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Telephone Access to GPs

A Study of London

Judy Allsop and Annabelle May

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by Judy Allsop
and Annabelle May

A report commissioned by
the King's Fund London Project Executive Committee

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Introduction

This report was commissioned by the King's Fund London Project Executive Committee in December 1983. Its main objective is to assess the need for, and the feasibility of, further research on access to GPs in the inner London area. We approached this by carrying out a literature review and discussing the question with members of the profession. The request for such a study was based on the premise that there are problems in need of investigation relating to telephone access to GPs. In this introduction, therefore, we first discuss why such problems are perceived to exist. We then outline the approach we have adopted in looking at the subject, and go on to describe the limitations of that approach, both in terms of the lack of relevant data and in the context of our own limited time and resources.

The perception of problems concerning telephone access to London GPs

Two major factors have contributed to the concern about and interest in telephone access to GPs. The first is the evidence, from research into primary care in London, that inadequacies exist in the present systems.

Out-of-hours access to GPs has long been a matter of concern to the profession, and to the various policy-making bodies responsible for the provision of general medical services. However, the report of a study group on primary health care in inner London (London Health Planning Consortium 1981), subsequently referred to as the Acheson report, provided ample evidence of inadequacy. There were difficulties, claimed the report, in making any telephone contact at all with some GPs or their deputies whether out of hours or during the day. Furthermore, GPs used a variety of different systems to provide telephone access. These systems functioned with different levels of adequacy, and they were poorly understood by patients and by other service providers. Little information was available on which systems were in use, or on their mode of operation. The large number of message handling and deputising services gave further cause for concern. These services were all organised in different ways. Acheson commented:

> 'The lack of information regarding the operation of message-handling services available to FPCs [family practitioner committees], other primary care workers and the public can lead to confusion and unco-ordinated provision of services . . . this lack of information, which clouds possible abuses of the system, reduces the effectiveness of the service available and scars the relationships between GPs, the public and other service providers.' (p 31)

The second factor is the rapid development of new communications technology. During the last decade a wide range of new equipment has been introduced and this raises a number of questions in relation to general practice. These questions concern the variety of systems on the market, the efficiency of the systems currently available, and the extent to which GPs as a group should be expected to use them as part of good practice management. Whose responsibility is it, for example, to ensure that new telecommunications technology is introduced into general practice and used for the benefit of patients seeking access to primary care?

These issues will continue to be relevant as telecommunications expand and diversify. British Telecom has been privatised and other companies are already providing alternative communications systems. As one GP commented to us, in his view the GPO used to provide a public service; it was then looked upon as part of the infrastructure of the community. Nowadays, it is regarded as a public utility providing, like other nationalised industries, a service subject to market conditions. GPs find it more difficult, possibly due to the expansion of other users, to obtain services to help them to keep in contact with their patients. The services they do obtain have to be paid for. With privatisation, the telecommunications industry will orientate itself still further towards market demands rather than consumer 'needs'. This changed relationship involves a reassessment of other roles and responsibilities in general medical care.

These two factors, changing technology and the inadequacy of existing arrangements, need to be considered against the background of the GPs' obligations in contractual terms. GPs are independent contractors. Their contract specifies only that they should be available for consultation by their patients, and that 'a doctor shall be under no obligation to give treatment personally if such reasonable steps as are appropriate are taken to ensure continuity of treatment'. The inference is that patients should be able to make contact with the GP or substitute doctor for consultation and treatment 24 hours a day, 365 days a year. The family practitioner committee (FPC) in each area has the general responsibility of seeing that an effective and efficient primary care service is provided. This means, specifically, that it must ensure that GPs keep to the terms of their contract. GPs must be available for consultation during surgery hours; and they must obtain consent to use deputising services (DHSS 1981 HN(FP) (81) 12).

According to the contract, therefore, doctors must be available out of hours. Today, it is commonly accepted that this means being available via the telephone. One case was brought to our attention of a GP who did not have a telephone at

all. In this situation, it would be within the power of the FPC to reach agreement about the installation of a telephone. What remains problematic, however, is whether particular standards should apply to the systems used for providing telephone contact. If this is so, who should set and monitor these standards?

During 1984, both the Department of Health and Social Security (DHSS) and the General Medical Services Council (GMSC) made various attempts at clarification. The autonomous status given to FPCs, to take effect from April 1985, will give them unambiguous responsibility for maintaining and developing adequate primary health care services. The circular on deputising services of May 1984 (HC(FP)(84)2) also gives FPCs a greater role in monitoring the adequacy of deputising services, and laying down conditions for their use. The GMSC developed a code of practice governing the operation of deputising services in the 1960s. It has now set up a working party which has recommended a code of practice in relation to answering services. Codes of practice, of course, are not mandatory in any way. They simply set out a professional standard so that GPs can make informed choices about the services they provide and use.

It was against the background of these perceived problems and the current responses to them that we set about gathering material for this report.

Objectives and structure

Our aims and objectives were to collect information on the ownership of telephones and access to them in the London area, in order to see what problems patients had. We also wanted to see how patients used the telephone in relation to general practitioner services, and to ascertain whether anything could be said about patients' level of satisfaction with the service. We wished, too, to see what attitudes doctors had towards using the telephone in general practice. We wanted to look at the systems which were in use, particularly for out-of-hours care. This involved looking at the deputising services, as these are used as a substitute for the patient's own GP.

We also aimed to review the difficulties of providing primary health care in London and to examine the systems that are currently in use. Here, we wished to determine whether the findings of the Acheson report had been broadly correct: that is, that problems existed that were particular to London. Finally, we hoped to make recommendations for further investigation, as we were aware that very little research has been done into telephone access.

Our report is structured around these issues. We have divided it into seven main

sections: Problems of primary care in London: patients and GPs; Telephone availability in London; Patients and the telephone; How do doctors see the telephone?; The use of the telephone in out-of-hours calls; Systems for handling out-of-hours calls; Systems for handling out-of-hours calls in London. The summary and conclusions are on pages 75-84.

It should be stressed at the outset that there are a number of limitations on what we have been able to achieve. It is particularly difficult to obtain data on telephone ownership in London, as 'London' is defined differently for different purposes. Apart from sources such as the General Household Survey (GHS), which collects national data on a sample basis, BT is the only source of information. BT do not break down their data on anything lower than a regional basis. The data we use in section 4 is, therefore, indicative of general trends rather than definitive. We could not attempt to use the 1981 Census data to describe the social and demographic characteristics of London. This task would have taken more time than we had at our disposal; and it was not essential to this report. We have therefore relied heavily on the most accessible source: *A Survey of Primary Care in London,* the report prepared for the Royal College of General Practitioners by Professor Brian Jarman, henceforth referred to as the Jarman report (Jarman 1981).

With our limited time and resources, it was impossible to collect any new data. We originally contemplated carrying out a small-scale survey of the types of answering system used by GPs, when we heard that a survey was being carried out for the BMA by MORI. We have incorporated the MORI material although it was really inadequate for our purposes, being solely concerned with GPs' *attitudes* to out-of-hours care. We have, therefore, concentrated on collecting together information on the means by which GPs make themselves available to their patients. This information is thin and inadequate; and almost non-existent when it comes to looking at London. We sought the views of a number of GPs about the question of telephone access to care. We came to the conclusion, however, that all of us were equally inhibited by the lack of systematic information about what systems GPs actually use, about the level of effectiveness of these systems and – last but not least – about what patients think of them.

SECTION 1

Problems of primary care in London: patients and GPs

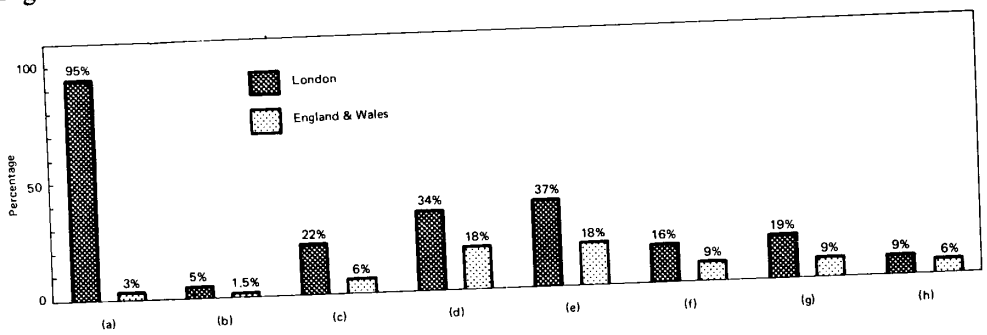
Problems related to the delivery of primary care services in London have been well documented in recent years. The Royal Commission on the NHS (1979) drew attention to these issues. The Jarman report (1981) described the socio-demographic characteristics of the population of inner and outer London and the pattern of service provision. The Acheson report (London Health Planning Consortium 1981) focused on the problems associated with the delivery of health services in inner London. It highlighted the combination of 'demand' and 'supply' which resulted in Londoners being unable to obtain good quality GP care. The report made a number of detailed recommendations for change. Many of these are still being discussed by the profession and by the DHSS.

Social characteristics of the population of London

The Jarman report took a number of indicators of the socio-demographic characteristics of those living in inner and outer London. There were marked differences between the population of London and that of the rest of England and Wales. These differences are shown in graphic form in Figure 1 (page 12).

Jarman suggests that the outer London boroughs – Enfield, Waltham Forest, Redbridge, Havering, Bexley, Bromley, Croydon, Sutton, Merton, Kingston, Richmond, Hillingdon, Harrow, and Barnet – have more in common in terms of socio-demographic characteristics with England and Wales as a whole than with other parts of London. The remainder of this chapter will focus on inner London. Jarman divides this into the West End zone (Kensington and Chelsea, Westminster, Camden, and Hammersmith) and the East End zone (Hackney, Tower Hamlets, Southwark and Newham). The West End zone has lower proportions of married-couple households, a higher proportion of one-person households and bedsitters, high population density, more tourists and visitors, a highly mobile population, a high crime rate, high suicide rates and high mental illness admission rates. The East End zone has relatively higher proportions of the lower socio-economic groups, more council housing, lower educational levels, a lower level of rate product, higher infant mortality rates, and higher sickness rates among economically active males. The boroughs of Islington, Greenwich, Lewisham, Lambeth and Wandsworth are classified as being 'intermediate'.

Figure 1 Social indicators in London compared with England and Wales



(a) Population density: persons per hectare
(b) Overcrowding
(c) Foreigners
(d) One-person households
(e) Householders lacking amenities
(f) One-parent families
(g) Illegitimate births (% of all births)
(h) Mobility (% moving house per year)

Source: Fry J. editor. (1983). Present state and future needs in general practice. Lancaster, MTP Press for the Royal College of General Practitioners, p 37.

Hounslow and Barking have the same characteristics as these intermediate zones, although they are not strictly speaking in inner London. Neither are the outer London boroughs of Ealing, Brent and Haringey. These are termed 'immigrant zones' as they have lower proportions of residents recorded as 'white', higher proportions of residents born in the new Commonwealth, India and Pakistan, higher proportions of mothers born outside the UK, and higher proportions of working mothers with children, than other parts of London.

These zones provide a device for summarising data and for suggesting that certain geographical areas will have particular sorts of problem in relation to primary health care services. For example, in areas where there is a highly mobile population people are less likely to be registered with local GPs, and less likely to be acquainted with practice procedure. People whose first language is not English may have difficulty in communicating their needs by telephone.

Need factors: vulnerability to illness in London

Overall there do not appear to be significant differences in the mortality and morbidity rates between London and the rest of the country. Jarman suggested that there were slightly higher rates of sickness among economically active males in the East End zone. Bone (1983) who collected information on self-assessments

of health status as part of her study of non-registration in inner London, found similar rates of self-reported sickness to the GHS. Eleven per cent of her sample said that their health was not good, and a third said they had a chronic health problem. This included 19 per cent who said that the problem limited their activity in some way. Four per cent of adults needed help when they ventured out of their homes, and one per cent were housebound. Eleven per cent of adults said they suffered from frequent or long periods of nervous trouble or severe depression.

After childhood, reports of ill-health increase with age. Thus less than one per cent of 16 to 19 year olds viewed their general health as not good, compared with nearly a third of those over 79. Similarly, under 20 per cent of young people aged 16 to 19 reported a chronic health problem, but over 70 per cent of those over 79 did so. Not unexpectedly the proportions of people who needed help to get out, or who were housebound, also increased with age. Nearly 60 per cent of the people over 79 needed help to get out; 15 per cent were actually housebound.

In terms of special needs the Jarman report found that there was a concentration of mental illness in inner London, particularly in the West End zone. Suicide rates and mental illness admission rates were 44 per 100,000 in Kensington, Chelsea and Westminster (KCW), 19 per 100,000 in inner London as a whole and 12 per 100,000 in England and Wales.*

Kensington, Chelsea and Westminster also had very high rates of mobility, and of non-registration with GPs. Using migration into a district as an indicator of mobility, the highest rate in the country is in Kensington and Chelsea. An analysis by the Office of Population Censuses and Surveys (OPCS) of the 1981 Census figures showed a mobility rate of 21 per cent in this borough. This rose to 30 per cent for people aged 25-34 and to 43 per cent for 16-24 year olds. The average for Britain was 9.6 per cent (Devis 1983).

A high mobility rate will affect the work of GPs. There is some evidence that new patients create more work as they tend to consult more often; 4 times a year compared to 3.8 for established patients. The Children's Committee study on *Out-of-Hours Social and Health Care* (Children's Committee 1980) suggests that some practices are reported as being unwilling to accept temporary residents and

*It has recently been argued that from the perspective of general practice the morbidity patterns for mental illness recorded in inner London are similar to those recorded nationally (Harris 1984).

may decline any telephone call received from a patient not registered with them. The Committee comments that these 'transients', among whom are some of the children most in need of medical and social help, are denied care because they cannot register. As a consequence doctors will not come out on a house call.*

We know from Bone's study that there are high levels of non-registration in certain parts of central London compared to the rest of the country. Nationally, only one per cent of the population are not registered with GPs. In inner London this rises to five per cent. The overall figure disguises wide variations. The proportion of unregistered patients was 10 per cent in Westminster, 12 per cent in Camden and 23 per cent in Kensington and Chelsea; while in some areas the rate was possibly as high as 30 per cent. Bone attempted to establish whether this non-registration was voluntary or whether people had tried to register and failed. Her findings suggest that about four-fifths of those unregistered had this status by choice or from inertia. About half of those unregistered had a private doctor. Bone found that about 20 per cent of those unregistered had tried to do so, but failed, or had not tried because they expected difficulties. This group amounted to one per cent of all Londoners: 50,000 people. The elderly were slightly more likely to find themselves in this position than others.

Farmer and Chambers (1982), in their study of the relationship between the use of accident and emergency departments and the availability of GP services, found 'striking differences' between inner and outer London hospitals in the proportion of patients attending who were both local and registered. In the central hospitals a much higher proportion of the patients were resident, but had no local GP. The highest proportion of non-registered patients was in the 15-34 age group. Farmer and Chambers conclude that their study provides direct evidence to suggest that registration is less prevalent in the central London population than elsewhere. Also, patients who are not registered tend to bring less severe complaints to an A and E department than registered patients.**

Bone also looked at the distance between people's homes and their GP's surgery. Greater distance could bring greater reliance on access to a telephone. Knox comments that:

> '...in British cities where large sectors of the population are still without private transport, the actual distance from home to surgery is critical. Half a mile

*If this is in fact happening, doctors could be in breach of their terms of contract.

**In this context, it should be noted that only patients who presented at the departments with a *new* episode of illness were researched.

> pram-pushing distance is often regarded as the upper limit for mothers with pre-school children and the elderly; travelling more than this by public transport may involve a long wait or a change of bus, unless both home and surgery lie conveniently near a bus route.' (Knox 1979).

There has been little detailed work done in London on these aspects of access to medical care. Knox's work in other cities suggests an inverse care law. Poorer people are less likely to have cars, and are also less likely to have telephones. In social class I, more than nine out of ten households have at least one car. In social class V, three out of ten have a car. We discuss the relationship between income and telephone ownership elsewhere.

Bone's work indicates that while a slightly greater percentage of Londoners than other urban dwellers lived within a mile of their GP's surgery, those who did not had more difficult journeys to make. It is worth noting that distance from the surgery does appear to reduce consultation rates. There is no information on the extent to which this is compensated by telephone consultations.

The elderly and health care in inner London

Inner London has slightly higher proportions of elderly people than the country as a whole: 15.7 per cent compared to 14.5 per cent. However the proportions are higher in certain boroughs: 18 per cent in Westminster for example, and 16.2 per cent in Southwark. There are also higher numbers of elderly people living alone and in poor housing. Fourteen per cent of the elderly live alone in inner London compared to 11.9 per cent in England and Wales. The proportion rises to 14.4 per cent in Kensington, Chelsea and Westminster (KCW) and Camden. Elderly people are more likely to remain in their own homes in Great Britain than in other countries, where institutional rates are much higher. For example, the rate is about 6 per cent in England compared to 11 per cent in Canada. Snow comments that people incapacitated in old age in London are handicapped in several directions. They are much less likely to have relatives close at hand to provide any help. Higher levels of social services are insufficient to compensate for this lack (Snow 1981).

Ethnic minorities and health care in London

The relationship between the ethnic minority communities and the health services is a subject that is receiving increasing attention. We can only touch on it briefly here. London is home for large numbers of people of Asian, Afro-Caribbean and Mediterranean origin. The National Dwelling and Household Survey

(NDHS) showed that among the London boroughs, Brent had the highest number of non-white heads of household with 13.8 per cent Afro-Caribbean and 12.9 per cent Indian, Bangladeshi and Pakistani (DoE 1979). Hackney came next, with 16.1 per cent Afro-Caribbean and 3.4 per cent Asian. Ealing had the highest number of Asian heads: 15.2 per cent. Next came Newham and Tower Hamlets. (It should be noted, however, that these statistics relate only to country of birth, and to self-reported ethnic group. Also, they are now nearly eight years old.) The Spitalfields Health Survey (SHS) found that 63 per cent of their random population sample were living in households headed by someone born in either the New Commonwealth or Pakistan, while only 40 per cent spoke English as their mother tongue (Lauglo 1984).

According to the GLC report, *The National Health Service and Ethnic Minorities* (GLC 1982), over 70 per cent of Pakistani women speak little or no English. In addition to cultural barriers and the religious sanctions which forbid Muslim women to seek help from male doctors, such communication difficulties must make access to local GPs – particularly via the telephone – extremely difficult. In the Ethnic Health Project 1979-80, an attempt was made to evaluate the perceived health needs of London Asian and Afro-Caribbean communities through telephone consultations with health professionals. Sixty per cent of the incoming calls were made by Asian men on behalf of women. Women who called in asked to speak to a woman doctor, and were often fearful that their husbands might discover that they had been speaking to a stranger (Webb 1982). In Asian households, decisions on health matters are usually made by males. Thus women's symptoms are frequently reported to doctors at second-hand.

The NDHS demonstrated that the ethnic minority communities were more likely to be living in overcrowded conditions and in sub-standard housing than the remainder of the population. The ethnic minority groups are therefore particularly vulnerable to the health problems associated with such socio-economic factors as high unemployment, low income and poor environment (GLC 1982; Rathwell 1984). Respondents in Spitalfields, for example, perceived that their major health problems were linked with housing and rubbish collection (Lauglo 1984). Ethnic minority and immigrant communities are also at high risk from accidents, both at work and in the home, often caused by either language/literacy problems or to unfamiliarity with machinery or equipment (GLC 1982).

Family structures would also appear to indicate a high need for access to primary health care. Although there are fewer older couples or elderly single persons living alone to be found among the ethnic groups, there are higher proportions of large

families and of children. The NDHS found that 30 per cent of West Indian and 35 per cent of Indian, Bangladeshi and Pakistani households consisted of what the survey defined as large families, as opposed to 13 per cent of whites. The average size of household varied from 2.7 for whites, and 3.7 for Afro-Caribbeans to 4.3 for Indians, Bangladeshis and Pakistanis. The 1984 Spitalfields study found that over one-third (36 per cent) of its population sample consisted of children. It is a cause for concern that in the country as a whole, both perinatal and infant death rates are higher than the average among ethnic communities. In Greater London, while the perinatal mortality rate is marginally lower than the national average (reflecting the accessibility of intensive care for high-risk new-born babies) the infant death rate is still higher (GLC 1982).

Many studies record widespread discontent among the ethnic population that their health care needs are not given sufficient attention by the NHS (Brent CHC; GLC 1982). Webb reports that the impression gained from speaking on the telephone to over 2,000 ethnic minority callers was that they were 'discontented and disturbed' with the help they were receiving from the NHS (Webb 1982). The Spitalfields Health Survey also makes the point that Asians found the health services less satisfactory than other groups (Lauglo 1984).

The pattern of general practice in London

> 'If we consider the medical facilities available to the populations in these different parts of London we find that generally speaking the areas with the worst social problems have the least suitable primary care services available to them. . .' (Jarman 1981, p 2)

General practice in inner London differs in a number of important respects from practitioner services in other parts of England and Wales. It is not the purpose of this study to explain why this is so. These issues are extensively discussed in the Acheson report. Our aim is simply to outline the characteristics of the services available in order to provide a context for our account of the telephone systems in London.

At the time of the Jarman report, there were fewer health centres and fewer practices employing nurses in inner London than elsewhere. GPs were less likely to have health authority nurses attached. Twenty-five per cent of practices in inner London had attached nurses. The rate for England and Wales as a whole was 68 per cent. The lowest rate of attachment was in Camden and Islington: 15 per cent. There had been a failure to move away from single-handed practice. Sixty per cent of GPs in inner London were not in group practice; this rose to

79 per cent of GPs in KCW. Inner London had a disproportionately large number of elderly, single-handed GPs practising with reduced lists. They continued to receive the full practice allowance, but limited their lists to around 1,000 to 1,500 patients. Almost one quarter of the GPs in KCW, and Camden were over the age of 65 (22.6 per cent). This pattern of practice encouraged an extensive use of deputising services. This high use of deputising services is probably also influenced by the large number of GPs in London who live some distance from their practice premises. Bolden (1981) has calculated that in City and East London 49 per cent of GPs lived at their practice premises, while 23 per cent lived elsewhere in the same borough, 30 per cent lived in an adjoining borough, 24.4 per cent lived in the next but one borough and 13.2 per cent lived further afield.* It seems likely that the quality of practice premises in London is relatively low.

The regional medical officers (RMOs), in their evidence to the Acheson committee, estimated that only one quarter of the practice premises in inner London came within the standards recommended in the Statement of Fees and Allowances. The status of this DHSS document is only advisory, but it does give some indication of the shortcomings of many London practices. The RMOs estimate that 15 per cent of premises fell below a standard which could be considered acceptable for the provision of general medical services. The Acheson committee were in no doubt that the evidence they received regarding the unsatisfactory nature of many premises in inner London reflected a real problem.

It is likely that all practices in London now have telephones. What is not known with any precision is how messages are taken and handled by and for doctors, both in and out of hours, and how this varies with the type of practice. It may be that the high number of single-handed practices affects telephone accessibility. This question is discussed further in section 7.

*As far as we know, no comparable figures are available for other parts of the country.

SECTION 2

Telephone availability in London

There are difficulties in obtaining a clear picture of telephone availability to consumers in the London area because of the lack of good data. First, information on telephones relates to geographical areas which do not coincide with local government or health service regional boundaries. Second, the information which exists on telephone availability cannot be readily disaggregated to smaller areas within London, coterminous with boroughs, FPCs or district health authorities (DHAs). Third, it is difficult to relate telephone ownership to other socio-economic variables with any precision. It is not possible, for example, to look at rates of telephone ownership in Tower Hamlets or Kensington and Chelsea and relate this to income band or housing tenure. All that can be done is to use what information is available to suggest that problems may exist in certain types of area in London and among particular groups of the population, drawing inferences from available sources and small-scale studies.

Telephone ownership

One indicator of telephone availability is telephone ownership. The main source of information on this is British Telecom. A map is shown of BT London (Figure 2, page 21). This shows management areas, each of which contains a number of exchanges. The new General Household Survey (OPCS 1984) includes figures on telephone ownership for the first time. These are based on a national sample survey and relate telephone ownership to socio-economic group (SEG) and housing tenure (see Table 1, page 20).

Another source is the National Readership survey. Information on telephone ownership based on this source was collected together in a useful booklet, *Telephone Availability, 1982,* by the Market Research Development Fund (1983). The regions used in this are ITV regions and the Registrar General's regions. Information is not disaggregated down to smaller areas, but the data is interesting and suggestive.

All the indications are that telephone ownership in the London area is higher than for the rest of the country. Eighty per cent of heads of households had telephones in London (ITV) in 1982, compared to 73 per cent in the UK as a whole. The rate of telephone penetration has been steadily rising over the last

Table 1 Percentage ownership rates of telephones in different household types and tenure groups

Tenure group	Owner occupied Outright	Owner occupied with mortgage	Rented with job/business	Local authority new town	Housing association	Unfurnished private	Furnished private	Total population
% with telephone	83	92	79	60	63	59	44	76

Size of household	1 adult	2 adults	Small family	Large family	Large adult household	2 adults: 1-2 over 60	1 adult 60 or over	Total population
% with telephone	63	82	70	74	87	76	58	76

Economically active heads	Prof/managerial	Intermediate non-manual	Junior non-manual	Skilled manual	Semi-skilled	Unskilled manual	Total population	Economically non-active heads
% with telephone	96	89	86	79	66	50	81	(66)

Usual gross weekly household income (£)	< 40	40-60	60-80	80-100	100-120	120-140	140-180	180-250	> 250	Total
% with telephone	51.5	53	62	66	71	76	75	87	95	73

Source: The General Household Survey 1982 (OPCS 1984)
Tables 5.26, 5.27, 5.28, 5.29

decade. Figures from *Regional Trends 1982* (Central Statistical Office 1983) indicate that telephone ownership among households has doubled. In 1969-70, for the country as a whole, 33.5 per cent of households had telephones; in London and the South East 47.3 per cent had telephones. In 1979-80, the proportions were 69.4 per cent compared to 78.1 per cent. In the past, the rate of telephone ownership was related to both income and the technical capacity of the telephone system. BT claim there is now no waiting list for telephones, so ownership is related to income and preference.

Figure 2 British Telecom: London

Source: British Telecom (1984).

Although it has not been possible to obtain figures on telephone penetration in different parts of London, the data from MRDF and other research studies indicates that there are particular groups in the population which have lower rates of telephone ownership than others.

From the national data, it is clear that there is a correlation between telephone ownership and social class. On the MRDF figures, 95 per cent of heads of households in social grade A owned telephones while this dropped to 45 per cent in social grade E. Sixty-two per cent of households with a chief wage earner net income of £1,450 or less own telephones while in the £10,850 bracket this rises to 96.8 per cent (personal communication, BT 23.5.84). This trend is confirmed by the GHS figures (see Table 1, page 20) which gives telephone ownership by SEG and income.

This data suggests that in areas of London with higher numbers of lower socio-economic groups, there are likely to be significantly lower rates of telephone ownership. On the basis of the data collected for the Jarman report (Jarman 1981), there are likely to be lower rates of telephone ownership in East London, particularly City and Tower Hamlets.

Lower socio-economic groups, as a number of studies have demonstrated (DHSS 1980, have higher mortality and morbidity rates. Lack of telephone ownership is therefore an additional disadvantage because it inhibits easy access to GPs. There are a number of other indications of an inverse care law among particular groups in the population.

The elderly

Older people, particularly the very elderly, are more vulnerable to illness. They are also more likely to have problems of access to GPs because of immobility. Telephone ownership among adults over the age of 65 is less than the average. In 1982, average adult telephone ownership in the UK was 77 per cent whereas the ownership rate for those over 65 was 66 per cent (MRDF 1983).

Audrey Hunt, in her survey of the elderly at home in 1976 (Hunt 1978), looked at access to telephones. This was assessed in terms of a telephone for 'their own use'. At that time, 44 per cent of households had a telephone, but the rate was 39 per cent among those where an elderly person was head of the household. Only 35 per cent of the elderly living alone had a telephone. Thirty-five per cent of households with a head aged 85 or over had a telephone.

In her survey, Hunt concludes that:

> '... it must be a cause for concern that less than half the elderly population live in households with a telephone. It is particularly disquieting that only just over one-third of those living alone have a telephone.' (p 106)

These findings need to be seen in the context of access to other means of communication. Two-thirds of elderly persons lived in households with no car; while 85 per cent of the elderly living alone had no car.

The overall figures of access to telephones among elderly households as a whole mask differences between socio-economic groups. These are discussed by Hunt in terms of tenure group: 59 per cent of elderly owner-occupiers had telephones, while this fell to 32 per cent for private tenants and 22.7 per cent for council tenants.

The elderly are likely to have greater need for a telephone in an emergency. So Hunt also collected information on the proximity of the telephone to the elderly person's bedroom. Most telephones were 11 or more steps away.

The data from Hunt's survey is now eight years old, and we have seen from the figures quoted above that rates of telephone ownership have increased, and that they are higher in the London region than elsewhere. Furthermore, the social services departments in some London boroughs have pursued policies which aim to provide telephones for people who are permanently and substantially handicapped, chronically sick or elderly and isolated. In England and Wales as a whole 10,400 telephones were installed by local authorities in 1982. However, this was two-thirds of the 1976 figure, possibly as a result of cuts in public expenditure (Ramprakash 1983).

The 1984 GHS figures, given in Table 1, show an overall improvement. Over three-quarters of two-adult households with one adult over 60, and 58 per cent of one-adult households over 60, have a telephone. In the latter group, those living in non owner-occupied tenancies would be the least likely to have a telephone. There are higher than average numbers of single elderly people living in London. In inner London, particularly KCW, Camden and Islington, there are higher numbers of elderly people living alone than in England and Wales as a whole: 13.8 per cent compared to 11.7 per cent (Jarman 1981). The 1981 Census figures (Hollis 1983) indicate a further rise in the elderly population.

Small-scale studies have indicated pockets of deprivation. A study carried out in

Hammersmith in 1979 looked at 170 well, non-housebound elderly people (North Hammersmith and Acton Community Health Council 1980) and found that 55 per cent had no telephone. In 1980 a borough-wide survey of the elderly in Hammersmith and Fulham (Campbell, Mitchell and Earwicker 1981) found that 50 per cent had no telephone. This study also showed that Hammersmith and Fulham had a larger than average percentage of pensioners living alone, 38 per cent compared to 28 per cent nationally. There was a still higher percentage of the very elderly (over 75) who lived alone: 52.6 per cent compared to 35 per cent. These findings could probably be replicated in other inner London boroughs.

The Hammersmith survey comments that elderly people show an almost universal desire for a private and independent life. Telephones were high on the list of their priorities, both as a means of communication with friends and relatives and for providing access to primary health care services such as the GP, the district nurse or the chiropodist.

Families with children

Families with children are another group with a particular need for ready access to GPs. Households with children are marginally more likely to have telephones than households without children: 78 per cent as compared to 70 per cent (MRDF 1982). These figures are confirmed for London through information provided by BT, shown in Table 2.

Table 2 Telephone ownership in households with children

Household composition	*% Telephone ownership*
Adults only	80.5
Adults and children	91.6
Adults and infants	85.3
Adults and children and infants	86.0

Source: British Telecom: Personal communication, 23 May 1984.

However, this overall figure is again likely to disguise pockets of disadvantage. For example, households of six or over (probably containing a large number of children) have lower rates of telephone ownership. This is confirmed by the GHS figures (see Table 1, page 20). Furthermore, while 95 per cent of social grade A heads of households own telephones, only 45 per cent of social grade E do so. The MRDF study takes another variable for telephone ownership – 'acorn groups' –

which are based on area and housing type. These indicate higher telephone ownership by heads of households in 'affluent suburban housing' (87 per cent) compared to 'the poorest council estates' (54 per cent).

Osborn, Butler and Morris (1984) devised a 'social index score' using a number of social indicators on the basis of which groups were ranked from the most advantaged to the most disadvantaged. Telephone ownership in the most advantaged was 92.9 per cent; among the most disadvantaged it was 22 per cent.

No detailed information is available for London. Although telephone ownership as a whole is higher, the inference is that areas with high levels of deprivation (areas with poor quality council housing, lower than average incomes, higher proportions of large families) will also have lower levels of telephone ownership. The Jarman report suggests that these areas would include City and East London – that is, Hackney, Newham, Tower Hamlets and Southwark. Council house ownership is 44.2 per cent in City and East London compared to 21.3 per cent in outer London. City and East London also have 13.1 per cent of social class V compared to 5.1 per cent in outer London, as well as higher rates of reported sickness.

There are no figures available regarding telephone ownership among ethnic minority groups, for the reasons described above. However it is likely that ethnic minority households will have low telephone ownership and be in areas where access to public telephones is difficult. This lack of access may be compounded by poor command of English, and problems in handling complex call transfer systems (see section 6, pages 50-62). Shackman (1984) comments further that command of English may disappear when people are frightened, tired, under stress, or ill.

In conclusion, it can be said that the groups who need health services the most – the elderly and lower income families with children – are also the least likely to own telephones.

Telephone failure rate

Telephone ownership does not necessarily guarantee an effective means of access to primary health care. BT says that on average customers' telephones in London go out of order about once every two years, although they claim that 85 per cent of reported faults are cleared by the end of the next working day. The local call failure rate, according to BT, is 2.5 per cent. One per cent of faults are apparently due to overload at the exchange (British Telecom 1984).

Consumers' Association survey figures, based on a diary record kept by a panel of *Which* readers throughout the country (Consumers' Association 1984) give a less optimistic picture. For local calls, the most likely to be used when calling a GP, there were more 'unsatisfactory' calls recorded in 1983 (8 per cent) than in 1975 (7 per cent). There had been an improvement in obtaining a dialling tone, but other faults – no ringing tone, a number unobtainable, a noisy or faint line – had increased.

BT's figures estimate a much higher level of failure due to what they call 'customer faults' than to technical reasons. One per cent of calls were said to be due to BT failure, while 7.5 per cent of calls were attributed to customer error.

Which estimates that there is a higher rate of out-of-order telephones in the London area than in other parts of the country. Seventy-five per cent of telephones in the Greater London area were reported out of order by *Which* readers in the 18 months prior to September 1983. Twelve per cent of this sample had to wait a week or longer for a repair.

Access to public telephones

BT's policy is to provide a public telephone where there is a perceived need, reasonable expectations of usage, and a site available. In BT London there are 10,800 public telephones. Over the past five years distribution has hardly changed. The decision to install a public telephone is made by the local telephone manager.

A major problem with public telephones is the fault rate. In the *Which* survey, 50 per cent of the panel had used or had wanted to use a telephone box in the previous month. Forty per cent of this group found that the first telephone they wanted to use was not in working order. Only half found a telephone which worked on a second attempt. In a further survey, 24 per cent of non-telephone owners who had used a telephone box in the previous month found the first box they tried was not working. In half of the cases, the box would not accept money. In a much smaller number of cases the box had been vandalised. Table 3 shows the figures. Problems were found to be much greater in cities than in rural areas. London was said to have 50,000 cases of vandalised telephones a year.

BT informed us that no figures were available on vandalism in London, but in an article in The Guardian (2nd June 1984) a BT spokesperson commented that vandalism was so commonplace, especially in inner city areas, that it was impossible for them to say how long a call box might have to wait for repair. BT

Table 3 Reasons for telephone boxes being out-of-order

50% didn't accept money
18% equipment vandalised
17% line was dead
8% money went through
7% other

Source: Which Magazine, February 1984.

also claimed that all public coin telephones make a loss. £70,000,000 was lost last year: approximately £1,000 per call box. This amount was made up from the cost of repairing damage, paying for the equipment and emptying the boxes.

In areas where telephone ownership is low, for example on particular council estates, difficulties of access must be very great. Elderly people in the North Hammersmith and Acton survey (1980) said that access to telephones was difficult, even dangerous, at night and asked for more public telephones to be provided at strategic, well-lit points. Out-of-order telephones can also cause problems for doctors attempting to make emergency arrangements for their patients.

British Telecom's plans for the future

By the end of 1985, BT plans to replace 80 per cent of pay-on-answer telephones with a new microprocessor controlled dialling system called the 'blue payphone'. This is for pre-payment calls. The caller pays in advance, a digital display indicates how much money is left, warns when it is about to run out, and refunds unused coins at the end of the call. The microprocessor in the telephone can tell the exchange when the coin box is full, or if there is a fault. Telephones should get repaired and emptied more quickly. However some pay telephones may take only 10p and 50p coins, while others will need 5p, 20p and £1 coins.

The remaining 20 per cent of pay-on-answer telephones will be replaced by telephones where the caller uses a card rather than money. As these telephone boxes do not contain cash they should be less attractive to vandals, but the ownership of cards will involve a degree of pre-planning. It is necessary to pay a sum of money in advance and will not, therefore, improve access for disadvantaged groups.

The future of telecommunications is made more uncertain by government's plans

to turn BT into a limited company. Under the present Act of Parliament, BT will be granted a licence to operate the telephone system as long as it complies with certain conditions. These include an obligation to maintain services which currently lose money, such as public telephone boxes. However, there is likely to be great commercial pressure to reduce the number of loss-making boxes.

The pressure of market forces and the need to make profits may not necessarily make telephone ownership any more accessible to the groups whom we have already defined as disadvantaged. In 1984 new telephones cost £75 to install, plus £35.95 to buy the cheapest equipment. These costs, in addition to the annual rental fee, are likely to put telephone ownership beyond the pocket of a section of the population, particularly those whose demand for emergency health care is the greatest.

SECTION 3

Patients and the telephone

This section will look at the use of the telephone by patients in relation to their GP services. An editorial in the *British Medical Journal* (1978) remarks that a common opinion is that the telephone is a useful tool when doctors take the initiative but is considered to be nuisance when used by patients wanting to speak to their doctor. It has to be acknowledged that this is an assumption which recurs in the literature. The patient's viewpoint, with some notable exceptions, remains largely undocumented.

Patient's telephone contacts with GPs are likely to occur in a number of circumstances, therefore our discussion is organised under five broad headings: enquiries about registration; consultation; making appointments; repeat prescriptions and diagnostic tests; requesting a home visit. Brief reference is made to recent changes in general practice.

Enquiries about registration

Potential patients are likely to telephone a doctor's surgery with enquiries about registration. The Acheson report (London Health Planning Consortium 1981) points out that because of inner London's high population mobility there is always a large number of people waiting to register with a GP. Inner London GPs can therefore be selective, claims Acheson, and there may be a temptation to avoid accepting either patients who are transient or those who may demand a high degree of GP involvement (see Downham 1978; El Kabir 1982). A recent study of five practices in the densely-populated Camden area of London found receptionists active in keeping 'undesirables' off doctors' lists (Jefferys and Sachs 1983). Bloomsbury Community Health Council, in a study which aimed to discover the difficulties of registering with a doctor in an inner city area, conducted a telephone survey of every general practice listed by the FPC in the Bloomsbury Health District: a total of 62 (Bloomsbury CHC 1982). Each practice was telephoned during surgery hours. The study found few difficulties of access during this period, but concluded that there were very real difficulties in actually registering with a doctor, particularly for the elderly. Only 26 out of 184 surgery contacts had to be telephoned two or more times before response. However they noted that a number of calls were re-routed by the exchange, and commented:

'Where a patient had easy access to a phone this would not be too difficult,

> but for someone using a public telephone this could have been costly, time-consuming and inconvenient.'

Six out of the 184 proved to be 'no contacts' – no one had been contacted after four attempts. These, and 73 per cent of those telephoned two or more times, were single-handed practices.

Consultation

The BMJ editorial (1978) states that in other countries the telephone is used more readily by patients than it is in Britain. Consulting a doctor by telephone, claims the writer, is both cheaper and more convenient than asking him (or her) to visit – although, in Britain, neither the ethical nor the legal pitfalls of telephone consultation have received any consideration or publicity. To our knowledge, no systematic research has been carried out in this area.

According to the General Household Survey (OPCS 1984), 11 per cent of males and 15 per cent of females consulted their doctors in the 14 day reference period. Of these, 6 per cent did so via the telephone. Watts (1971) suggests that there is a real place for telephone medicine 'so long as the caller is not upsetting surgery time or just trying to jump the queue'. The head of a department of general practice in a London teaching hospital commented to us that in his experience patients who telephoned for advice were 'trying to reach the doctor through the back door', and that he would always ask them to visit the surgery. Such patients, he believed, were frequently masking 'hidden requests'.

In a recent OPCS investigation of access to primary care (Ritchie, Jacoby and Bone 1981), researchers found that one-tenth of their sample had been given advice by their doctor over the telephone instead of seeing him or her, and that four out of five of these patients were satisfied with this situation. Informants in higher social class groups were more likely to have been given advice by telephone. This last finding is consistent with research done in the USA by Pope, Yoshioka and Greenlick (1971), who found that a greater proportion of those higher in occupation, income and social class were more likely to use the telephone for reporting symptoms of new morbidity:

> 'Higher dependency and low knowledge appear to greatly depress the use of the telephone services among those in the lower socio-demographic categories.'

Arber and Sawyer (1979) also found social class differences in the proportion of

their respondents who had tried to speak to the doctor on the telephone: 40 per cent of class I; 25 per cent of classes IV and V. Of those who had tried to speak to the doctor and failed to do so, 10 per cent were in classes IV and V, 5 per cent in class I. Similar differences became apparent when patients were asked about their willingness to use the telephone in future. Sixty per cent of class I and 40 per cent of classes IV and V were willing.

There is also some evidence to suggest that women use the telephone for consultation more frequently than men. In a study over six months of telephone use in a small, single-handed practice in Israel with predominantly professional patients, Weingarten (1982) recorded 350 calls. Requests for appointments were excluded. Two out of three calls involved female patients. Older women used the telephone the most; younger men the least. However, in 44 per cent of Weingarten's cases, calls were made on behalf of children, usually by the child's mother.

Ritchie, Jacoby and Bone (1981) found that telephone consultations were more frequent in households with children, particularly children under five. The General Household Survey (OPCS 1984) records that consultation rates generally have increased, most noticeably in children aged 0-4 years. Numerous American studies testify to the importance of the telephone in paediatric care (see, for example, Brown and Eberle 1974, who claim that paediatricians use the telephone twice as much as other specialists; Greitzer and others 1976; Perrin and Goodman 1978; Levy and others 1980; Brown and others 1982). Caplan and others (1983) note that in the USA, 17 per cent of all medical contacts on behalf of children are by telephone.

Holohan (1978) examined the relationship between acute illness, socio-economic factors and aspects of utilisation in children in a town in the north of England. The medical and social characteristics of a random sample of 360 children ill enough to require admission to a paediatric unit were recorded. Several case studies are described in detail. One of Holohan's findings was that many families experienced considerable difficulties in contacting their doctors by telephone in the mornings, when surgeries and previously arranged home visits made extra demands on the GP's time. The majority of patients surveyed did not own a private telephone and had to rely on public call boxes, which frequently proved to be vandalised. While out-of-hours calls were promptly attended by both GPs and deputising doctors, Holohan concluded that many children could be at risk in the morning period. The families of these children, she argued, were disadvantaged in their access to primary care by their lack of private transport and private telephones.

Simpson (1979), in a study of access to primary care which concentrated mainly on children and on old people, carried out two surveys of a sample of 300 patients in the London Borough of Hackney and in the Maryport/Cockermouth area of Cumbria. In Hackney, the doctors were older than the average and 9 out of 13 practices were single-handed. The average number of patients was low: 1,765. Simpson found that less urgent out-of-hours calls generated anxiety and conflict in the patients. Parents in particular found it hard to decide whether to consult about their children, and were very anxious about receiving a critical reception. Some doctors, claimed Simpson, were over-hostile to calls from worried parents and this in turn produced inhibitions which could affect later consultations.

The Acheson committee, which reported the 'overwhelming impression' that it was difficult for patients to contact GPs out of hours, recorded evidence regarding children from the Greater London Specialists in Community Medicine (Child Health). This group expressed their disquiet that it was a common experience for London parents to have to dial two or three numbers before getting through to an agency who then could not tell them when the doctor would call.

> 'When a doctor's phone is transferred to a deputising agency, a mother cannot obtain any advice or reassurance from a doctor; she is offered a call from a strange doctor or nothing.' (London Health Planning Consortium 1981, p 30).

Concerned parents, it was claimed, frustrated at their inability to obtain advice from the GP, would then take their children to an inner London A and E department.

Making appointments

Many of the incoming calls to the doctor's surgery during the day are concerned with making appointments, particularly calls to group practices or health centres, the types of practice most likely to use appointment systems. The DHSS report, *Health Care and its Costs* (1983), states that between 1971 and 1981 the proportion of family doctors in group practice rose from 58 per cent to 75 per cent, the number of health centres rose from 270 to over 1,000, and the proportion of GPs working in health centres rose from 8 per cent to 25 per cent. The proportion of practices using appointment systems has increased from 15 per cent in 1961 (Cartwright 1967) to a current level of about 75 per cent (Cartwright and Anderson 1981). One survey of 1,038 adults in inner and outer London, conducted in 1977, found that only 38 per cent of single-handed doctors had

appointment systems. However, 66 per cent of doctors practising in partnerships of two or three doctors or more, and more than 90 per cent of larger partnerships and health centres had them (Arber and Sawyer 1979). The same study also found that the patient's average distance to the surgery increased as practice size increased. While over 40 per cent of people attending single-handed practitioners lived within a quarter of a mile of their doctor, only 16 per cent of those who attended health centres did so. Such patients will be more dependent on access to a telephone, particularly given travel difficulties in London.

Appointment systems, as various studies point out, have advantages and disadvantages for the patient (Bevan and Draper 1967; Jefferys and Sachs 1983). They have introduced an intermediary into the doctor/patient relationship – the receptionist. When the patient wishes to make an appointment, it is the receptionist who is the 'front-line' contact. Receptionists can be characterised as umpires, buffers, amateur diagnosticians or, as noted above, gatekeepers (Jefferys and Sachs 1983). According to one study, 91 per cent of patients said that the decision about how soon they could get an appointment was made by the receptionist (Cartwright and Anderson 1981; see Fischer and Smith, 1979, for a US comparison). Patients can perceive the receptionist as a barrier (Arber and Sawyer 1979; Cartwright and Anderson 1981; Consumers' Association 1983). Cartwright and Anderson found that over a 12 month period, 1 out of 8 patients whose doctor had an appointment system had been put off trying to consult the doctor on some occasion because of the need to make an appointment. Morrell and Nicholson (1974) reported a 25 per cent drop in consultation rates following a move to a purpose-built health centre.

Arber and Sawyer found that 40 per cent of their respondents without telephones were involved in the inconvenience of two trips to the surgery every time they wanted to see a doctor. They quote one patient:

> 'If you're *very rude* to the receptionist you get an appointment the same day, but *usually it's four days* at the earliest.' (Chapter 5, p 22)

Kensington, Chelsea and Westminster Community Health Council (1977) also reported that a three to four day wait was 'normal'. Farmer and Chambers (1982) asked patients who had made no attempt to contact their own doctor before going to accident and emergency departments why they had not done so.

> 'The reasons most frequently given were that they believed their general practitioner would not be available or that they believed an appointment was necessary.' (p 38)

These problems are more acute for those who depend on public or neighbours' telephones. During surgery hours, doctors' telephone lines may be continuously engaged (Kensington, Chelsea and Westminster CHC 1977; Holohan 1978; Arber and Sawyer 1979; Consumers' Association 1983). Arber and Sawyer suggest that the elderly have even more difficulty. They found that while 56 per cent of those aged under 65 without telephones in their homes still normally made their appointments by telephone, this only applied to 21 per cent of those over 65 (Arber and Sawyer 1979).

When Bevan and Draper (1967) asked doctors which sort of patients they perceived as being unable or unwilling to make appointments, 20 per cent replied 'the elderly'; 15 per cent, 'people of low intelligence'; 14 per cent 'working-class people'. Appointment systems, Arber and Sawyer argue (1982), while favouring those groups who are more likely to consult for preventive care and care for chronic conditions, may also favour the more articulate patients: 'those who are more used to coping with bureaucratic procedures and those who are more familiar with using telephones'. This situation could further deepen known health inequalities. People with a higher incidence of need are both *less* likely to have their own telephones and *more* likely to be dependent on public transport.

Repeat prescriptions and diagnostic tests

The telephone can also be used for obtaining repeat prescriptions and the results of diagnostic tests. The number of prescriptions dispensed in England and Wales rose from 275.9 million in 1972 to 327 million in 1980 (Lawrence 1982). Three-quarters of the GHS informants who had consulted a doctor in the 14 days before interview had been given a prescription. (These figures exclude those who had obtained repeat prescriptions without talking to the doctor, as they were not counted as having consulted a GP.) In all age-groups, females were more likely than males to have been given a prescription (OPCS 1984). In the years 1962 to 1976, the number of prescribed items per patient increased by 46 per cent (Dajda 1980). Balint and others (1970) in a study of 1,000 patients from 10 general practices, carried out in 1967, found that 41 per cent of doctors' contacts resulted in a repeat prescription. Of the patients surveyed, 25.4 per cent were receiving repeat prescriptions; 17.8 per cent of these had been receiving the same drug for over six months. Forty-six per cent of long-term repeat prescriptions were in the over 71 age group. A total of 52 per cent of all the repeat prescription regimes were over a year old. Dunnell and Cartwright (1972), in a study of patients from 14 parliamentary constituencies all over Britain, found that the comparable proportion in their sample was 70 per cent, although only 33 per cent of consultations with doctors in the two weeks before their interview

had resulted in a repeat prescription. Dunnell and Cartwright comment that one quarter of these prescriptions had been obtained without seeing the doctor:

> '...the more frequently the same item had been prescribed the less likely the patient was to see the doctor'. (p 43)

(Balint's figure for indirect contacts was 18 per cent). The same study reports that doctors looking after smaller numbers of patients wrote more prescriptions per patient.

Freeman (1980), in a study conducted in Halifax, Nova Scotia, found that telephone prescription patients were perceived by doctors as more helpless and complaining and less cooperative in their own medical care than patients who saw the doctor. Telephone prescription patients tended to be older – and female. Returning to the NHS, Dajda (1980) claims that due to the expanded number of drugs now only available on prescription GPs' workload has increased and they now tend to let receptionists write an increasing number of scripts.* Cases exist, Dajda suggests, of 'receptionist-initiated' prescriptions. Patients will tell the receptionist their symptoms over the telephone and later collect a script without seeing the doctor. However, little documentation exists, as Dajda makes clear, concerning either patient/receptionist interaction over the telephone or receptionist/doctor interaction. Dajda presumes that the majority of prescriptions written by receptionists are repeat prescriptions. In a small survey, he found that 261 GPs wrote 900 items in a month and their receptionists 282, or 23.9 per cent.

On the subject of diagnostic tests, one study in the USA by Greenlick and others (1973) analysed 5,134 telephone calls to 'medical care personnel' in a prepaid group practice system. It was found that 47 per cent of calls concerned symptoms and 29 per cent concerned prescriptions, while 11 per cent dealt with the results of laboratory tests. A recent DHSS report (*Report of a Study of the Acute Hospital Sector,* DHSS 1981) provides evidence of the increased use of diagnostic tests in the UK. In the period 1973-1978, pathology requests rose by 25 per cent, and radiographic workload rates went up by 43 per cent for outpatients alone. Between 1969 and 1978, pathology examinations increased by 66 per cent to 60.6 million, while the proportion of requests from GPs rose from 11.4 per cent to 14.8 per cent. It could be assumed from these figures documenting technological change in medical practice that an increasing number of a GP's incoming calls from patients must concern the results of such tests (see Editorial, BMJ 1978). Some GPs, however, will prefer their patients to come into the surgery to obtain this information.

*It should be pointed out that this practice is against the advice given to doctors by the GMSC.

Requesting a home visit

The telephone may be related to home visiting in two ways. First, a telephone consultation may be used as a substitute for a home visit. Second, ease of access to a telephone may affect the propensity to ask for a home visit.

Cartwright and Anderson (1981) suggest that from the patient's point of view the general practitioner service has clearly deteriorated in one respect: the willingness of doctors to visit people in their own homes. The Consumers' Association report on GPs (1983) claims that the number of visits to patients' homes has decreased by approximately 60 per cent in the last 25 years. The GHS (OPCS 1984) records that in Britain in 1974, 20 per cent of consultations during the reference period took place in the home. By 1981, the figure had dropped to 14 per cent. Has this been compensated for by telephone consultation? The overall consultation rate has itself fallen over the years.

One study throws some light on the subject. Carey-Smith, Dreaper and Jenkins (1972) analysed the visits made by two members of a six-doctor partnership working from a health centre in a county town. Patients were asked why a home visit had been requested. The writers also attempted to assess the acceptability to patients of possible alternatives to home visiting. It was found that 30 per cent of patients visited had no telephone in the house, and the study goes on to suggest that the lack of a telephone was a significant factor in requests for home visits. A telephone conversation with the doctor, they claim, would have been 'an acceptable alternative' to 30 per cent of the patients lacking a telephone. The authors therefore conclude that in approximately one-quarter of the home visit requests they analysed, telephone advice from the doctor would have sufficed. Looking at home visits generally, *Social Trends No 14* (Ramprakash 1983) reports that the highest proportion of home consultations occurs in the age groups 0-4, and 75 and over.

Morrell, Gage and Robinson (1970) conducted a study of demand for medical care in a general practice in the London Borough of Lambeth. During a period of one year, when 3,455 patients consulted on 21,098 occasions, 8.7 per cent of consultations took place in the patient's home. This proportion increased according to the age of the patient. Over the age of 75, 29 per cent of consultations with males and 49 per cent with females took place in the home. However the proportion of consultations at which there was 'no confrontation' between patient and doctor was also found to increase with age: up to 24 per cent over the age of 75. Presumably, consultations took place either by telephone or through a third person.

While some rationalisation in home visiting appears to have taken place, the OPCS study conducted by Ritchie, Jacoby and Bone (1981) observed that receptionists were less likely to ask older people who had requested a home visit to come in to the surgery; only 13 per cent of those over 65 claimed that they were asked to do so. Just over one-third of Arber and Sawyer's respondents (1979) had been visited at home by the doctor, either for themselves or for someone else in the family, within the previous twelve months. Elderly people and children were the most likely to have received medical attention at home.

The Kensington, Chelsea and Westminster CHC's 1977 survey, *The Family Doctor in Central London*, found that 22 per cent of those registered with an NHS GP had asked for a home visit in the previous year. 'In most cases', we are informed, the doctor called. In this particular sample, the elderly were not the greatest users of this service; 'higher occupational classes' asked for home visits more often. (This CHC also claims that parking problems in London can often affect a doctor's ability to make home visits. They cite the case of one doctor who was fined while visiting a heart attack case, and who subsequently told his patients that he would visit only if the parking situation had been cleared with the police.)

This suggests that, other things being equal, telephone ownership may affect the propensity to ask for visits and that those without a telephone have a lower rate of requests.

A particular category of requests for a visit occurs out of hours. These may, or may not, be emergencies but they are particularly important for our purposes as they are almost always initiated by a telephone call. There has been more study of these calls, as they are of particular concern to doctors. Hence they are discussed in section 5.

SECTION 4

How do doctors see the telephone?

This section looks at doctors' attitudes to the telephone. Do they see it as an element of good practice management? As a filter against 'unnecessary' or 'trivial' patient demands? Or perhaps as a barrier which can effectively keep the irritating patient away from the surgery altogether? Some examples of different approaches are set out below.

The telephone in practice management

Reedy (1975), in a study of telephone communications in seven selected practices in the Aylesbury area, found that a wide variety of professional callers perceived the position of the GP as being central in the system of communications for care in the community.

In his discussion of the management of appointment systems, Greig (1984) contends that the essential qualities of a GP are accessibility and continuity. How, he asks, can accessibility be achieved? Good practice management is important. The main users of the health service, claims Greig, are elderly people and young women with small children. He asserts that doctors who complain that they have large numbers of night calls should be looked at with suspicion. This would be an indication that the doctor is not providing a good service during the day. Similarly, he suggests, a high visiting rate could reflect a poor service in the surgery.

The implication of this is that there is a class of doctors who see the telephone as a tool of practice management, and that patients' use of it can, and should, be controlled by the doctor.

The 'unnecessary' night call is clearly one of the aspects of general practice about which doctors hold strong feelings. Webster and his colleagues believe that night calls are invariably about urgent cases. They comment:

> 'The telephone bell demanding attention during the night represents one of the most unwelcome but often the most rewarding sides of a family doctor's life.' (Webster and others 1965).

In their study of four years of night calls in the Stockton-on-Tees area, only 7 per

cent were classed as 'unnecessary'. Riddell (1980), however, classified calls into 30.4 per cent necessary, 53 per cent unnecessary but reasonable, while 15 per cent were unnecessary and unreasonable. Having said this, he comments that there was little that could be done to bring this level of calls down because of the need to provide socio-medical counselling. In his practice in inner-city Glasgow, advice over the telephone was simply insufficient to ensure both the correct care for children and the smoothing down of parental fears. This may also be true of parts of inner London, particularly where patient turnover is high (see pages 13-14).

An editorial in the *British Medical Journal*, discussing the telephone in general practice (BMJ 1978), suggests that when patients know that the doctor will visit them, or that they will be seen in surgery, 'persuading and educating' patients to use the telephone may not be easy. Watts (1971) stresses the importance of the lines of communication between doctor and patient. He finds it hard to understand why GPs should hide behind ex-directory telephone numbers: a strange habit, he claims, which has become almost universal.* For Watts, 'occasionally' a telephone call can be as good as a home visit. This is as long as the patient is left satisfied that the problem has been adequately dealt with, and 'not with the unpleasant feeling that the doctor is just too idle to make a house call'. The importance of the 'listening ear' was confirmed by Crowe, Hurwood and Taylor (1976), who found that most patients making emergency calls to their semi-rural practice in Leicestershire (53 per cent) simply wanted the doctor's advice.

Cubitt and Tobias (1983), who describe out-of-hours calls as 'perhaps the most vexatious part of the GP's work in the United Kingdom', carried out a survey of two London practices in a health centre in an attempt to assess how doctors' attitudes and behaviour may affect patient demand. Practice A (formerly in a middle-class area) had a total of 1,156 out-of-hours calls in a six month period, of which 76 per cent resulted in a visit. During the same period, practice B (formerly in a run-down working-class area) had 788 calls, of which 50.6 per cent resulted in a visit. Cubitt and Tobias suggest that the doctors' decisions about whether or not to visit were not necessarily based on medical factors, but on an assessment of non-medical needs that might be met by visiting; also on the expectations of the patient. Practice A is described as 'caring, paternal and anxious' – more often classifying reported symptoms as illness. Practice B was 'disciplining, educative, un-anxious' – looking at symptoms as part of patient behaviour. Cubitt and

*If an ex-directory number is given to a family practitioner committee, it must be answered 24 hours a day.

Tobias hypothesise that these responses on the part of the doctors influenced demand and, ultimately, the dependency of the patient.

Greenlick and others (1973) found it impossible to predict with any consistency the outcome of patient telephone calls in an American practice, because of the wide divergence in doctors' responses. Some doctors simply discussed the patient's symptoms in 50 per cent of their calls; others ordered prescriptions in 50 per cent of calls. Still others requested 50 per cent of patients to visit the clinic. Greenlick's study found such individual differences in behaviour patterns within a given medical care system to be 'astounding'. The authors concluded that more research was needed in order to illuminate the general principles underlying doctors' behaviour.

Some research has since been carried out in North America on telephone use in day-to-day medical practice. One study of workload in a family practice in Canada (Westbury 1974) found that telephone practice accounted for about 20 per cent. However Freeman (1980), in his study of telephone prescribing, found that doctors were more likely to perceive patients who asked for prescriptions by telephone as 'problem patients'.

Caplan and others (1983), based in Baltimore USA, claim that the telephone is an integral part of paediatric practice because 'it improves physician availability, expedites communication, and may help to reduce the cost of medical care by obviating the need for a visit'. However, they concede that providing out-of-hours telephone care is not an enjoyable task. In a study of after-hours calls, they found that 23 per cent of calls in the evening provoked irritation in the doctor. This percentage rose to 54 per cent for calls at midnight or later. The irritation was compounded by 'the physician's impression' that one-third of the calls could have been more appropriately made during regular office hours. The writers suggest that non-medical personnel could be trained to provide high-quality telephone counselling to patients, and that this would partially relieve doctors of an 'undesirable task'. This echoes a study done by Katz, Pozen and Mushlin (1978), who found that ancillary staff (with their clinical responsibilities clearly defined) solved 92 per cent of problems, and satisfied 90 per cent of patients.

Caplan and colleagues conclude that in designing a primary-care service for a low-income inner-city population, telephone availability after hours should be considered as an important element of comprehensive care. The communications systems available are also important. In the UK, after-hours telephone availability is increasingly provided by answering or deputising services, particularly in the

cities (Cartwright and Anderson 1981; London Health Planning Consortium 1981). Rankin (1971) in his description of the services provided by Air Call Limited in Edinburgh, argues that these services can transform a doctor's life, and that the patient can also benefit from what can be a second opinion.

The telephone as a barrier

Cartwright and Anderson (1981) found it cause for concern that a quarter of the GPs in their survey regarded at least half of their consultations to be 'trivial', 'inappropriate' or 'unnecessary'. It is to be hoped, therefore, that few doctors share the attitudes expressed by Russell (1966), who believed that the doctor's life is 'legal slavery'. When a new telephone system was installed in his surgery in Hayes, it turned out to be 'far too good'. Patients could get instant service, day or night. Fearing that the abolition of prescription charges would cause him to be 'swamped in a sea of trivia', Russell moved eight miles away from his surgery in order to be safe from the casual caller, leaving his original line to be manned by a receptionist.

McAlister and Tong (1982) selected 162 family doctors from the telephone directory in Toronto, and attempted to reach them directly by telephone. They found that fewer than half the doctors came to the telephone immediately, or returned the first message within a week. A total of 950 calls were placed before they could speak to each of 161 doctors person-to-person; an average of five calls per doctor. One could not be contacted at all. McAlister and Tong concluded that doctors are very well-protected against the receipt of unsolicited telephone calls – even those from their professional colleagues.

Doctors' wives and secretaries can frequently be over-protective (Watts 1971). Receptionists, as discussed earlier, can be a formidable barrier. Watts cited the case of one patient who was prevented from seeing her doctor for a year by the intervention of one particular receptionist, who insisted on taking details over the telephone and then told her to call for a prescription. Apart from emergency cases, which need to be seen promptly, and cases that are clearly not urgent, Watts recommended that all patients in general practice should be seen 'by some doctor in the firm' within 24 hours.

Many London practices, where doctors do not live at their surgeries, make use of answering machines. Grabinar (1982) writing about his London practice of 8,500, describes the telephone as the principal link between doctor and patient. Out of hours, he finds the answering machine better than a transfer call operator:

'Patients hearing the recorded message must decide if their problem is urgent before re-dialling to the duty doctor. This sifts out a number of trivial calls. After 11 o'clock at night, I reckon that about half the calls are urgent enough to require a home visit.'

Comment

There appear to be different types of attitude to the telephone in general practice. Some doctors see it as a tool to be used positively in providing a more effective service to patients. In this category, there are those who see it as a way of providing information, advice and reassurance and there are those who see it primarily as providing access in emergencies. The telephone call is invariably a prelude to a visit. The doctor's task is therefore to educate patients in the appropriate use of the telephone. Another category of doctor sees the telephone more negatively. They may use the telephone to put a barrier between themselves and the patient. Another person – or a machine – is used to filter the calls. This may go along with the view that many calls are 'unnecessary'.

In our view there is a case for carrying out more systematic research on how doctors actually use the telephone in their day-to-day practice, on what systems they use and on what their attitudes are. One area where some research has been done in the UK is in relation to the volume and incidence of out-of-hours calls. This is discussed in the next section.

SECTION 5

The use of the telephone in out-of-hours calls

It is clear that the use of a telephone is particularly important if patients need to gain access to doctors 'out of hours'. In an emergency or what the patient or family perceive as one, the telephone will be used. If people do not have their own telephone, they will use a neighbour's or a public call box. Crowe, Hurwood and Taylor (1976) indicated that 97 per cent of out-of-hours calls in their study came in by telephone.

The term 'out of hours' presents problems of definition in the context of general practice. It can mean either outside surgery hours or outside office hours. Surgery hours and the days of the week on which surgeries are open depend upon each individual practitioner, but they must be agreed by the family practitioner committee (FPC). The regulations state that in order to receive a full basic practice allowance GPs should provide a basic 20 hours a week of service, within set surgery hours and by visiting. In order to get a reasonable spread through the week, and to suit the needs of a particular small locality, times must be agreed with the FPC. There is no information on how FPCs interpret this function. Surgery hours are printed in the Medical List. This provides a source of information on GPs practising within a given FPC area.

A major problem in analysing out-of-hours calls is the variation in how GPs' practices are organised. A single-handed GP may only have limited surgery hours and outside these times may only be obtainable by telephone. In a large group practice or health centre there may be staff at the practice premises all day from 8am to 7pm. A recent *Which* report on access to GPs comments:

> 'In general, the more partners in a practice the more likely a [telephone] caller was to make direct contact.' (Consumers' Association 1983).

Crowe, Hurwood and Taylor (1976) describe their health centre hours as follows:

> 'The health centre was open from 0830 to 1800 on weekdays and from 0830 to 1100 on Saturdays. All periods when the health centre was closed, including bank holidays, were defined as out of hours.'

Studies of out-of-hours cover have had to ignore these differences and have defined out of hours as evenings, weekends (after noon on Saturday) and public

holidays. They tend to have looked at various factors such as the volume of calls, variations in volume of calls between practices, the relationship between calls and visits, the times of calls, the reasons for calls, and how doctors have dealt with them.

The most usual way of examining these factors has been to divide 'out of hours' into a number of time periods. The dominant time divisions have been the following: 1900 to 2300 hours as 'evening', 2300 to 0700 hours as 'night' (a night fee is payable for calls after 2300 hours). Weekends are taken as 1300 hours on Saturday to 0700 hours on Monday. Calls, it must be noted, usually mean incoming calls. Some studies have recorded and analysed visits (calls on patients) only. We try to make it clear which is being discussed, although there is some inconsistency in the literature.

Volume of calls

A number of GPs have analysed the incidence of out-of-hours calls in their own practices. There is some consistency in their findings concerning the times of heaviest demand. Crowe, Hurwood and Taylor (1976), in an analysis of calls between April 1973 and March 1974, found that most (76 per cent) came in the evening between 1900 and 2300 hours. In other words, three out of every four calls came before 2300 hours. Stevenson (1982), in his practice in Edinburgh, found that 80 per cent of calls were received before 2300 hours and 20 per cent after. Riddell (1980), in Glasgow, found 75 per cent before and 25 per cent after; Williams, Dixon and Knowelden (1973) in a very much larger scale study which collected data on the deputising services covering about 92 per cent of GPs in Sheffield, found a similar pattern.

In terms of weekend calls, Dixon and Williams (1977) studied the operation of 18 deputising services. They found that 55 per cent of first contact calls were made during the day on Saturday and Sunday, the time of heaviest demand being Sunday morning. Crowe, Hurwood and Taylor (1976) found that there were 50 per cent more calls on Sunday than on Saturday. Demand for out-of-hours calls was particularly heavy on Sunday morning.

Rate of calls

Attempts have also been made to quantify the rate of out-of-hours calls per 1,000 patients. However, with the possible exception of night calls, these data are unsatisfactory because of the large number of factors affecting the call rate. For example, both the type of practice population and the structure and

Table 4 Analysis of out-of-hours visits and a comparison with other series

	No of patients	*Total visits*		*Visits 2300-0700 hours*	
		No	*Rate per 1,000 per year*	*No*	*Rate per 1,000 per year*
Housing estate	10,048	1077	107.2	211	21.0
Inner urban	9,679	567	58.6	121	12.5
Whole practice	19,727	1644	83.3	332	16.8
Other series					
Lockstone (1976)	15,374	-	-	163	10.6
Morton (1979)	6,020	-	-	96	15.9
Crowe, Hurwood and Taylor (1976)	9,500	585	61.5	-	7.8
Smail, Lloyd and Mann (1981)	-	-	147.0	-	-

Source: Riddell J A (1980) British Medical Journal, 280, 21 June, p 1519.

philosophy of the practice have been found to affect the call rate. Table 4 shows the variation in visiting rates per 1,000 population per year which have been presented by different studies. Smail, Lloyd and Mann (1981) found a rate of 147 per 1,000 per year and Riddell, in his inner urban practice, a rate of 58.6. Gravelle (1980) uses another method to study the incidence of calls as it might affect the call-out rate of an average GP. He estimates that calls would be at the rate of one or two per evening between 1800 and 2300 hours, two per month between 2300 and 0700 hours and one or two a day between 0700 and 1900 hours at the weekend. This takes no account of the number of patients involved; nor does it give any indication of the range of variation. A recent DHSS circular, allegedly based on returns from FPCs, notes a variation of visiting rates out of hours of between 6 and 30 per 1,000 patients per month (HC(FP)(84)2).

Night calls

There is more information on out-of-hours calls at night than at other times. The term 'night calls' usually refers to visits in the period from 2300 until 0700 hours. It is also usually measured by the rate of calls per 1,000 patients per year, and some effort has been put into trying to establish why the rate of calls varies. Webster and others (1965) in a study of a practice in Stockton-on-Tees over a period of four years from January 1960 to December 1963 found an average rate of 10.7 calls per 1,000 per year. Brotherston and others (1959) showed a rate of 17 calls per 1,000 patients per year, and Stevenson (1964), writing about a practice in Ayrshire, found a rate of 33 per 1,000 patients. Crowe, Hurwood and Taylor (1976) reported a lower rate of 7.8. Riddell (1980) recorded out-of-hours visits in a deprived area of Glasgow. The rate here was 12.5 per 1,000 per year. Cubitt and Tobias (1983), in a study of two practices in a health centre in London, concluded from their findings over four weeks of recording calls in June and July 1978 that the rate of night calls was 18 per 1,000. Hobday (1984), looking at the claims for night visit fees for the whole of the Maidstone Health District in the first three months of 1983, found the very low visit rate of 6.2 per 1,000 patients per year.

Buxton, Klein and Sayers (1977) used a different method to estimate the volume of out-of-hours work by analysing the claims for night visit fees available from the DHSS. Their study has the advantage of covering the country as a whole. Having established that there was little variation over two or three years in the early 1970s, they took the figures for 1973-4 and looked at the data for night claims for different executive council areas. The variation was considerable. The national average was 8.9 per 1,000, but Tynemouth had a rate of 17 (92 per cent above the average) while Northampton at 3.8 was 57 per cent below.

These authors suggest that the rate of night visiting has been rising. The implied visiting rate per principal in practice has risen from 10.7 in 1967-8 to 24.0 in 1975-6, while the rate per 1,000 patients went up from 4.3 to 10.1 in the same period. They are careful to point out that the interpretation of this trend is not straightforward. The rise could be due to an increase in the propensity to claim a night visit fee, or to a change in the behaviour of doctors so that they are in fact visiting more. The claim rate, and indeed the visiting rate, may have risen as a consequence of the increase in the level of fees paid to doctors. The fee was £1 in 1967; £4.60 in 1977. It is currently £14.95.

The variations in visiting rates in different parts of the country suggest that there are structural factors at work. Buxton, Klein and Sayers attempt to push the

analysis further, to distinguish between 'supply' and 'demand' factors. Supply factors are aspects of the doctor's practice which may affect visiting rates at night: list size; single-handed practice; partnerships of four or more; the age of GPs in the practice; the authorised use of a deputising service. Demand factors are the socio-demographic characteristics of the population, such as birth rates and class composition. The study carries out a step-by-step multiple regression analysis of the variables on the supply and the demand side. The factor most strongly correlated on the demand side was the proportion of the population in social class V (which was in itself highly correlated with some of the other variables). On the supply side, the strongest correlation was with the authorised use of deputising services. Sheldon and Harris (1984), confirm this finding. Their study, using night claim forms from Nottinghamshire FPC, shows that the use of deputising services was associated with a small rise in the night visit rate. This issue is discussed further below.

Demand factors

There is considerable support for the view that socio-demographic factors affect the demand for out-of-hours calls. Practices with greater proportions of social class V patients will have a potentially higher demand for out-of-hours cover. Riddell, for example, compared two areas within a large urban practice; an 'inner urban central' area and a 'large post-war council housing estate' where there was severe social deprivation. The unemployment rate was high: 30 per cent. There was double the national rate of one-parent families. About twice as many calls were received from the housing estate, which had a night visiting rate of 21 per 1,000 per year. The author also attributes the differential visiting rate to the large numbers of infants and children and the numbers of lone parents on the estate.

Families with children make the largest demand on out-of-hours services of any single group. Crowe's analysis of calls found that 38.2 per cent concerned children, while Stevenson (1982) estimated that 26 per cent of his calls were about children under five (ten per cent of his practice population). Air Call, in an analysis of calls received by their deputising services, estimated that some 15 to 20 per cent of calls concerned children under the age of 16. Of these, they comment that a considerable proportion arose from parental anxiety. Of the calls to children, only 10 to 15 per cent were considered 'real emergencies'. Two other sources also suggest that families with children are heavy users of out-of-hours services. Naidoo (1982), in an analysis of a single-handed practice and out-of-hours calls which went to a deputising service, found that the most frequent users were young mothers with children under five. Webster and colleagues (1965)

found that maternity cases accounted for the greatest number of calls, at 26 per cent.

Patients' satisfaction with out-of-hours cover

As we have already made clear there are few studies which record the patient's perspective. The studies which exist reflect patient's views of both their own doctors and of the deputising service.

Sawyer and Arber (1982) reported high levels of satisfaction (80 per cent) with the out-of-hours service received by the respondents to their survey. However, this overall satisfaction also covered areas of serious dissatisfaction. Two factors strongly influenced satisfaction: which doctor it was who came; and the length of time taken to answer the call. The most satisfied patients were those who had been visited by their own doctor or by another in their own practice: 94 per cent and 91 per cent respectively. In both these cases over three-quarters of the calls had been answered within the hour. Where deputising services were used, the level of satisfaction was lower. Only 58 per cent were satisfied. There were a number of reasons for dissatisfaction. One was the greater length of time that it had taken for the deputising service to arrive. Patients also felt that it was important to have a doctor whom they knew and trusted for out-of-hours care; someone who knew their medical history and had access to their medical records. They felt that deputising doctors had a more careless attitude and were often tired. There was particular dissatisfaction with deputising doctors who did not have a good command of the English language. Respondents also mentioned that there was greater difficulty in getting in touch with the deputising service. It was likely to mean several telephone calls. This presented particular problems for those without telephones of their own.

Prudhoe (1984), in a letter to the BMJ, comments on a study she has been undertaking in a practice in the North East on satisfaction with out-of-hours care. Out-of hours calls were mainly covered by three of the four partners and two trainees (64 per cent of the visits). A weekend rota was shared with a neighbouring practice of three partners (25 per cent of the visits). The BMA Air Call deputising service was used for 11 per cent of the visits. Satisfaction was highest for the patient's usual doctor, less for any other local doctor, and lowest for the deputising doctor. As a whole, the levels of satisfaction were high.

In this context it is interesting to note that Hicks, in his review of primary care, claims that it is of little value to ask patients directly which type of care they

prefer or whether they are satisfied with their present form of service. 'All studies show that, when questioned directly, the vast majority of people say they are satisfied with the form of care they are receiving. Few are able to envisage advantages and disadvantages of other systems.' (Hicks 1976).

SECTION 6

Systems for handling out-of-hours calls

In this section we outline the main systems in operation for transferring calls. They fall into three basic types: those which rely on technological means to transfer calls from one number to another; those which rely on taped messages; and those which use message-handling services for the transfer of instructions. Deputising services are discussed here under a separate heading and in relation to London in section 7.

1 Systems which use technological means to transfer calls

1.1 Operator-controlled transfer (OCT)

With this system, the doctor informs the exchange that a surgery number is on transfer. The patient calls the practice number. The number is then routed to the exchange, and goes to the exchange suite. The operator asks which number has been dialled; the patient gives the number and is told that the number has been re-routed to a new one.

Until the end of the 1950s, no fee was charged. Charges per call were then introduced, and rapidly increased. The increasing charges led to the development of alternative methods of transferring and answering calls, including the development of commercial message-handling and answering services.

The disadvantage of these OCTs, as they are sometimes called, is the delay in the operator answering. The operator may not answer for several minutes because of the volume of calls at the exchange. One GP commented to us that he no longer used this system, because delays could be as long as twelve minutes. On bank holidays in particular there is danger of overloading. For patients anxious to make contact with the doctor, and who probably do not understand the system, this could be intolerable. They might well conclude that the doctor was unobtainable.

1.2 Subscriber controlled transfer (SCT)

With this type of system there is a switch in the surgery and calls can be transferred automatically by throwing the switch to one other number. This is controlled from the surgery without going through the exchange. It is relatively cheap, and many practices changed over when the GPO raised the cost of

operator calls (*Money Pulse* 1981). The advantage of SCT is that the patient does not have to dial twice to reach the doctor. However, these automatic transfers are only possible within one exchange, or between certain nearby exchanges. It is possible to use SCT to transfer calls to and from eight to ten other numbers through the use of particular codes. The caller is unaware that the number is not being answered in the surgery.

The disadvantage of systems which involve switching through is that they rely on the doctor, or someone acting on his/her behalf, remembering to switch to the correct position to transfer the call.

All SCT numbers have an associated by-pass number so that the operator or answering service can over-ride the line and inform the doctor that s/he had not switched through. However in case of difficulty the patient would have to understand the system sufficiently to telephone the operator.

1.3 Telephone call diverters or customer call diverters (CCD)

Call diverters *can* provide an alternative in areas where SCT cannot be used because doctors live outside their surgery area. With CCD a call can be diverted from one number, say a surgery number, to another number through a diverter, to further pre-set numbers. This takes place after a number of rings on the first number have gone unanswered. The call will then go into the diverter, and the second number is dialled automatically. A number of calls may come in at the same time and have to be stacked. An average delay can be two minutes. Meanwhile the caller may not understand what is happening. However it is possible for diverters to have a message to inform the caller about a delay, as there is a gap between the initial ring and the diversion. Callers might otherwise give up, thinking that they are not going to get a reply. From the callers point of view, the advantage of CCD is that only one call needs to be made. There are also advantages from the doctor's point of view. It is possible to re-route calls to any other chosen alternative number, providing that the number can be dialled (although there may be a limit to the numbers which a machine can technically memorise). CCD relies on technology rather than on operator intervention.

BT has been very slow in getting call diverters on to the market. Non BT approved diverters have met the demand but their quality is said to vary, particularly in relation to sound transmission. Diverters could, and in the future will, be installed in all BT exchanges. They are being piloted in London (Belgravia exchange) but there have been technical problems.

1.4 T'ed lines

A further technical facility is the installation of a T'ed line. This involves two telephones with two lines, which ring simultaneously in two different places and can be answered in either. Problems can arise when they are answered in both places, causing confusion for the caller. The two lines can be on a private circuit between, for example, a doctor's home and surgery, or an answering service.

2 Telephone answering machines

2.1 The simplest and cheapest method for dealing with incoming calls is to have an answering machine connected to the telephone. There are a number of different ways in which answering machines are used. The simplest type are those with a recorded message. This ideally should be short, and give a simple message with another number where the doctor can be contacted. The same message should be repeated a number of times.

Answering machines have been found to have a number of disadvantages for the caller. Some messages are over-complicated, not clear enough or not repeated often enough. The caller will need a paper and pencil and, calling from a call-box, more change may be needed. Some non BT-approved answering machines may not adjust to answering a call from a call-box and the message can be cut off prematurely. BT-approved answering machines must conform to certain standards. They will wait, for example, for pips to go in a call-box before beginning the recorded message.

Answering machines may direct the caller to a variety of other numbers: the doctor's own home number, or that of a partner or assistant. Alternatively, the number may be that of an answering service or deputising service. With an answering machine at least one other number will have to be telephoned; perhaps two or more.

2.2 A second and more sophisticated type of answering machine may also ask for a message to be left. This has been discouraged by the BMA for a number of reasons. A caller in a state of distress or panic may leave an incomprehensible or incomplete message. They may also fail to leave an address, a name or a telephone number. The machine may be programmed to give insufficient time to get down the whole message. The caller cannot know when the message will be picked up or what the doctor's response will be.

2.3 A third facility which may be available on an answering machine is that

when a message is left, it activates a bleeper. The bleeper signals that a message has been left. The doctor can then go and ring the machine and receive the message.

It has been estimated that there are about 100 models of answering machine on the market. While this widens choice, it must increase doctors' difficulties in assessing their relative merits.

2.4 There are advantages for doctors in using answering machines.
a. They are fairly inexpensive. Answer-only machines can cost less than £100. More sophisticated machines cost between £200 and £300.
b. Messages can be changed easily and frequently.
c. Messages can be left by receptionists.
d. Incoming calls can be listened to, and the doctor can decide whether or not to intercept and take the call directly. This gives flexibility in dealing with urgent and non-urgent calls.

Telephone answering machines have their uses, but there are problems when they are used as the main form of cover for an out-of-hours service.
a. The onus is put on the patient/caller to give a clear account of needs and symptoms.
b. There is no human voice to elicit information.
c. There is considerable variability in the quality of messages left by doctors. Anecdotal evidence suggests that patients can have difficulty in understanding these messages. Accents, for example, may be exaggerated by answering machines. Numbers can very easily be misinterpreted by the anxious caller. Messages may be left unchanged despite alterations in the organisation of the practice.
d. It may be difficult for the doctor to assess priorities, as a wide variety of messages may be left, from the trivial to the urgent.
e. The caller does not know what action, if any, to expect. Most patients probably do not know how answering machines are used in the practice with which they are registered. There is no code governing the use of answering machines. GPs may be unaware of the level of adequacy of messages in their own practices unless patients complain, or there is a service case.

3 Answering services

Answering services are the third major way of transferring incoming calls to the doctor on duty. Calls may be transferred to the answering service by any of the methods referred to above. What constitutes an answering service raises problems

of definition, as strictly speaking anyone who answers the telephone, apart from the doctor (or deputy), is acting in the role of an answering service.

a. There are commercial answering services which provide a product available for any practitioner who wishes to subscribe.

b. There are answering services which have been organised by a particular practice, either in practice hours or outside them. This involves employing someone to answer the phone and handle messages.

c. An informal unpaid answering service may be provided by a practitioner's family.

The pattern of use of these different methods, and the way in which this has changed over time, remains unknown.

3.1 Commercial answering services

Answering services are often confused with deputising services. The two operate separately although deputising services also usually have an answering service. Answering services are concerned with taking and handling messages; deputising services with providing a deputy doctor. Answering services are likely to vary considerably in their scope, mode of operation, level of competence and the sophistication of their technical equipment. Little is generally known about the efficiency and effectiveness of particular answering services. Their charges to doctors vary, but cost may or may not be related to the quality of service.

At one end of the spectrum there are the large, well-equipped answering organisations such as the Cambridge Answering Service Limited. This was set up by a Cambridge GP in the 1960s and at first covered only radio-paging. It later extended to a telephone answering service. Seven SRN operators handle 110,000 calls per year, working from Addenbrookes Hospital. Almost every GP in Cambridge is covered (*The Doctor* 1978). It has transmitters which allow the service to cover some 2,000 square miles, and landlines were laid by the GPO to Addenbrookes. Telephone calls can be put through to the operators at off-duty periods. The doctor's telephone can be linked to the service by subscriber transfer or operator transfer. An answering machine can also be geared to transfer calls to the service operators, so that patients can speak directly to the operators. Operators can, if necessary, get in touch with a patient's doctor or a substitute. Instructions are kept by the service on how to reach doctors at particular numbers and there is a radio-paging service through car radio. If the doctor is not in the car, communication can take place through a bleep. The bleep means that the doctor should telephone back to the service at the earliest opportunity – a method which the service organisers suggest has not 'in practice, caused serious delays'. The average call-back time is 2.5 minutes. Pre-arranged codes may also be

dialled into radio-pagers to denote urgent, semi-urgent and non-urgent calls.

Telephone Answering and Message Relay Service (TAMERS) is another example of a sophisticated and highly developed answering system. It operates in South Wales and is based on the ambulance service. The South Glamorgan Ambulance Control operates a two-way VHF radio communications system for all the county's ambulance services and for the community nurses.

Smail, Lloyd and Mann (1981) reported on an experiment to link the ambulance service to doctors in three practices in Cardiff who shared a common night duty rota, by using spare equipment owned by the Health Authority. The doctor on call had a two-way radio in his car and also carried a long-range single-tone pager activated by a separate radio circuit. Both pager and radio could be used at any time of the day or night. They were controlled from the ambulance control base station, which provided the answering and message handling service. When the surgeries were closed, patients were asked to ring a number that connected them with the ambulance control officers, who answered: 'Doctor's answering service, can I help you?'. The patient's call details were passed to the doctor by telephone, or the doctor was paged and he or she answered by telephone or two-way radio. The doctor always acknowledged receiving the call. During the three months' trial, doctors acknowledged 94 per cent of the calls within 10 minutes. A questionnaire sent to users subsequently reported a high degree of patient satisfaction: 94 per cent found the operator helpful or very helpful. The system had the further advantage of linking the GP to other members of the primary health care team.

One of the biggest of the commercial answering services is that run by Air Call in conjunction with the BMA. This provides deputising and telephone answering for some 8,300 GPs in the UK from 28 operational centres. In 1983, 3.9 million calls were handled and 668,000 deputising calls were completed. This organisation also offers a comprehensive range of facilities. The relationship between Air Call and the BMA, which lays down particular professional and ethical standards, is discussed elsewhere under the heading of deputising services.

3.2 Practice-based answering services

Receptionists are usually employed by GPs to answer telephones and to relay messages. Receptionists may be there in surgery hours, or for an eight hour day or longer. Someone may also be paid to answer a telephone at practice premises out of hours. Some practices have caretakers who carry out telephone answering functions as well as keeping the premises clean. People who perform an individual

'answering service' may be instructed in different ways by doctors about screening calls.

3.3 Informal answering systems

Informal arrangements may be made within the doctor's household about how to deal with out-of-hours calls. Wives have traditionally been used as 'unpaid' help, though on a tax deductible basis. Doctors may be 'on call', but not at home. Again, there are likely to be a variety of different ways of getting in touch with them.

4 Comment

The different answering systems described cost varying amounts of money to buy. The expense falls on doctors who, as independent contractors, can choose which system to adopt. Expenditure on communications systems is allowed as a practice expense.

The systems described are not mutually exclusive. They may be used by particular doctors in different combinations at different times.

All the systems have advantages and disadvantages, for the patient and for the doctor. Patients will want a system which enables them to contact the doctor by telephone with the minimum of fuss and in a reasonably short time. The doctor will want a system which is trouble-free, and which enables him/her to deal with emergencies. All the systems described above are subject to error, both human and technical. For patients, failure on either count is often compounded by the fact that they often do not know what system is being used.

On balance, answering machines would appear to be the least adequate of the methods. They depend much more on both patient and doctor being adept at handling the system. Call transfer systems are subject to technical limitations, but the use of call diverters should improve the situation.

Answering services are probably the most satisfactory form of message-handling, as callers can negotiate alternative courses of action with a human voice. However, they are known to be variable in their quality and efficiency. The GMSC Answering Services Working Party has now developed a code of practice for the use of answering services (GMSC 1984).

This code of practice, according to members of the working party, will need to establish a realistic level of operation. For example, it will need to set criteria for

the number of lines needed in relation to the volume of work; for the number of operators needed and their training; and possibly for the monitoring of GPs' methods of transfer to the answering service. The proposed code of practice could not be mandatory on the commercial answering services, but would be a way of informing doctors and of influencing their choice of service. Answering services which adopted the code would be BMA approved. The GMSC also envisages a set of guidelines which could be applied to the use of answering machines.

Although a code of practice will help to improve standards of answering services through commercial pressure, this will be a fairly loose form of control. It can do nothing to ensure that technical equipment and the telecommunications systems as a whole conform to certain standards. The privatisation of BT is likely to increase the diversity of systems and products. Telecommunications for the use of GPs form only a small, and comparatively specialised, corner of the market.

Klein (1982) argues that if governments follow the model of increasing the private market element in health and welfare, rather than the public service model, then governments must be responsible for regulation in order to protect the consumer. In the case of communications technology, the consumer is both doctor and patient. The British Standards Authority and the DHSS will need to ensure that standards are maintained in systems and products concerned with maintaining contact between doctor and patient.

A third possible source for the greater regulation of answering systems are the FPCs. These bodies, as already pointed out, hold GPs' contracts. GPs should be encouraged to inform their patients about their out-of-hours arrangements by notices in the surgery and by leaflets. At present, there is no systematic information available on which systems GPs use, on how adequate they are, or as to whether patients are informed. It could be argued that FPCs should play a larger role in this area, similar to the role they play with regard to deputising services.

5 Deputising services

Doctors may use a deputising service as a method of providing out-of-hours cover. Patients calling a doctor out of hours by telephone may find themselves being referred to a deputising service, and for this reason we are including a section on deputising services in this report. The telephone systems used by deputising services are as important as those used by GPs. Under their contract, GPs remain responsible for the communications systems used by the deputising service and for the actions of the deputy doctor.

Deputising services have been used by NHS GPs since 1956, and about 50 services are now operating, mainly in urban areas. Twenty of these services are run by Air Call, a public limited company in conjunction with the BMA. A BMA Central Advisory Committee on deputising services has laid down a code of practice, in relation to the professional and ethical aspects of the deputising services. In each area a local medical advisory committee was established to supervise the service, to interview and approve doctors who undertake sessional work, and to monitor professional standards. The BMA receives from Air Call 1.5 per cent of the turnover on these deputising services. The funds are used to administer the central and local advisory committees, to pay honoraria and to fund appropriate research; any sums remaining being paid to the BMA.

It could be argued that the existence of a code of practice helps to raise standards of commercial deputising generally. All deputising services are licensed by the FPC through a mechanism which is described below.

The numbers of GPs subscribing to deputising services has increased steadily. In 1972, Williams and Knowelden (1974) found that 28 per cent of all GPs had consent to use deputising services. By 1983, 45 per cent of all GPs in England had consent to use them. Table 5, taken from Hansard, gives details of the numbers of doctors with consent to use deputising services on 18 October 1983.

5.1 Levels of use

With the exception of North Western Region, the regions with the highest percentage of consent to use deputising services are the North East and North West Thames Regions. In some areas within these regions the use is particularly high. The Acheson committee (London Health Planning Consortium 1981) found that levels of consent were exceptionally high in inner London: 98 per cent in City and East London. Williams, Dixon and Knowelden (1973), in a study of deputising services in 1970, estimated that 74 per cent of GPs in Sheffield and 78 per cent of GPs in Nottingham subscribed to deputising services.

As the number of deputising services has grown, so an increasing number of doctors has chosen to become subscribers to them. This does not necessarily mean that GPs are using the services more, but that they have the option to do so. The 1984 Mori Poll (MORI 1984) suggests that one-third of GPs use commercial deputising services some of the time, although only 13 per cent of GPs used *only* deputising services for their out-of-hours cover. This was more likely to occur in one or two person practices and among older GPs (who in any case were more likely to work in this kind of practice). Williams and Knowelden (1974)

Table 5 GPs in England with consent to use deputising services

Regional health authority	*Number of unrestricted principals*	*Number with consent to use deputising services*	*Number with consent as a percentage of all unrestricted principals*
Northern	1,495	741	49.6
Yorkshire	1,763	836	47.4
Trent	2,166	971	44.8
East Anglia	945	-	-
North West Thames	1,888	1,288	65.0
North East Thames	1,853	1,247	67.3
South East Thames	1,821	732	40.2
South West Thames	1,445	502	34.7
Wessex	1,390	332	23.9
Oxford	1,159	84	7.3
South Western	1,718	229	13.3
West Midlands	2,516	1,508	59.9
Mersey	1,191	650	54.6
North Western	1,909	1,422	74.5
England	23,259	10,542	45.1

Source: Clarke K (1983). Doctors' deputising services. Written answer. House of Commons official report (Hansard), November 23, 49, cols 192-4.

found that 90 per cent of two-handed or single-handed practices used deputising services in Nottingham and Sheffield. The growth of deputising services undoubtedly owes something to the ways in which GPs' perceptions of their role has changed, as well as to the way in which the content of general practice has altered, with more emphasis being placed on the development of clinics held during the day at surgery premises.

GPs are independent contractors, responsible for providing their patients with 24 hour cover, 365 days a year. Out-of-hours cover was a major item of discussion on the 1965 Family Doctor Charter. The outcome was the recognition of this responsibility by a split contract: one covering day time work and the other night time. Each part was priced separately by the review body. GPs were able to opt

out of the supplementary night contract with the approval of the FPC. Few GPs have taken up this option. Instead, doctors have found it more convenient to organise rotas, or to subscribe to deputising services where these are available. These arrangements are a long-established fact of medical practice in the NHS. Indeed, in 1973 a working party on general medical services, chaired by Sir George Godber (then Chief Medical Officer), reported:

> '...the pattern of life has altered significantly and few would demand that their doctor should always be available. Indeed no such right exists . . . any doctor in general practice, or indeed any other form of clinical practice, must have some deputising arrangement. The problem is not whether such arrangements should exist, but how they can be organised in the way least harmful to continuity of care.' (DHSS 1974)

5.2 Conditions governing the operation of deputising services

Under the NHS (General and Medical Services) Regulations of 1974, FPCs have the power to withhold permission for deputising services to operate and the power to lay down conditions governing the use of services by GPs. Since 1978, this monitoring function has been carried out by professional advisory committees (PACs) composed of members of the medical profession from local areas. (Where BMA local medical advisory committees existed these were part of the PAC machinery.) These committees have not proved to be sufficiently visible, or indeed accountable, to enable them to deal with criticisms of inadequate supervision of deputising services. Indeed, although the FPC was the body ultimately accountable for giving deputising services permission to operate within its area, in many cases too little information was forthcoming from the PACs to enable FPCs to make an informed judgment.

In January 1984 the current Minister of Health, Kenneth Clarke, issued a draft circular which outlined proposals for tighter control of deputising services by the appointment of a sub-committee of the FPC instead of the professionally-run PACs. This caused a storm of protest from the profession. Subsequently a modified circular was issued in May 1984: HC(FP)(84)2. The main aim of the new circular was to ensure that out-of-hours care was of a similar standard to that provided 'in hours'.

The expectation is that the FPC will monitor the quality of deputising services and establish rules for the use of these services by doctors. Each FPC will have to set up a sub-committee to monitor the quality and operation of deputising services. This committee will give permission to GPs to use the deputising services. As at present, permission to use the services will not be granted for every night and every weekend.

It has been, and will remain, very difficult to regulate the use of deputising services in practice as so little is known about the patterns of use. There is considerable variation among FPCs in the conditions and constraints they impose on the deputising services and on GPs' use of them. Some limit use to 60 calls per 1,000 patients per year; some to 20 calls per month per doctor; some to one night per month; some to 6 to 8 times per month. Even if these limitations are imposed, there are difficulties in developing effective ways of establishing whether rules are being adhered to. The original circular of 1984, for example, suggested that doctors' deputising arrangements should be monitored by the FPC through a system of random checks. This suggestion met with derision from the profession, who immediately conjured up the spectre of a 'night police' of FPC administrators staying at their offices in order to make random calls to doctors' surgeries. The suggestion was dropped in the subsequent circular, and the proposed sub-committees will now have to devise their own monitoring procedures.

At present, therefore, GPs are at liberty to make their own arrangements to use deputising services within very broad parameters which may vary from FPC to FPC.

5.3 Out-of-hours calls and the use of deputising services in general practice

Cartwright and Anderson (1981) in their national survey, *General Practice Revisited*, suggest that there has been a shift towards rotas: arrangements which draw on deputising services *some* of the time. Their finding was that 44 per cent of all GPs were using deputising systems occasionally or regularly. Fifty-six per cent in single-handed practice did so, and 31 per cent of those in partnerships of five or more. The MORI survey (1984) found that 33 per cent of GPs contacted used a deputising service some of the time. Older GPs, who in any case tend to be more likely to work in smaller practices, were more likely to use deputising services. Half of GPs over 60 used deputising services, compared to 22 per cent of GPs up to the age of 39. The MORI survey suggests that deputising services are more likely to be used in urban areas.

The MORI survey also indicated that nearly 20 per cent of GPs worked more than 90 hours a week, while 61 per cent worked over 60 hours a week. It found, not surprisingly, a great deal of support among GPs for deputising services. Sixty-seven per cent said that they believed that patient care would suffer if they were to spend more time at work or on call. Table 6 (page 62) shows how often GPs were likely to be on call.

The figures indicate that 87 per cent of doctors are on call for their own patients at least once a week between 1900 and 2300 hours, while 27 per cent are on call

Table 6 Percentages of GPs on call for their own patients by week

Time Band	*Once a week*	*Twice a week*	*Three times a week*
1900 - 2300 hrs	37%	22%	27%
2300 - 0700 hrs	34%	20%	21%

Adapted from: MORI (1984). Attitudes of GPs towards out-of-hours patient care. pp 8 and 10.

three times a week. There is more likelihood of those doctors in single-handed or two-handed practices being on call than those in larger practices. Turning to the later period, 75 per cent of doctors were on duty between 2300 and 0700 hours at least once a week, and 21 per cent three times a week. In smaller practices (one- and two-handed practices) half the doctors were likely to be on duty three or more times a week. At weekends, 63 per cent were likely to be on call at least one weekend a month. In smaller practices, doctors were likely to be on call more often (MORI 1984).

Sawyer and Arber (1982) look at the issue from yet another perspective. Drawing on material from their detailed study for the DHSS on the patient's viewpoint (1979) which was based on Surrey and Wandsworth, they asked patients about the kinds of out-of-hours services they had used in the previous five years. One-third of their original sample said they had used a doctor at night or at a weekend during the the previous five years. On these occasions, 36 per cent had been visited by their own doctor, 25 per cent had been visited by another doctor in that practice, while 6 per cent had been visited by a doctor from a different practice. Twenty-two per cent had been visited by the deputising service.

SECTION 7

Systems for handling out-of-hours calls in London

Deputising services have their origins in London, and doctors practising in the Greater London area continue to make heavier use of deputising services than GPs in most other cities. This section gives a short history of the development of deputising services, together with a brief account of how they are used.

The growth of deputising services in London

Deputising services began with Dr Arthur Bane's Emergency Call Service in 1956. Soon afterwards the GP Relief Service was set up in north London. In 1961, Dr Defee started the Central Relief Service, also mainly confined to north London. Southern Relief, based in south London, was started in the mid-1960s and developed as a subscriber-only service. In 1967, the Central Relief Service became part of a broader consortium of deputising services run by the Association of Medical Directors, while Southern Relief took over the Emergency Call Service and operated over south and north London. In 1970, Air Call Limited, a telecommunications firm linked with the BMA, obtained control of both the GP Relief Service and the Central Relief Service. It later expanded to form another deputising service in south London: the South London Deputising Service. A further service was added in 1984: the Greenwich and Bexley Deputising Service. These four services form the London Deputising Group. In the early 1980s London Locums, a rival company, was set up to cover a wide area of London. Medical Deputising Limited is another recently formed London-based deputising service.

The use of deputising services in London

Deputising services are extensively used in the Greater London area, for the reasons given in section 1. More London GPs have permission to use deputising services than GPs in other parts of the country, as shown in Table 7 (page 64).

These percentages do not, however, give any indication as to how deputising services are actually used. There is very little relevant information available. In Sheffield, Williams and Knowelden (1974) estimated that 50 per cent of night calls were carried out by the deputising services. No comparable research has been done in London.

Table 7 Percentages of GPs in London with consent to use a deputising service: 1978

Area	*% of unrestricted principals with consent to use deputising services*
Kensington, Chelsea and Westminster	73%
Camden and Islington	66%
City and East London	98%
Lambeth, Southwark & Lewisham	65%
England and Wales	39%

Source: London Health Planning Consortium (1981). Primary health care in inner London: report of a study group. London, DHSS.

In the London area as a whole, Central Relief estimates that the GP who uses a deputising service for most of his/her out-of-hours work (every evening from 1900 until 0700 hours and at weekends) will have 10 to 12 calls per month which involve a visit. Three to four of these will be night calls. These figures represent an increase over those quoted for north London in the Acheson report, which gave a call rate of eight calls per month per GP (four calls per 1,000 patients per month). If they are correct, it would appear that there is a growing use of deputising services.

These Central Relief figures suggest a call rate of five to six calls per 1,000 patients per month (assuming a list size of 2,000), or 60 to 72 per 1,000 patients per year. It has been alleged that London patients have a lower propensity to make out-of-hours calls than patients in other cities where deputising services are widely used, despite the fact that a deputising service will always make a visit once a call has been received. This could be due either to low expectations, to the complications caused by the variety of message-handling systems and deputising services, or to the accessibility of A and E departments.

Particular FPCs are responsible for monitoring particular deputising services. In London, the FPC responsible for monitoring Central Relief is Ealing, Hammersmith and Hounslow; for Southern Relief, Bromley; for GP Deputising, Redbridge and Waltham Forest; for Medi-Call Services (London), Kensington, Chelsea and Westminster; for Greenwich and Bexley Deputising, Greenwich and

Bexley; for South London Deputising, Croydon; and for London Locums, Camden and Islington.

Deputising services cost the GP around £50-£60 for a monthly subscription. A fee is then charged for each call. The system of charging varies, but is currently approximately £14.60 per call. (The current night visit fee payable to GPs is £14.95).

The following section provides some information about three of the deputising services operating in London. The descriptions given provide little material which would be useful for comparison or analysis. They are simply included for illustrative purposes.

Central Relief

Central Relief provides deputising services for 550 subscribers, which does not include partners and assistants who may also use the service. This deputising service, like most others, excludes obstetric cover. The number of patients involved is approximately 1.25 million, mainly living in the area of north and west London. The service deals with an average of 100 calls a night and employs about 85 deputies to meet this workload. The average deputy makes 1.5 visits per hour. It is not possible to estimate how this population is actually being covered, as doctors use the deputising service in different ways. It has been suggested that many London GPs accept calls themselves before 2300 hours, but delegate those which they do not wish to visit.

The deputising service keeps operational records for 12 months and clinical records for 15 years. Thus it has been possible for the PACs to monitor how calls are dealt with. Central Relief additionally provides an answering or message-handling service for doctors, and it is perfectly possible for doctors to subscribe to one or both of these services. Calls come in via the switchboard, where information is kept on the doctors' whereabouts. The information is passed to a controller, who passes the message to the deputising doctor. Normally five to eight doctors are on duty, for a six hour session, in the evenings. Central Relief has 22 lines, and all cars are in radio contact with the base. Two to eight trained telephonists/radio controllers are on duty at different times during the day. The staffing level is determined by the predicted workload. An analysis of incoming calls makes it possible to predict peaks and troughs. All non-medical staff undergo a training period of two weeks. Training includes telephone technique, switchboard routines and how to pass calls to deputies. The priority of incoming calls is assessed according to the symptoms described by the caller. A list is

provided for operators, and any calls where symptoms are marked 'priority' or 'urgent' are passed to the deputy as soon as possible. Priority symptoms include chest pain, calls relating to babies, or acute abdominal pain accompanied by vomiting. A second call made within an hour for the same patient is always treated as urgent.

Clinical advice is not given over the telephone by Central Relief, nor are the operators qualified nurses, as they are in some deputising services. A medical director is on call for medical advice, if necessary, throughout the 24 hours. A decision has been made at this particular service, however, to discourage telephone consultations. This may influence the rate of visiting, but will reduce the hazards of telephone consultation for patients who are not known to the doctor. From a commercial point of view it may reduce the operating costs, as a doctor does not need to be available for consultation at deputising headquarters.

Southern Relief

Southern Relief has about 600 subscribers. It covers a wide area of London, plus some of the Medway towns. It has slightly different operating principles but, like Central Relief, it does not provide obstetric cover. It is a subscriber-owned company providing deputising, answering, and radio-communication facilities. A doctor is employed at the headquarters to assess the priority of calls and to give advice to callers over the telephone. The telephone operators are trained nurses. The advantage of nurse-trained telephone operators is that they may have greater understanding of the meaning of symptoms described over the telephone, and may be better able to elicit relevant information. On the other hand, this very ability takes some of the decision-making out of the doctor's hands, a situation which doctors sensitive to their responsibilities under their terms of service do not favour.

GP Relief

This deputising and answering service covers a large part of north and east London London. It is the largest service of its kind in the country, with 800 subscribers to both services and 200 to the answering service alone. Two hundred and fifty doctors are available for deputising, and there are 60 drivers for the car fleet, which is equipped with two-way private radio. In 1982-3, the service estimated that 62.6 per cent of calls were covered within one hour and 93.5 per cent within two hours.

Like other Air Call/BMA services, GP Relief does not specifically employ nurses

as telephone operators, nor does it have a doctor on duty available for consultation with callers. The service is computerised, and visual display units carry the information about GPs. Using this system it is possible to trace a patient's doctor with very little information. This enables operators to deal with anxious callers who, in an emergency situation, may be unable to remember their GP's full name, or other identifying information.

The service also issues two-tone bleepers to its subscribers. These will bleep every ten minutes for one and a half hours until the call is returned.

Telephone answering systems

The purpose of this section is to consider the way GPs' telephones are answered in London, particularly out of hours. The Acheson report, taking the patient's point of view, showed concern about the level of adequacy of answering systems. It commented on the lack of public knowledge as to what services were actually available at different times:

> 'There appears to be a great deal of confusion on this point, even among other health and social service workers. The problems must be much worse for members of the public. Patients needing care are faced with enough stress without having to cope with added pressures imposed by the complexities of the system.' (London Health Planning Consortium 1981, p 29).

Recent evidence suggests that there are fewer GPs in London who run practices which work to office hours: that is, those who have receptionists in their surgeries who can answer the telephone and take messages during the day. There is probably more reliance on answering services off the surgery premises, and on mechanical devices for handling messages or transferring calls. A survey was carried out by the journal *General Practitioner* in 1978 (Lyall 1978). This found that a greater proportion of the surgeries contacted relied on answering machines than in other parts of the country (see Table 8, page 68).

Out of the 30 surgeries contacted, more than 50 per cent of the calls were answered by a recorded message. It must be a matter for concern that those undertaking the survey found that messages left on the answering machines suffered from all the inadequacies which have been referred to previously. Overall, it was found that one-quarter of the messages left on the answering machines were difficult or impossible to hear:

Table 8 Methods of telephone answering: results of a survey (1978)

	Operator intercepted	*Recorded message*	*Answered by duty doctor*	*No reply*
Glasgow	0	3	4	3
Newcastle	6	3	0	0
Manchester	2	2	6	0
Leeds	3	1	3	1
Sheffield	2	3	4	0
Bristol	4	2	3	0
Exeter	1	2	7	0
London	7	13	6	2

Source: Lyall J (1978). The call of duty. General Practitioner, 24 March, p 13.

'In one case in Stoke Newington, two messages were recorded on top of each other. In another, on a large council estate, there are gaps in the tape.'

The author comments that there was a tendency to give too much information about surgery times. Often several numbers were given to contact the doctor at different times of the day or night:

'Many messages leave callers in a mental maze.'

Another source of information is the Acheson report (London Health Planning Consortium 1981), which commissioned a survey on the availability of GPs. This survey, too, was carried out by interviewers telephoning surgeries to see who answered the telephone, and the answering method used. Two hundred and ninety-eight practices were telephoned in inner London and 151 in outer London. These were chosen to get a spread of different kinds of practice. Calls were made in three time bands. Time band A: Monday to Friday, 1100 to 1500 hours; Time band B: Monday to Friday, 2000 to 2130 hours; Time band C: Saturday 1000 to 1200 hours.

From our point of view, there are some limitations to the value of the information collected. First, and most importantly, the survey made no distinction

between GPO intercept and answering machines. These are both systems which ask the caller to call another number, and this is why they were conflated. However, it would have been useful to have the information separately because of the problems associated with answering machines (See section 6). A second problem with this survey was the choice of time bands. It would have been useful, though perhaps difficult ethically, to have had information on which systems were used to handle night calls and weekend calls on Sunday morning. A fundamental weakness of surveys of this kind is that the persons making the calls are not real patients with real needs. In the circumstances, this may distort the information they are given.

The availability survey confirms that there is heavy use of answering machines in London. Table 9 (page 70), shows that 35 per cent of practices in inner London used answering machines or GPO intercept during the day. The number in outer London was much less – 11 per cent – although in the evening period, 59 per cent of London practices used this method and 78 per cent of outer London practices. Therefore the overall average was much the same for both areas. It is likely that the numbers using operator intercept as a method were small, as this is an expensive service. SCT is not available to most inner London GPs as it cannot operate across exchange areas, and there are a large number of small exchanges in inner London.

Some research studies have found that in a small proportion of practices contact could not be made either in or out of hours. The proportion of practices involved seems to be surprisingly consistent. The availability survey showed that in seven per cent of practices in inner London and five per cent in outer London it was impossible to obtain a reply of any sort. The MORI survey was unable to obtain contact by telephone with nine per cent of the sample (MORI 1984, p 1). The *Which* survey (1983) found that the GP's number was unobtainable on the first attempt in five per cent of cases.*

There are reputed to be a large number of commercial answering services operating in London, in addition to those operating alongside deputising services. Answering services are relatively cheap to use, at approximately £25 per month including a bleeper. There are two problems which may arise in relation to answering services: the difficulty for the patient in distinguishing between an answering service and a deputising service; and the variety of methods for getting in touch with the doctor.

**Which* used FPC medical service lists for their sample. These may well have been out-of-date.

Table 9 The GP availability survey: London

Results for inner and outer London on the first call

Results	*Time band A (weekdays)**		*Time band B (evenings)*		*Time band C (Saturday)*		*Total*	
	Inner	*Outer*	*Inner*	*Outer*	*Inner*	*Outer*	*Inner*	*Outer*
1 Spoke to doctor	26%	38%	10%	12%	35%	22%	23%	25%
Spoke to other person who								
2 – said GP was present but could not be interviewed	6%	17%	-	4%	6%	14%	4%	12%
3 – said no GP was there but he could be contacted	18%	13%	6%	2%	8%	10%	11%	9%
4 – said no GP was there and did not know how to contact him	7%	9%	4%	-	6%	4%	6%	5%
5 Answering service	2%	-	12%	2%	7%	-	7%	1%
6 GPO/answering machine	35%	11%	59%	78%	27%	43%	40%	43%
7 Wrong number	1%	-	1%	-	1%	2%	1%	1%
8 Number unobtainable	-	-	-	-	-	-	-	-
9 Persistently engaged	-	4%	-	-	1%	-	1%	2%
10 No reply of any sort	5%	8%	8%	2%	9%	4%	7%	5%
Total**	100%	100%	100%	100%	100%	100%	100%	100%
	(100 GPs)	(53 GPs)	(100 GPs)	(49 GPs)	(98 GPs)	(49 GPs)	(298 GPs)	(151 GPs)

*Includes GP half day.

**Some of the columns do not add up to 100% because of rounding errors.

Source: London Health Planning Consortium (1981). Primary health care in inner London: report of a study group. London, DHSS. Appendix, p 5.

Table 9A A reinterpretation of the GP availability survey: London

Results	*Time band A (weekdays)*		*Time band B (evenings)*		*Time band C (Saturday)*		*Total*	
	Inner	*Outer*	*Inner*	*Outer*	*Inner*	*Outer*	*Inner*	*Outer*
Contact with GP possible	50%	68%	16%	18%	49%	46%	38%	46%
Spoke to GP								
Spoke to other GP available								
GP contactable								
Indirect contact	37%	11%	71%	80%	34%	43%	47%	44%
Answering service								
GPO/answering machine								
Contact impossible	13%	21%	21%	2%	15%	10%	14%	13%
Did not know how to contact GP								
Wrong number								
Persistently engaged								
No reply								
Total	100%	100%	100%	100%	100%	100%	100%	100%

Surprisingly, the availability survey found relatively small percentages of GPs using answering services in inner London, and none in outer London. The use of answering services during the day in inner London was two per cent of practices contacted. This rose to 12 per cent in the evenings, and seven per cent on Saturday mornings.*

By arranging the availability survey figures another way (Table 9A), it is possible to divide the ten categories into three major ones: 1) those where contact with the GP was possible, 2) those where there was indirect contact, 3) those where contact was impossible. Contact with the doctor was possible in inner London in only 50 per cent of cases on weekdays and on Saturday mornings. In

*It should be noted that these figures relate to research done in 1978, and it is likely that the use of answering services has considerably increased.

the evenings direct contact was possible in 16 per cent of cases. The figures for outer London were marginally better.

A third of practices during the day and approaching two-thirds at night used answering services or answering machines/GPO intercept (mostly the latter). The quality and complexity of messages left is unknown; as is the uncertainty in which they could leave the patient. In a substantial proportion of practices, over one-tenth during the day and nearly one-quarter at night, the GP could not be contacted. As the Acheson committee commented, such findings give cause for concern.

Comment

Both the Royal College of General Practitioners (RCGP) and the General Medical Services Committee (GMSC) have recently been concerned with the wider question of out-of-hours services and the narrower issue of answering services following public criticism and the DHSS deputising circulars of 1984.

The RCGP has been concerned generally to maintain the quality of care out of hours. Where possible, it favours the use of inter-practice rotas, cooperatives and principal-based deputising services to cover out-of-hours services. It considers that day and night calls form an integral part of general practice. One of the perceived problems is that too little is known of the impact of out-of-hours work, particularly in deprived inner-city areas (BMJ, 4 February 1984).

The GMSC working party on answering services, as already mentioned, has recently recommended a code of practice which is currently under consideration (GMSC 1984). Some local medical committees have been pressing for such a code, and a number of proposals have been put forward. One suggestion is that telephone answering services with more than 25 subscribing GPs should be subject to supervision in the same way as deputising services (BMJ, 25 February 1984). There is also support from the larger commercial answering services themselves, who believe that they already provide good standards of service.

The method of monitoring any prospective code of practice is a more controversial question, but in our view there seems no reason why this should not become a function of the new deputising sub-committees of FPCs. This would, however, involve time and expense. It also raises the issue of who should bear the cost. It is interesting to note that five per cent of GPs nationally (MORI 1984) worked for the deputising services at least once a week between 1900 and 2300 hours, while three per cent of GPs were on duty between 2300 and 0700 hours.

Table 10 Frequency of night calls

(Results expressed as percentage of nights)

No of calls a night	*Brotherston and others, 1959*	*Webster and others, 1965*	*Crowe and others, 1976*
None	65	79	66
1	27	18	28
2	6	2	6
3	2	< 1	
4			< 1
Total	100	100	100

Source: Crowe M G F, Hurwood D S and Taylor R W (1976). Out-of-hours calls in a Leicestershire practice. British Medical Journal, I, 26 June, pp 1582-4.

The proportion of GPs working in this way must be much greater in urban areas. Indeed, it was put to us that 50 per cent of doctors working for deputising services were local GPs. The incentive for GPs to do this is not only financial. It enables them to do all their night work, if they wish, on one or two nights, or weeks, by being on duty for a large patient population. We do know that the incidence of evening and night calls is sporadic, as shown in Table 10.

Internal rota systems help to give each doctor nights on with more calls and nights off without any. Deputising *could* be seen as an all-embracing rota system giving the opportunity to work more intensively less often (see Hobday 1984). In Portsmouth, for example, all GPs who are subscribers to the deputising service have to participate by providing 16 hours cover per month. Ninety per cent of deputies are practising GPs (Bain 1984).

We cannot predict the consequences for patients of the steadily increasing number of deputising services in London. But because these deputising services overlap each other geographically and operate in different ways, confusion is likely to increase. Certainly the quality of their operations becomes more difficult to control. We would accept, however, that well-run deputising and answering services provide better systems of communication than many existing practices.

This spread of deputising also promotes the increase of 'garage mechanic' medicine. The doctor becomes a technician; one is equally substitutable for another. Both patient and doctor lose the satisfaction of continuity of relationship (for discussion, see Roland 1984). This is not the place to develop these arguments further, although they do have far-reaching implications for the future of general practice.

Summary and conclusions

1 In this report, our objectives were to review the literature on telephone access to GPs in London and to make recommendations for future research and policy changes in the light of our findings. One reason for commissioning the review was a concern to establish whether there was a problem in relation to telephone access to GPs in London. The report of the Acheson committee in 1981 had suggested that there were difficulties.

Our general overall conclusion is that the issue is a complex one, and that the importance of the whole area of telephone access and communication between doctor and patient has been both under-researched and underrated. There are inadequacies, but these stem from a number of factors.

Patients, or those acting on their behalf, do not always use the telephone effectively. Callers may not understand the system being used in a particular practice. Doctors themselves have differing attitudes to the telephone in the management of their practices. The systems they use for message handling and call transfer may vary in type and adequacy.

At a more general level, structural factors create problems of access for patients. Many people with the greatest need for health care do not have telephones because they cannot afford them. They live in neighbourhoods where the levels of telephone ownership are low and where social networks may be poor. These disadvantages can only be exacerbated by the shortcomings of the public telephone system.

As this report is not a comparative study, it is impossible to say with precision whether the situation is worse in London than in other large cities. However the socio-demographic profile, the structure of general practice, and the inadequacies of British Telecom, when linked with social disadvantage, do suggest that problems are greater in London than elsewhere. The remainder of this section elaborates our conclusions and recommendations.

2 In section 1, we summarised some of the recent research on GPs and their patients in London. For a variety of reasons, there are higher proportions of small and single-handed practices and larger numbers of older GPs than in the country as a whole. In inner London the population is highly mobile and the proportion

of people not registered with GPs is higher than average. There are also concentrations of relatively disadvantaged groups such as elderly people, ethnic minorities, and single-parent families in particular areas.

3.1 In section 2, we looked at telephone availability in London. Even though telephone ownership as a whole was higher than nationally, we were concerned to find relatively low rates of telephone ownership among particular groups whose need for access to primary health care was likely to be high: lower-income groups with children, and the elderly.

3.2 We noted that fault rates in public telephones, and in telephones generally, were higher in London than elsewhere. We were further concerned that the groups mentioned above were likely to be living in areas of London where telephone penetration as a whole was low, and where the fault rates of public telephones would lead us to fear that access to a doctor might be inhibited. We were reminded that problems with public telephones affect doctors as well as their patients. Vandalised or out-of-order telephones can hinder visiting doctors from taking prompt action in an emergency.

3.3 We are not convinced that new telephone technologies will improve the situation, as telephone ownership will continue to remain beyond the reach of very low income groups. Although some local authorities have adopted a policy of providing telephones for the elderly and disabled, poor families with young children are not eligible for such help. We do not know whether there are 'caretaker with telephone' systems which could improve access, but this could be explored.

4.1 In section 3 we reviewed the literature on patients and the telephone. From the limited information available, we concluded that with appointment systems, a decline in home visits, and the increase in repeat prescriptions and diagnostic tests, most patients were probably using the telephone more frequently than before. Those patients who did not have access to a telephone used their GPs differently, and were likely to be disadvantaged. There is almost no information on patients' attitudes to telephone access to doctors.

4.2 We do not believe that enough is known about when, or how, patients *or* their doctors use the telephone and about how effectively they do so. We look below at what emerges from the literature on doctors' attitudes to the telephone but it adds very little to our knowledge of patients. Balint's study of repeat prescriptions, with its suggestion that both patients and doctors can use the

telephone as a barrier to face-to-face contact, remains an isolated example (Balint and others 1970).

4.3 In any research, a distinction would need to be made between the use of the the telephone for 'routine' matters, its use in consultation, and its use in emergencies. The actual complications of using the telephone, and the intermediaries involved, would need to be charted.

4.4 Research could be carried out in all these areas, although we do not wish to minimise the methodological difficulties. A client group, perhaps mothers with babies or young children, could be identified within different types of practice and telephone contact recorded. One group could be encouraged to use the telephone, and counselled on how to use it for advice; another not. Such a study could be conducted over a period of time, and conclude with an assessment interview. Another possibility would be to use the method adopted by Holohan (1978) in her study of the communication pathways followed by parents in the case of accidents and emergencies involving their children. These were retrospective accounts, collected through interview. A similar retrospective study could be carried out on access to GPs out of hours.

5.1 Our brief discussion of doctors' attitudes to the telephone (in section 4) serves to illustrate what Dershewitz (1980) has commented upon as the enormous variation in doctors' behaviour on the telephone. Dershewitz argues for the development of telephone management protocols, which could be adapted to conform to local standards of medical practice. However, as an editorial in the BMJ (BMJ 1978) pointed out, in the UK neither the ethical nor the legal pitfalls of telephone consultation have received adequate consideration.

5.2 There is certainly a case for research which records and monitors telephone use by doctors (and other health workers) from the surgery or home. The quantity and timing of calls, their content and outcome, are important and some systematic data would add to our knowledge of this growing area of general practice. Westbury, whose study is one of many to point out the lack of research into telephone communication in primary care, also argues that there is a need for the development of techniques and definitions for recording telephone contacts to the same level of accuracy as face-to-face encounters. (Westbury 1974).

5.3 Such recordings would have a practical use in medical education. This occurs in some medical training in the United States but has apparently not been

developed in this country. Smith and Fischer (1980) argue that some degree of formal training in telephone management could benefit even experienced doctors.

5.4 Mackichan (1976), who recognises the increasingly prominent role of the telephone in the GP's working day, lists a number of procedures for receptionists or secretaries answering the doctor's telephone. His general considerations include instructions to speak very clearly, and to use the Post Office telephone alphabet.

5.5 A recent book on *Emergencies in General Practice* (Moulds, Martin and Bouchier-Hayes 1983) stresses the vital importance of primary contact via the telephone. If the doctor appears unwilling or unhelpful, for example, this can have adverse consequences both for his workload and for the subsequent doctor/patient relationship. Unlike other studies, it starts from the perspective of the anxious caller and takes account of the effects of stress on communications skills. Moulds gives some practical advice to doctors on answering the telephone in emergencies, and provides the useful check list, shown below:

Telephone action summary

1 Obtain the patient's name and address.
2 Obtain the telephone number, if the call is from a public telephone.
3 Assess whether a visit is necessary.

Necessary	*Not necessary*
Assess the degree of urgency.	999 call better?
Is any extra equipment needed?	Advise in simple terms.
Are directions needed?	Ensure that you will be called again if the symptoms change or if the caller/patient is worried.
Advise likely time of arrival.	
If at night, will the house lights be on?	

4 Ask the name of the patient's doctor. (In some practices or rotas, this may be Question 3.)

5.6 To sum up, telephone communication remains haphazard, undocumented, and subject to the idiosyncracies of individual practitioners. Yet handling the telephone call is as important as handling the consultation, and in our view it should be a topic in the vocational training of post-graduate medical students.

Giving clear instructions to those who handle messages or take action on behalf of the doctor is equally important.

6.1 Section 5 attempted to assess the literature on call rates out of hours. On the whole, we found it inadequate. We feel that there is a need for more systematic study of out-of-hours calls, in order to give both GPs and FPCs a greater understanding of the volume of work in general practice and to facilitate any review of methods of practice management.

6.2 We would endorse the recommendations of Buxton, Klein and Sayers (1977), who stress the importance of recording GP activities, including night visits, in order that trends over time and variations between practices may be analysed. 'If it is desirable, in the words of the Committee of Enquiry into Competence to Practise*, "for all doctors to assume responsibility for reviewing their own work with the assistance of their colleagues in similar fields of practice", then it is essential that such reviews should be based on the systematic collection of data rather than on what may be misleading, atypical information based on the experience of a handful of practices. Only on the basis of adequate information can family practitioners develop a consensus about explicit criteria to be used both in "educating" patients about when to request night calls and in deciding when to visit in response.'

7.1 In section 6, we reviewed the systems for transferring calls to and handling messages from GPs. The main systems are operator/subscriber transfer, answering machines and answering services (the latter relying on the previous two methods for handling calls).

7.2 We agree with Acheson's conclusion that many of these systems are confusing for patients. We would also agree that there should be one number for the patient to telephone, where the person taking the call would be able to contact the doctor.

7.3 We think that further study is needed of the telephone systems for call transfer and message-handling which GPs use; also of how they use them, and their adequacy. This could be done through a commissioned research study.

7.4 We also believe that the new FPC sub-committees on deputising services could ask GPs to indicate their methods of call transfer and/or message-handling

**Competence to Practise: report of a committee of enquiry set up for the medical profession in the United Kingdom.* London, The Committee, 1976.

when giving consent to use deputising services. FPCs have an obligation to see that GPs in contract with them keep to their terms of service.* Without the relevant information, they cannot know if this is the case. There should be systematic checks on availability. Perhaps routine inspections of practice premises could also provide an opportunity for FPCs to enquire about the systems doctors use, and give advice if necessary. This could be done in conjunction with the local medical committee. Both Medical Lists and telephone directories should have up-to-date telephone numbers.

7.5 We were not able to investigate the full range of products on the market for call transfer or message-handling. We understand that the DHSS is contemplating a consultancy review in this area. We believe that this would be a useful exercise, as there are a number of systems and products available, at a range of different prices. Some guidance on costs and benefits would surely be of value to GPs.

7.6 It was not possible for us to ascertain the full range of answering services operating in London.

7.7 We would recommend a code of practice for answering services, similar to that operating for deputising services. The code should cover the number of lines, number of operators, the training of operators and assessment of their workload (see GMSC 1984).

7.8 This leads us to the question of the value of a code of practice that is not monitored. We see no reason, apart from the time and expense involved, why the new FPC deputising sub-committees should not also monitor the commercial answering services.

8.1 When we looked at the systems of call transfer and message-handling operating in London we found some evidence of rather a different pattern from that in the country generally. There was more reliance on answering machines than on operator intercept, and an apparently greater use of answering services. There are a large number of commercial answering services in the capital. These services are relatively cheap for GPs, as there is an element of cross-subsidisation involved. The evidence is that answering machines with recorded messages cause

*Regulation 4(4) (a) relates to information to be published by FPCs in the Medical List, including 'the telephone number or numbers at which he (the doctor) is prepared to receive messages'.

many problems. They *must* be regularly checked and, ideally, advice taken on how best to present information to patients.

8.2 We understood that this pattern has arisen because of the inadequacies of BT in London. The large number of small exchanges precludes the use of SCT, as many London GPs live across the exchange boundaries, away from their practice premises.

8.3 Furthermore, BT has been slow in introducing call diverters. These will gradually become available to rent, and will make it possible for calls to be diverted to any number where the GP or deputy doctor can be found.

8.4 These devices should improve services for both GPs and patients. However, the choice of which system to use remains with the doctor.

8.5 At present, GPs' telephone lines are rated E (Emergency) status by BT. E-rated telephone customers are given priority service when faults occur. However, BT is currently considering withdrawing this privilege and introducing a charge. They will be discussing the subject shortly with the BMA and the DHSS. If E status were to be withdrawn from GPs, we feel that existing problems of access can only be exacerbated.

9 In section 7, we discuss the growth of deputising services in London and describe the systems used by some of these. We did not think that it was within our brief to argue for or against these services. There has certainly been an increase in the use of deputising services; in the number of companies providing deputising services; and in the sub-divisions of these companies. There has been an increase in rota systems and cooperative arrangements. There is an argument for economies of scale and effort. Hobday sums it up neatly. On the basis of his study in Maidstone, he points out that GPs have individually an average of one night visit every eight nights. This, he claims is an 'inefficient use of expensive and and highly-trained manpower during unsocial hours, for a trivial proportion of the GP's work.' (Hobday 1984). A cooperative arrangement based on his health district, involving two GPs on duty every night would, he argues, bring down the level to one night on duty every 43. The arrangements assume a sophisticated use of the telecommunications system. But these 'efficiency' arguments need to be weighed against the psycho-social arguments which emphasise the importance of a particular doctor/patient relationship or style of group practice. To quote Roland (1984), 'Is continuity of care a fundamental feature of general practice or is it a luxury to be found only during the doctor's office hours?'

10.1 Of all the aspects of telephone access, the systems used by doctors for relaying messages to emergency doctors remain of crucial importance. It is here that the weakest link appears to be; where standards should be set and monitoring take place. Such monitoring could only be effective if it started from the position of collecting information on what systems GPs are actually using.

10.2 We do not believe that patients are kept well enough informed concerning the arrangements for the transfer of calls and the procedures for message-handling. Cartwright and Anderson (1981), for example, found that half their respondents did not know what arrangements their doctors had for night calls. The production of patient leaflets remains a rarity. A number of members of the profession with whom we discussed this issue stressed its importance. Mackichan (1976) argues that for practice organisation to work efficiently, every patient should understand how the doctor's time is arranged, what the telephone number is, and what to do if the doctor is not available. He recommends issuing a practice information leaflet/sheet to all new patients. This should be available in the surgery for families to take a copy. We understand that the RCGP Patients Group is currently discussing this issue.

The problem of communicating information to patients whose first language is not English is obviously a complex issue. It is an area where FPC and community organisations could work collaboratively to develop appropriate strategies.

11.1 The starting point of this report was the question of problems in telephone access to GPs in London. Our overall conclusion is that there are shortcomings, although we lack the information to quantify their extent.

11.2 These shortcomings derive from a number of factors. Many Londoners do not have ready access to telephones because they do not own them. The public telephone system does not compensate for this. In some places it is seriously inadequate. Arguably, it is becoming more so. The load on the telephone system in London, together with BT's slowness in introducing new technologies, affects the services available to doctors too. In the future the service should improve technologically, but there are indications that it will become increasingly expensive to domestic and public telephone users. Until now, BT has been run as a public service. With privatisation, it is likely that cross-subsidisation from the business sector will cease.

11.3 We have come to the conclusion that there are doctors who are not

available to their patients, particularly out of hours. This may be due to patients not understanding the systems in operation; to inadequacies in the systems themselves; or it may be that the doctor has not made proper arrangements to be available. In this context, the role of the receptionist, or others involved in answering the GP's telephone, is of crucial importance. Little research has been done on the role of such 'intermediaries'. The training of receptionists should be an integral part of good practice management.

11.4 The only statutory body with the powers to monitor 'availability' is the FPC. There is no hard evidence as to how this duty is being discharged. Anecdotal accounts suggest that there are variations in how seriously the responsibility is taken. FPCs have a number of ways in which they could check, help and advise on telephone answering and message-handling.

11.5 Once telephone contact has been made between patient and doctor, then the effectiveness with which it is used rests very much with the doctor. It may be as important a part of medical practice as the face-to-face consultation.

12 SUMMARY OF RECOMMENDATIONS

12.1 Areas for research

We suggest that research would be useful in the following areas:

12.1.1 Patients' attitudes to telephone consultations. Their experiences of the processes involved in calls in and out of hours. The patient's view of the outcomes of illness episodes in which the telephone has played a part.

12.1.2 Doctor's attitudes to the telephone in practice management. Their actual use of the telephone, including use by their intermediaries and relevant members of the primary health care team. A comparison could be made between practices using different kinds of telephone system.

12.2 Medical education

12.2.1 We recommend that consideration be given by the appropriate bodies involved in the vocational training of GPs to the role of the telephone in general practice.

12.2.2 Such training could include a discussion of the telephone systems available, their merits and demerits, the training of members of the practice team concerned with telephone calls, as well as consultation by telephone.

12.3 Family practitioner committees

12.3.1 We recommend that FPCs should collect information on the types of telephone-answering and message-handling systems used by GPs both in and out of hours. They should devise methods of monitoring their use, and they should give advice to GPs whose arrangements do not appear to be satisfactory.

12.3.2 FPCs should also play a part in developing a method for monitoring the code of practice for answering services drawn up by the working party of the GMSC.

12.3.3 FPCs should work with community unit administrators of DHAs, and other organisations such as community health councils, to improve access, including telephone access, to GPs for groups who are likely to be disadvantaged.

12.4 Department of Health and Social Security

12.4.1 We recommend that the DHSS should fund a survey of the products and systems currently on the market for call transfer and message handling. This should include an assessment of costs and benefits.

12.4.2 The DHSS should also be aware of the importance of an adequate public telephone system in access to primary care. It should be sensitive to this issue in the broader spectrum of policy-making and planning over the range of functions for which it is responsible.

References

Arber S and Sawyer L (1979). Changes in the structure of general practice: the patient's viewpoint. (Unpublished report submitted to DHSS). Department of Sociology, University of Surrey.

Arber S and Sawyer L (1982). Do appointment systems work? British Medical Journal, 284, 13 February, pp 478-480.

Bain D J G (1984). Deputising services: the Portsmouth experience. British Medical Journal, 289, 25 August, pp 471-473.

Balint M, Hunt J, Joyce D, Marinker M and Woodcock J (1970). Treatment or diagnosis: a study of repeat prescriptions in general practice. London, Tavistock.

Bentzen N, Russell I and Spark M G (1976). Deputising services in Denmark – some implications for Great Britain. Journal of the Royal College of General Practitioners, 26, pp 37-45.

Bergman J J and Rosenblatt R R (1982). After-hours calls: a first year longitudinal study in a family practice group. Journal of Family Practice, 15, no 1, pp 101-106.

Bevan J M and Draper G J (1967). Appointment systems in general practice. London, Oxford University Press.

Bloomsbury Community Health Council (1982). Finding a doctor in Bloomsbury. London, Bloomsbury CHC.

Bolden K J (1981). Inner cities. London, Royal College of General Practitioners, Occasional Paper 19.

Bone M (1984). Registration with general medical practitioners in inner London. London, HMSO.

Brent Community Health Council (1981). Black people and the health service. London, Brent CHC.

British Medical Journal (1984). Deputising services: a serious blunder. BMJ, 288, 21 January, p 172.

British Medical Journal (1984). Discussions continue with DHSS on deputising services. BMJ, 288, 25 February, pp 655-656.

British Medical Journal (1984). Quality of out of hours care. BMJ, 288, 4 February, p 421.

British Medical Journal (1978). The telephone in general practice. BMJ, 2, 21 October, p 1106.

British Telecom (1984). Report and accounts, 1982/83. London, HMSO.

Brotherston J H F, Cartwright A, Cowan J L, Baldwin J T, Douglas E C K and Steele G A (1959). Night calls: their frequency and nature in one general practice. British Medical Journal, 2, p 1169-1172.

Brown J G, Helling D K, Burns E A, Burmeister L F and Rakel R E (1982). Patient care telephone calls received in family practice offices. Journal of Family Practice,13, no 3, pp 527-532.

Brown S B and Eberle B J (1974). Use of the telephone by pediatric house-staff: a technique for pediatric care not taught. Journal of Pediatrics, 84, pp 117-119.

Buxton M J, Klein R and Sayers J (1977). Variations in GP night visiting rates: medical organisation and consumer demand. British Medical Journal, I, 26 March, pp 827-830.

Campbell A, Mitchell S and Earwicker J (1981). The elderly at home in Hammersmith and Fulham. (Report of the research project on the needs of the elderly.) London Borough of Hammersmith and Fulham.

Caplan S E, Orr S T, Skulstad J R and Charney E (1983). After hours telephone use in urban pediatric primary care centres. American Journal of Diseases in Childhood, 137, September, pp 879-882.

Carey-Smith K A, Dreaper R E and Jenkins C W (1972). Home visits – the patient's viewpoint. Journal of the Royal College of General Practitioners, 22, pp 857-865

Cartwright A (1967). Patients and their doctors: a study of general practice. London, Routledge & Kegan Paul.

Cartwright A and Anderson R (1981). General practice revisited: a second study of patients and their doctors. London, Tavistock.

Central Statistical Office (1983). Regional trends, 1982. London, HMSO.

Children's Committee (1980). Out-of-hours social and health care: report of a working group. Health and Social Services Journal, LXXXX, no 4697, 13 June, centre 8 pages.

Clarke K (1983). Doctors' deputising services. Written answer. House of Commons official report (Hansard), November 23, 49, cols 192-194.

Cole F H (1981). The British Telecom radio paging service in general practice. Journal of the Royal College of General Practitioners, 31, October, pp 621-623.

Collins E and Klein R (1980). Equity and the NHS: self-reported morbidity, access, and primary care. British Medical Journal, 281, 25 October, pp 1111-1115.

Consumers' Association (1983). Access to GPs: a report examining problems associated with surgery hours, appointment systems and deputising services. London, Consumers' Association.

Consumers' Association (1984). Which? investigates the telephone service. Which, February, pp 54-59.

Crowe M G F, Hurwood D S and Taylor R W (1976). Out-of-hours calls in a Leicestershire practice. British Medical Journal, I, 26 June, pp 1582-1584.

Cubitt T and Tobias G (1983). Out-of-hours calls in general practice: does the doctor's attitude alter patient demands? British Medical Journal, 287, 2 July, pp 28-30.

Curtis P and Talbot A (1979). The after-hours call in family practice. Journal of Family Practice, 9, p 901.

Dajda R (1980). Who prescribes? The illusion of power sharing in the surgery. In Mapes R (editor). Prescribing practice and drug usage. London, Croom Helm, pp 147-156.

Department of the Environment (1979). National dwelling and household survey. London, HMSO.

Department of Health and Social Security (1981). Arrangements for the administration of family practitioner services: a consultative document. HN(FP)(81) 12.

Department of Health and Social Security (1978). Code of practice for general practitioner deputising services. HC(FP)(78) 1.

Department of Health and Social Security (1984). General practitioner deputising services. HC(FP)(84) 2.

Department of Health and Social Security (1983). Health care and its costs: the development of the NHS in England. London, HMSO.

Department of Health and Social Security (1980). Inequalities in health: report of a research working group (Chairman: Sir Douglas Black). London, DHSS.

Department of Health and Social Security (1974). Report of the joint working party on general medical services, 1973. (Chairman: Sir George Godber). London, HMSO.

Department of Health and Social Security (1981). Report of a study of the acute hospital sector. London, DHSS.

Dershewitz R (1980). Telephone triage: time for the bell to stop tolling. Public Health Reports, 95, no 4, July/August, pp 326-327.

Devis T (1983). People changing address: 1971 and 1981. Population Trends, 32, Summer, pp 15-20.

Dixon R A and Williams B T (1977). Twelve months of deputising: 100,000 patient contacts with 18 services. British Medical Journal, 1, 26 February, pp 560-563.

The Doctor (1978). Cambridge Medical Answering Services Limited. The Doctor, 8 June.

Downham M A P S (1978). Medical care in the inner cities. British Medical Journal, 2, 19 August, pp 545-548.

Dunnell K and Cartwright A (1972). Medicine takers, prescribers and hoarders. London, Routledge & Kegan Paul.

El Kabir D J (1982). Great Chapel Street Medical Centre. British Medical Journal, 284, 13 February, pp 480-481.

Farmer R D T and Chambers J S (1982). The relationship between the use of accident and emergency departments and the availability of general practitioner services – a study in 6 London hospitals. London, Department of Community Medicine, Westminster Medical School.

Fischer P M and Smith S R (1979). The nature and management of telephone utilization in a family practice setting. Journal of Family Practice, 8, no 2, pp 321-327.

Fleming C, Dellaportas C, de Silva D and Gross M (1982). Medical deputising services. Letter in British Medical Journal, 285, 13 November, p 1428.

Freeman T R (1980). A study of telephone prescriptions in family practice. Journal of Family Practice, 10, no 5, pp 857-862.

Fry J, editor (1983). Present state and future needs in general practice. 6th edition. Lancaster, MTP Press for the Royal College of General Practitioners.

General Medical Services Committee (1984). Report of the GMSC working party on telephone answering services. (unpublished)

General Practitioner (1976). A guide to deputising services. General Practitioner, 10 December, pp 17-28.

Grabinar J (1982). Communication outside the practice: a London view. British Medical Journal, 285, 23 October, pp 1171-1172.

Gravelle H S E (1980). Deputising services, prescribing in general practice, and dispensing in the community. London, King's Fund Centre. KF Project Paper no RC7.

Gray M (1983). Communicating with elderly people. In Pendleton D and Hasler J (editors). Doctor-patient communication. London, Academic Press, pp 193-203.

Greater London Council (1982). The National Health Service and ethnic minorities. London, GLC Health Panel. (unpublished paper)

Greenlick M R, Freeborn D K, Gambill G L and Pope C R (1973). Determinants of medical care utilization: the role of the telephone in total medical care. Medical Care, XI, no 2, March/April, pp 121-134.

Greig D N H (1984). Making an appointment system work. British Medical Journal, 288, 12 May, pp 1423-1425.

Greitzer L, Stapleton F B, Wright L and Wedgewood R J (1976). Telephone assessment of illness by practising physicians. Journal of Pediatrics, 88, pp 880-882.

Hall D W (1975). The off-duty arrangements of GPs in 4 European countries. Journal of the Royal College of General Practitioners, 26, January, pp 19-34.

Hanson F and Wilks M (1984). Mobile patients in an inner London practice. British Medical Journal, 288, 26 May, pp 1579-1582.

Harris C (1984). Mental illness in inner London. British Medical Journal, 288, 12 May, pp 1425-1426.

Hicks D (1976). Primary health care: a review. London, HMSO, p 582.

Hobday P J (1984). Night workload in one health district. British Medical Journal, 289, 15 September, pp 663-664.

Holohan A (1978). The Court report and acute illness in children in a northern town. Health and Social Services Journal, LXXXVIII, 10 November, Centre eight pages C23-28.

Hunt A (1978). The elderly at home: a study of people aged 65 and over living in the community in England in 1976. London, HMSO.

Jarman B (1981). A survey of primary care in London. Report prepared for the Royal College of General Practitioners. Occasional Paper 16.

Jefferys M and Sachs H (1983). Rethinking general practice. London, Tavistock.

Katz H J, Pozen J and Mushlin A I (1978). Quality assessment of a telephone care system utilizing non-physician personnel. American Journal of Public Health, 68, pp 31-37.

Kensington, Chelsea and Westminster Community Health Council (1977). The family doctor in central London. London, Kensington, Chelsea and Westminster CHC.

Kensington, Chelsea and Westminster Family Practitioner Committee (1980). Advertising campaign to encourage people to register with a GP. 1 August to 31 October. (unpublished paper)

Klein R (1982). Private practice and public policy: regulating the frontiers. in McLachlan G and Maynard A (editors). The public/private mix for health: the relevance and effects of change. London, Nuffield Provincial Hospitals Trust, pp 95-128.

Klein R (1983). The politics of the National Health Service. London, Longman.

Knox P L (1979). Medical deprivation, area deprivation and public policy. Social Science and Medicine, 13D, June, pp 111-121.

Last J M (1963). The iceberg: 'completing the clinical picture' in general practice. The Lancet, 6 July, pp 28-31.

Lauglo M (1984). The Spitalfields health survey. London, Tower Hamlets Department of Community Medicine.

Lawrence E, editor (1982). Annual abstract of statistics, no 118. London, Central Statistical Office, HMSO.

Leinster C (1982). Primary health care – a review of services focussing on Newcastle. Newcastle Inner City Forum, April.

Levy J C, Strasser P H, Lamb G A, Rosekrans J, Friedman M, Kaplan D and Sanofsky P (1980). Survey of telephone encounters in 3 pediatric practice sites. Public Health Reports, 95, no 4, pp 324-328.

Liverpool Central and Southern District Community Health Council (1977). Primary medical care and the single homeless in Liverpool. Liverpool Central and Southern District CHC.

Lloyd G (1974). An appointment system in a teaching practice. Journal of the Royal College of General Practitioners, 24, pp 666-668.

Lockstone D R (1976). Night calls in a group practice. Journal of the Royal College of General Practitioners, 26, pp 68-71.

London Health Planning Consortium (1981). Primary health care in inner London: report of a study group. (Chairman: Professor E D Acheson). London, DHSS.

Lyall J (1978). The call of duty. General Practitioner, 24 March, p 13.

McAlister N H and Tong C (1982). A study of family physicians' telephone accessibility. Canadian Family Physician, 28, December, pp 2168-2171.

Mackichan N D (1976). The GP and the primary health care team: a handbook for those employed in, attached to and working with a family practice. Tunbridge Wells, Pitman Medical.

McKinlay W J D (1980). The organisation of general practice. Working paper no 33, Health Services Management Unit, Department of Social Administration, University of Manchester.

Market Research Development Fund (1983). Telephone availability, 1982. London, MRDF.

Mayer T L,Solberg L, Seifert M and Cole P (1983). After-hours telephone calls in private family practice. The Journal of Family Practice, 17, no 2, pp 327-332.

Money Pulse (1981). 8 August, 41, no 32, pp 20-21.

MORI (Market and Opinion Research International Ltd) (1984). Attitudes of GPs towards out-of-hours patient care. MORI, BMA/Air Call.

Morrell D C, Gage H G and Robinson N A (1970). Patterns of demand in general practice. Journal of the Royal College of General Practitioners, 19, pp 331-342.

Morrell D C and Nicholson S (1974). Measuring the results of changes in the method of delivering primary medical care – a cautionary tale. Journal of the Royal College of General Practitioners, 24, pp 111-118.

Morton D J (1979). Night calls in a group practice. Journal of the Royal College of General Practitioners, 29, pp 305-306.

Moulds A J, Martin P B, Bouchier-Hayes T A I (1983). Emergencies in general practice. Lancaster, MTP Press.

Naidoo A S (1982). The doctor's deputizing service in a single-handed practice. Journal of the Royal College of General Practitioners, 32, no 242, September, pp 564-566.

North Hammersmith and Acton Community Health Council (1980). Survey on the elderly. Annual Report, 1979-80. London, North Hammersmith and Acton CHC.

Office of Population Censuses and Surveys (1984). General household survey, 1982. London London, Social Survey Division, HMSO.

Osborn A F, Butler N R and Morris A C (1984). The social life of Britain's five-year-olds. London, Routledge & Kegan Paul.

O'Toole M (1971). How to choose the correct telephone system. Modern Management and Administration in General Practice, 2, no 3, pp 19-20.

Perrin E C and Goodman H C (1978). Telephone management of acute pediatric illnesses. New England Journal of Medicine, 298, pp 130-135.

Pope C R, Yoshioka S S and Greenlick M R (1971). Determinants of medical care utilization: the use of the telephone for reporting symptoms. Journal of Health and Social Behaviour, 12, June, pp 155-162.

Price D J (1974). Radio-paging service. Letter in Journal of the Royal College of General Practitioners, 24, no 140, March, p 195.

Prudhoe R H (1984). Deputising services. Letter in British Medical Journal, 288, 3 March, p 718.

Ramprakash D, editor (1981). Social trends no 12, 1982 edition: a publication of the Government Statistical Service. London, HMSO.

Ramprakash D, editor (1983). Social trends no 14, 1984 edition: a publication of the Government Statistical Service. London, HMSO.

Rankin H W S (1971). Telephone answering and deputizing services in Edinburgh. Practitioner, 207, Supplement August, pp 13-17.

Rathwell T (1984). General practice, ethnicity and health services delivery. Social Science and Medicine, 19, no 2, pp 123-130.

Rayner C (1978). Inner city practice. Letter in Journal of the Royal College of General Practitioners, 28, 187, February, pp 111-112.

Reedy B L E C (1975). Telephone messages received by seven general practices. Journal of the Royal College of General Practitioners, 25, pp 916-923.

Riddell J A (1980). Out-of-hours visits in a group practice. British Medical Journal, 280, 21 June, pp 1518-1519.

Ritchie J, Jacoby A and Bone M (1981). Access to primary health care. London, OPCS Social Survey Division, HMSO.

Roland M (1984). Deputising services. British Medical Journal, 289, 25 August, pp 451-452.

Royal College of General Practitioners (1982). Healthier children – thinking prevention. Report of a working party appointed by the Council of the RCGP. Report from general practice 22.

Royal Commission on the National Health Service (1979). Report. (Chairman: Sir Alec Merrison). London, HMSO, Cmnd 7615.

Russell T (1966). Telephones and their systems. Practitioner, 197, supplement, November, pp 3-10.

Sawyer L and Arber S (1982). Changes in home visiting and night and weekend cover: the patient's view. British Medical Journal, 284, 22 May, pp 1531-1534.

Shackman J (1984). The right to be understood. Cambridge, National Extension College.

Sheldon M G and Harris S J (1984). Use of deputising services and night visit rates in general practice. British Medical Journal, 289, 25 August, pp 474-476.

Sidel V W, Jefferys M and Mansfield P J (1972). General practice in the London Borough of Camden. Report of an inquiry in 1968. Royal College of General Practitioners, 22, supplement no 3.

Silverston N A (1970). Radio communication in general practice. Upjohn Travelling Fellowship Award. (unpublished)

Simpson R (1979). Access to primary care. Research paper no 6. Royal Commission on the NHS. London, HMSO.

Smail S A, Lloyd R H G and Mann P J (1981). New communication service for primary care. British Medical Journal, 282, 31 January, pp 365-368.

Smith S R and Fischer P M (1980). Patient management by telephone: a training exercise for medical students. Journal of Family Practice, 10, no 3, pp 463-466.

Snow T (1981). Services for old age: a growing crisis in London. Mitcham, Age Concern.

Stevenson J S K (1982). Advantages of deputising services: a personal view. British Medical Journal, 284, 27 March, pp 947-949.

Stevenson J S K (1984) Deputising services. Letter in British Medical Journal, 288, 18 February, p 570.

Stevenson J S K (1964). General practice in Scotland – why the difference? A comparative study of statistics from practices in the UK. British Medical Journal, 1, pp 1370-1373.

Strain J E and Miller J D (1971). The preparation, utilization and evaluation of a registered nurse trained to give telephone advice in a private pediatric office. Pediatrics, 47. pp 1051-1055.

Strasser P H, Levy J C, Lamb G A and Rosekrans J (1979). Controlled clinical trial of pediatric telephone protocols. Pediatrics, 64, 5, pp 553-557.

Thornhill Neighbourhood Project (1978). Health care in Thornhill: a case of inner city deprivation. London, Thornhill Neighbourhood Project.

Turner J (1979). The wrong way to get better doctors. New Society, 7 June.

Varlaam A, Dragoumis M and Jefferys M (1972). Patients' opinions of their doctors – a comparative study of patients in a central London borough registered with single-handed and partnership practices in 1969. Journal of the Royal College of General Practitioners, 22, pp 811-816.

Watts C A H (1971). The hot line. British Medical Journal, 3, 14 August, pp 419-421.

Webb P A (1982). Ethnic health project 1979/1980. Royal Society of Health Journal, 102, no 1, February, pp 29-34.

Webster G L, Ritchie A F, Morrell J A L and Scaife B (1965). Night calls in general practice. British Medical Journal, 1, pp 1369-1371.

Weingarten M A (1982). Telephone consultations with patients: a brief study and review of the literature. Journal of the Royal College of General Practitioners, 32, no 245, December, pp 766-770.

Westbury R C (1974). The electric speaking practice: a telephone workload study. Canadian Family Physician, February, pp 69-76.

Williams B T, Dixon R A and Knowelden J (1973). BMA deputising services in Sheffield 1970. British Medical Journal, 1, 10 March, pp 593-599.

Williams B T and Knowelden J (1974). General-practitioner deputising services – their spread and control. British Medical Journal, supplement, no 3562, 16 February, pp 9-11.

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Telephone Access to GPs

A Study of London

by Judy Allsop and Annabelle May

KF project paper no 53 is a study of the problems of telephoning doctors in London as experienced by patients and other service providers. The authors examine the availability of GPs during the day and out-of-hours, the variety of answering services and message-handling devices they employ, and how the telephone is used in practice management. They also ask whose responsibility it is to ensure that new telecommunications technology is introduced into general practice for the benefit of patients seeking access to primary care. The paper includes widespread recommendations.

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