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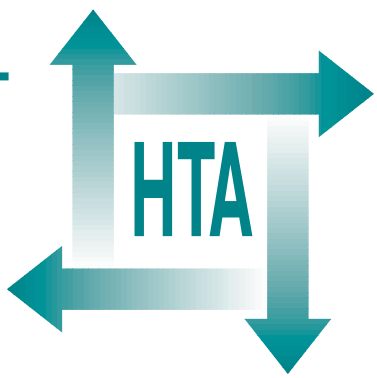
Cooperatives and their primary care emergency centres: organisation and impact

Combined report on seven case studies

L Hallam
K Henthorne

Health Technology Assessment
NHS R&D HTA Programme



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Cooperatives and their primary care emergency centres: organisation and impact

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L Hallam
K Henthorne

National Primary Care Research and Development Centre,
University of Manchester, Manchester, UK

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The overall aim of the NHS R&D Health Technology Assessment (HTA) programme is to ensure that high-quality research information on the costs, effectiveness and broader impact of health technologies is produced in the most efficient way for those who use, manage and work in the NHS. Research is undertaken in those areas where the evidence will lead to the greatest benefits to patients, either through improved patient outcomes or the most efficient use of NHS resources.

The Standing Group on Health Technology advises on national priorities for health technology assessment. Six advisory panels assist the Standing Group in identifying and prioritising projects. These priorities are then considered by the HTA Commissioning Board supported by the National Coordinating Centre for HTA (NCCHTA).

This report is one of a series covering acute care, diagnostics and imaging, methodology, pharmaceuticals, population screening, and primary and community care. It was identified as a priority by the Primary and Community Care Panel and funded as project number 93/20/01.

The views expressed in this publication are those of the authors and not necessarily those of the Standing Group, the Commissioning Board, the Panel members or the Department of Health. The editors wish to emphasise that funding and publication of this research by the NHS should not be taken as implicit support for the recommendations for policy contained herein. In particular, policy options in the area of screening will be considered by the National Screening Committee. This Committee, chaired by the Chief Medical Officer, will take into account the views expressed here, further available evidence and other relevant considerations.

Reviews in *Health Technology Assessment* are termed 'systematic' when the account of the search, appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

The editors have tried to ensure the accuracy of this report but cannot accept responsibility for any errors or omissions. They would like to thank the referees for their constructive comments on the draft document.

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The National Coordinating Centre for Health Technology Assessment,
Mailpoint 728, Boldrewood,
University of Southampton,
Southampton, SO16 7PX, UK.
Fax: +44 (0) 1703 595 639 Email: hta@soton.ac.uk
http://www.soton.ac.uk/~hta

Contents

Glossary and list of abbreviations

Glossary

A&E department This refers to the larger, more sophisticated, consultant-led facilities.

Casualty unit This refers to the smaller, less sophisticated facilities that have no A&E consultants based permanently within them.

Acute trust This refers to the administrative mechanism under which a hospital or group of (small) hospitals operate.

Community trust This refers to the administrative mechanism under which district nurses, health visitors, physiotherapists and similar community-based health services operate.

Abbreviations

A&E	accident and emergency
AGM	Annual General Meeting
CHC	Community Health Council
df	degrees of freedom
DGH	district general hospital
EGM	Extraordinary General Meeting*
FHSA	family health service authority
GMS	general medical services
GP	general practitioner
HCHS	hospital and community health services
LMC	local medical committee
N/A	not applicable*
NPCRDC	National Primary Care Research and Development Centre

* Used only in tables

Executive summary

Objectives

This study aimed to describe:

- the development of cooperatives, their structure, organisation and finances
- the patterns of care provided
- the attitudes and experiences of service providers and users
- stakeholders' views of the strengths and weaknesses of cooperatives.

Methods

Case studies were conducted in seven cooperatives between July 1996 and April 1997. Sites were selected to reflect diversity in number of members, scale of operations, organisational features and nature of area covered. Interviews were conducted with key informants, general practitioners (GPs), cooperative staff, and representatives of health authorities, accident and emergency (A&E) departments, ambulance trusts and community health councils. Six of the seven cooperatives provided details of all consultations over a 4-week period. From these, 400 patients in each were randomly selected to receive a postal questionnaire covering their expectations, experiences and satisfaction.

Selected cooperatives

Membership numbers ranged from 26 to 186 GPs, serving 45,000–400,000 patients. The selected sites included urban, rural and mixed areas, and patient populations covered a broad spectrum of socio-economic groups. The cooperatives had been established from between 1 and 5 years at the time of the study and operated from a total of 16 emergency centres.

Results

Reasons for establishing cooperatives

Most members established and joined cooperatives with the aim of reducing their hours on call. GPs viewed the change as essential to: improve their quality of life; meet the rising demand; increase the attraction of general practice as a career choice; and aid recruitment in their own practice. Their concerns included: heavy workload for the duty rotas; increased travel distance resulting in delays in reaching patients; and varying standards of care.

Organisational features

The 16 emergency centres were located in community hospitals (5), A&E departments (2), other hospital departments (2), GP health centres (2), community health clinics (2), purpose-built/converted premises (2), and an ambulance station.

Average shift commitments ranged from 1.5 to 4.2 per month. It was usual to have only one GP on duty a night in each centre, covering 30,000–180,000 patients, though a second GP might be on call if needed.

Costs and funding

Annual operating costs varied widely between cooperatives, with gross cost per GP ranging from £1000 to £3800; the major source of variance was support staff costs.

Patterns of work

On average, the cooperatives studied visited 26% of callers, saw 30% at the centre, and advised 40% by telephone.

Conclusions

Cooperatives have improved the quality of life for GP members by reducing out-of-hours commitments and professional isolation. Patients attending cooperative centres are as satisfied with their treatment as those visited at home and more satisfied with response times.

However, rising demand means that cooperative members fear a step towards 24-hour access to routine care with associated problems of increasing rota commitments for GPs. Wide variations in patterns of care and response times lead to questions of equity and safety and this is clearly an area that needs to be addressed. At present there is no single model for the future to which all stakeholders in emergency care would subscribe.

Chapter 1
Introduction

Demand for general practitioner services outside normal surgery hours has risen substantially in recent years.[1] While commercial deputising services have expanded to meet a growing proportion of demand in urban areas,[1–3] much of the burden has fallen on general practitioners (GPs), particularly in small towns and rural areas. Cooperatives have become an increasingly popular approach to organising out-of-hours provision in general practice.[4]

A GP cooperative has been defined as:

> "...a non-profit making organisation, entirely and equally owned by, and medically staffed by the GP principals of the area in which it operates. The main purpose of such a co-op is to cover the 'out-of-hours' commitments of its members." (National Association of GP Co-operatives)

In 1993, there were 31 cooperatives operating in England, though not all accorded strictly with the definition above.[2] The great majority were less than 3 years old and only five had been established prior to 1985. The main barriers to their development, which existed at that time, included lack of finances for setting up, and a night-visit fee structure that was unfavourably weighted against large groups of cooperating GPs.

In 1995, in response to increasing dissatisfaction among GPs with their 24-hour commitments, the Department of Health removed these barriers by establishing a £45 million annual development fund for GP out-of-hours services and by reforming the payment and fee structure.[5] They also re-wrote the GPs' terms and conditions of service to stress that GPs were the sole arbiters, on grounds of clinical need, of whether and where a patient should be seen. This encouraged cooperatives to offer centre-based care as an alternative to the traditional pattern of home visiting. As a result of these initiatives, the number of cooperatives and primary care emergency centres mushroomed almost overnight.

There is no single model of cooperative care. Cooperatives vary in size, from 15 GPs to over 200, and from a small town and its immediate environs to several hundred square miles. Although the majority provide full out-of-hours cover for members, a small number operate only at nights and/or at weekends, and individual members can choose to subscribe to only part of the service they provide. Their administrative arrangements range from the informal (one or two GP members working one or two paid sessions a week), to the highly organised (a governing council, medical managers, and employed administrators, accounting and clerical staff).

By their nature, cooperatives need good communication and record systems, both for patient–GP interactions and for passing information to subscribing practices. Again, there are variations in scale. A small group can operate with practice answerphones, mobile phones, faxes and a manual record system. More sophisticated operations may have dedicated switchboards, radio-linked cars, computerised record systems and modem links to subscribing practices. Alternatively, they may choose to contract out their telephone and despatch arrangements, for instance with a local ambulance service. In some cases, GPs use their own cars; in others there are leased cars and employed drivers. Others still contract out their transportation, again often with a local ambulance service.

Most cooperatives now operate from primary care emergency centres and make efforts to persuade patients to attend in preference to visiting patients' homes. Such centres may be just a small part of a member's daytime surgery premises or they may offer impressive waiting, consultation and treatment facilities for patients, and bedroom, bathroom, kitchen and lounge facilities for members of the on-call team.

While it is common for nearly all GPs to contribute shifts to the cooperative, the nature of commitments can vary, with a limited number of members contributing more financially to the cooperative's upkeep in exchange for playing only a small, or no part, in the rota arrangements. Conversely, where shifts are well rewarded financially, GPs with smaller practices may choose to increase their income by contributing more to the rota.

Financial arrangements also differ widely. Each cooperative must achieve a balance between income from development funds, membership subscriptions, allowable staff and premises reimbursement and night-visit fees on the one hand and payments

for premises, staff, subcontracted services, recurrent costs and rota duty fees on the other. While some have pitched this balance at a very low level, others have chosen higher cost options.

There has been little attempt to evaluate the various models of cooperative organisation or to assess their impact on patterns of service delivery and the patients whom they serve.[6–9]

Chapter 2
Methods

The current study

The research brief

In May 1994, the National Primary Care Research and Development Centre (NPCRDC) was invited to submit a research proposal to the NHS Executive Health Technology Assessment Programme in response to an identified need for further information on the costs and benefits of 24-hour primary care emergency centres. The issues they wished to address were:

- the potential demand for 24-hour primary care
- the costs and cost consequences of 24-hour primary care centres
- the costs of alternative models for providing 24-hour care
- the impact of alternative models of out-of-hours care provision on other parts of the health-care sector
- the impact of centres on workload and patterns of care
- the effect of centres on the quality of care and GP morale.

There are a number of pre-requisites to the successful, formal evaluation of any innovative system of healthcare delivery. First, it is essential that there is some standard of comparison, either against stated aims, or against the performance of the existing system, or against an alternative system. Secondly, it is necessary to understand the structure and dynamics of the new system. These conditions could not be satisfied. Neither a randomised controlled trial nor a pre- and post-intervention study was feasible. The proposed study therefore aimed to meet a more basic research agenda, which would provide information and data needed to inform policy and direct future work.

At the time that the work was commissioned, the great majority of primary care emergency centres were operated by GP cooperatives. These were known to vary in size, scale of operations, number and location of centres and the emphasis placed on centre-based care. The chosen research method was therefore a series of case studies, based on cooperatives selected to reflect this diversity.

Aims

The aims of the study were to:

- identify existing cooperatives that incorporate or are based upon patient attendance at a centre, and to recruit a range of sites for case studies
- describe the establishment, subsequent development, structure and operation of each cooperative and its member centres
- describe the perceptions, attitudes and experiences of providers and users
- assess stakeholders' views on the strengths and weaknesses of alternative systems of providing out-of-hours services
- promote future service developments based on sound research evidence.

It was also hoped that the conduct of and findings from these initial case studies would prove valuable in the design and prosecution of further evaluative studies seeking to assess the impact of centre-based, cooperative care on:

- the demand for out-of-hours care
- the cost of out-of-hours care
- the effectiveness of care as evidenced by clinical outcomes and patient satisfaction
- the volume of daytime surgery consultations and home visits
- the workload of other emergency services, for example, hospital accident and emergency (A&E) departments and ambulance services.

A before and after study of the introduction of cooperative, centre-based care has since been undertaken. This examines its impact on demand, patterns of service delivery, patient and provider satisfaction, and the workload of other emergency services. Resource constraints limited the number of aims that could be pursued. It was not possible, for instance, to track clinical outcomes or to undertake a full cost analysis. This follow-on study is the subject of a separate report, and findings will be disseminated more widely in the near future.

Preliminary research and site selection

A telephone survey of all family health services authorities (FHSAs) in England and Wales, seeking to establish current patterns of demand for and

provision of out-of-hours care, had been conducted in 1993 by members of NPCRDC staff.[2] During the course of the survey, a limited number of innovations in service delivery, which included an element of centre-based care, were reported. However, FHSAs were aware of and in some cases actively promoting additional centre-based plans, some of which were considerably more ambitious than those existing at the time. Efforts were made to re-establish contact with the managers interviewed in 1993 during the period September to December, 1995.

This proved more difficult than had been anticipated. FHSAs and health authorities were already joining together in response to legislation on the merger of their roles by April 1996. Addresses and telephone numbers had changed and new directories were not yet available. Key individuals from FHSAs had lost or left their posts, and it was difficult to identify who now had responsibility for and/or knowledge of out-of-hours care arrangements. New post-holders frequently found it difficult to access the information sought.

It had originally been planned to conduct a full, in-depth census, updating the work completed in 1993 when questions were posed on:

- the composition of general practices in the area
- the nature of the area covered
- the extent and nature of the information held on GP out-of-hours services
- current practice arrangements for providing out-of-hours care
- use and control of commercial deputising services
- history and operational details for any existing, innovative out-of-hours schemes including cooperatives
- plans for any further innovations in out-of-hours care in general practice
- number and cost of night visit fee claims for the preceding financial year.

It rapidly became apparent that changes at FHSA level would not permit the systematic gathering of detailed, standard information to match that obtained in 1993. Further, in terms of innovations in out-of-hours care, there had been very little change in the interim, but there would be extensive changes in the coming year as a result of the creation of the out-of-hours development fund. These problems would render any 'snapshot' view of current provision and utilisation both incomplete and, within months, also obsolete. The decision was therefore taken to reduce the scale of the survey, and concentrate on identifying fully operational cooperatives offering centre-based, out-of-hours services. The names and addresses of key GPs within each cooperative were also obtained and these people were approached for any information that the FHSA did not have.

Twenty-eight cooperatives operating in England that regularly offered consultations at a designated centre were identified. They ranged in size from ten to 190 GPs. They covered wholly urban, wholly rural or, more frequently, mixed geographical areas. They were located on general hospital sites, in A&E departments, in community hospitals, in health centres, in community health clinics, in ambulance stations and elsewhere. Their staffing levels varied, as did their transportation and communication systems.

The main criterion governing case-study site selection was diversity; that is, site selection was intended to demonstrate the differences in the numbers of GP members, scale of operation, organisational features, geographical size and location, and types of population served. To that extent, findings relating to individual features of cooperatives and centre organisation and care should be generalisable to other cooperatives and centres that share those features.

Eight sites were initially selected, six of which are included in this study. These six sites showed great diversity in the features described above. A seventh site was included at a later date to reflect the growing interest in telephone triage by nurses, which was not represented in the original six. Wherever possible, well-established cooperatives were selected to minimise the risk of significant changes in operations during the course of fieldwork.

The number of cooperatives throughout Great Britain has grown from 31 in 1993 to over 260 today, which means that different organisational models have evolved since the time of the original site selection (87% of cooperatives became operational after 1995[10]). An example of this is the urban-based cooperative working alongside its local deputising service to provide out-of-hours care. Because the rate of change in the arena of out-of-hours service provision has been so rapid, it can be argued that this study represents only a sub-section of the organisational forms that now exist. However, nearly three-quarters of cooperatives operate in rural or mixed urban/rural areas, and the case study sites are typical of these types.

Initial site visits were undertaken between January and March, 1996. Their aim was to inform key individuals of the proposed research programme and the planned methods, to secure their commitment to taking part, and to solicit their views on the appropriate aims and conduct of the study. Some sites were visited more than once so that researchers could outline the planned study to wider groups of healthcare professionals.

Research methods

Fieldwork began in July 1996 and was completed in April 1997. The collection of data took a variety of forms, both quantitative and qualitative. The methods employed were the same at each site, though sample size, timing, response rates and levels of cooperation varied. The basic research methodology carried out at each site is given below.

Qualitative data collection

Qualitative methods were used to gain information on the history, structure and operation of sites, the views and attitudes of cooperative members and staff, the views of providers of alternative or complementary emergency services and the views of consumer representatives.

- **Key informant interviews**: in-depth interviews, lasting 1–2 hours, were conducted with one or more 'key informants' at each site, usually the cooperative administrator and/or a GP who had been instrumental in establishing the cooperative. These met the aim of describing the establishment, subsequent development, structure and operation of each site.

- **GP interviews**: semi-structured interviews were conducted with between six and 15 GP members at each site, dependent upon the size of the organisation. Where cooperatives operated in zones or from multiple centres, the larger sample sizes were needed to ensure that views within each zone or centre were adequately represented. The interviewees were selected to reflect a range of viewpoints and included a younger GP, a senior partner, a single-handed practitioner, GPs from mid- and larger-sized practices, and GPs who had been instrumental in setting up the service. One interviewee might combine two of these features. These interviews contributed different perspectives on structure and operation and also met the aim of describing the perceptions, attitudes and experiences of providers and their views on the strengths and weaknesses of cooperative centre-based care.

- **Healthcare purchaser/provider interviews**: semi-structured interviews were also carried out with health service managers, purchasers and providers, in order to place the work of the cooperatives within the context of the wider provision of local health services. Views were sought on the impact of the cooperative and its emergency centre(s) on the workload of other providers. Interviewees included representatives from the health authority, local A&E departments, the ambulance trust, and the Community Health Council (CHC).

All key informants who were approached agreed to participate, though at one site cooperation was limited due to internal changes within the cooperative and a consequent lack of time on the part of the key informant. GPs were selected from practice lists supplied by the key informant. At two sites, where a small number of GPs refused interview due to their surgery commitments, re-selection of another GP with similar characteristics took place. All other providers and purchasers agreed to interviews, either with the person originally contacted or with a more appropriate member of senior staff.

The interviews were analysed thematically, with dominant themes forming the sub-headings of this report. The themes are backed up by relevant quotes from the content of the interviews.

Quantitative data collection

Quantitative methods were used to establish the workload and patterns of care within centres and to explore the experiences of users.

- **Logging out-of-hours contacts**: each site was asked to provide details of all out-of-hours contacts with patients over a 4-week period. This was considered the minimum period necessary to establish the overall pattern of care for a cooperative, given that individual GPs would vary in their behaviour, and each GP might only be on duty once or twice a month. As sites were generally being asked to collect additional items of data, it was also considered to be the most that could be asked of them. Five of the sites recorded out-of-hours contacts manually on printed log sheets. Two had computerised record systems using a purpose-designed package called Adastra®. Modifications were made to manual records and computer systems for the 4-week period in order to standardise data across sites. The dates during which consultations were logged varied from site to site. The small research team involved could not have handled the patient surveys (see

below), which were based on random samples of these consultations, had they all recorded at the same time. One site withdrew from the study before this stage of the research.

- **Patient postal questionnaire**: a random sample of 400 patients at each site was sent a postal questionnaire dealing with their expectations, experiences and satisfaction with the service. The sample size was determined in consultation with a statistician to provide sufficient numbers to make comparisons within and between sites. To protect confidentiality, patients were randomly selected by contact number from unnamed log sheets and printouts. Either cooperative staff themselves organised the mailings (in which case the researchers were unaware of the names and addresses of patients), or names and addresses were provided by the cooperative without reference to contact numbers. At no time could researchers match details of a consultation to the patient's identity. To minimise potential distress or embarrassment to patients, GPs were allowed to exclude sensitive cases. The need to preserve confidentiality resulted in a delay between the patient's contact and receipt of a questionnaire. Questionnaires were despatched weekly, approximately 2 weeks after the patient's original contact, with a single reminder after 3 weeks. It was only possible to survey patients in six sites because the seventh one had not completed the logging exercise.

- **Additional data**: where possible, data on the provision and use of other out-of-hours services during the 4-week logging period were also collected.

Quantitative data were analysed using the Statistical Package for the Social Sciences. Where appropriate, the results of χ^2 tests are represented. Given the number of cases involved, only values of $p < 0.01$ have been deemed to reach statistical significance.

A fieldwork timetable and summary of the data collected are presented in appendix 1.

The selected case study sites

A broad overview of the seven sites selected is given in *Table 1*. Throughout this report, further compari-

TABLE 1 *Overview of the seven cooperative sites*

Characteristics	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Countydoc
Size	32 GPs from nine practices	26 GPs from nine practices	89 GPs from 20 practices	84 GPs from 29 practices divided into four sectors	68 GPs from 23 practices, divided into two rotas plus one individual practice	75 GPs from 25 practices	173 GPs from 45 practices, divided into six zones
Location	NE coastal town and its immediate environs	Extensive rural area bordering South Wales	SE England, coast and inland areas	East Anglia	South Humber town and surrounding rural areas adjacent counties	East Anglia, widely spread, semi-rural, towns and villages	SW England, countywide and taking in border practices from three
Established	April 1993	February 1994	February 1992	March 1993	March 1996	July 1995	April, 1995
Population	51,000 patients served from a broad spectrum of socio-economic groups, but with high levels of unemployment, low paid work, deprivation and social problems	45,000 patients served; predominantly lower socio-economic status, with high unemployment	180,000 patients served; mixed socio-economic status, but few highly deprived areas	Up to 180,000 patients served; sectors vary from affluent to rural poor	124,500 patients served; areas of high unemployment and social problems within the town; more affluent suburbs and surrounding areas	120,000 patients served; mainly middle-class	Approximately 400,000 patients served in rural, semi-rural and urban areas; mainly affluent middle-class but some deprived areas in major coastal towns and some pockets of rural deprivation
Type of centre(s)	Single centre adjacent to, and sharing entrance with DGH A&E	Two centres, each located within a community/cottage hospital	Purpose-built centre for co-operative, multi-fund, GP practice and council	Four: one purpose built; one community hospital; two health centres	Single centre on DGH site but not adjacent to A&E	Single centre in health authority clinic	Six centres: one health centre; one ambulance station; two community hospitals (with casualty facilities); one DGH A&E department; one DGH outpatient department

sons of key features appear under the relevant headings. In order to provide some anonymity, they have been renamed for one of their key features.

Site 1 – **Smalldoc** (so-called because it is small, compact and simply organised)
Site 2 – **Cottdoc** (so-called because it uses cottage hospitals as centres)
Site 3 – **Leaddoc** (so-called because its area took a lead role in developing cooperatives)
Site 4 – **Fourdoc** (so-called because it operates from four out-of-hours centres)
Site 5 – **Nursedoc** (so-called because of its extensive use of nurse triage)
Site 6 – **Fardoc** (so-called because its single centre covers a wide area)
Site 7 – **Countydoc** (so-called because its coverage is countywide).

Chapter 3

Results – establishing cooperatives

The aims, aspirations and fears of founders and members

The key aim of the GPs who were instrumental in establishing cooperatives was the obvious one of reducing the number of hours spent on call. The GPs deeply disliked their out-of-hours responsibilities and believed that many of their colleagues felt the same way. Their views were amply confirmed by many, though by no means all, of the GPs they sought to recruit. Dislike sprang from a number of contributory factors:

- the number of hours spent on call, particularly for those involved in small rotas or no rota
- the impact this had on their personal life, including the intrusion and disruption of telephone calls and their inability to play a full part in normal social and family activities
- the stress they experienced prior to and while on call
- the fatigue they experienced after a demanding duty period and its impact on their daytime work.

The following quotations are typical of those advanced for joining and forming cooperatives:

> "I hated being on call. It was really colouring what I did during the day as well. I found it an enormous intrusion on my privacy when the calls came into the house and I actually behaved quite out of character. It really used to drive me mad. .... I often could be quite offhand to the patients; I am not really like that and I used to hate myself. It was only when speaking to one or two other doctors that I realised that I was not alone, that the other doctors behaved irrationally; this kind of system was actually being quite injurious to the health of a lot of doctors." (Smalldoc, GP)

> "Mine was a very selfish and personal agenda. [In a co-op] I wouldn't be on call every other night. I was carrying a pager around five days at a time and it restricts your life greatly. It also restricted my wife's life. Nice as the area is, I'd had enough. So it was either we had a co-op or I left." (Cottdoc, GP)

At a less-personal systems level there was a belief that rising demand and expectations from patients, coupled with changes in the attitude of new entrants to general practice, would eventually make traditional patterns of personal and rota care unsustainable. It was even suggested that in some rural areas the whole structure of general practice was under threat because heavy out-of-hours commitments made practices unattractive to the declining number of medical school graduates entering general practice. A more structured system that would make more efficient use of GP time, meet rising demand and fulfil the aspirations of younger and female GPs was needed.

As four of the seven sites studied had begun planning their cooperative in 1992 or earlier, there was not a great deal of emphasis on substituting centre-based care for home visits. (At that time, night-visit fees were payable only for home visits, and Clause 13 of the GPs' *Terms and Conditions of Service* had not been rewritten to clarify their right to decide the appropriate site for a consultation.) In fact, one cooperative (Fourdoc) was set up as a home-visiting service without an emergency centre. Another (Smalldoc) initially operated only at night and weekends and made very little use of its relatively limited centre facilities. In a third (Cottdoc), GPs on duty out of hours already made use of community hospital facilities to see patients and thus were not planning any great change; this was also true of some members of Countydoc. Only two of the three most recently formed cooperatives (Fardoc and Nursedoc) began with a strong commitment to reduce home visiting to a minimum. These early attitudes have had a considerable influence on current patterns of care.

Common fears expressed by the GPs forming and joining cooperatives included:

- the workload may prove to be too heavy to be handled safely by the planned duty rotas
- the geographical spread of the area to be covered may lead to generally poor response times and potential disasters
- the cooperative may offer variable standards of care related to the competence of individual members and their familiarity with patients' histories.

While rotas had been planned on the basis of what was currently known about out-of-hours demand in the area to be covered (albeit sometimes limited evidence), it was obviously difficult for GPs to reconcile the evidence with their

subjective feelings about how onerous their commitments were. For instance:

> "We calculated the workloads and it seemed incredibly low. ... We thought it would be much busier. ... People tended not to believe the figures... to remember the really bad evenings that they'd had rather than the good ones." (Fardoc, GP)

The scenario, in which two life-threatening emergencies occurred simultaneously at opposite ends of a cooperative's catchment, was a recurrent nightmare that, in retrospect, had been grossly exaggerated:

> "Our practice goes [as far as] 15 miles out [from the co-operative base] and there were considerable worries that you'd have a night visit and somebody else would need you 20 miles away. That caused a lot of worry." (Fardoc, GP)

There were also more specific fears relating to the features of individual cooperatives:

- costs of membership and loss of income may deter potential members or result in the collapse of the cooperative at a later date
- rural patients may be treated inequitably compared with urban patients
- nurse triage may prove to be unsafe or ineffective.

The impact of the cooperative on the doctor–patient relationship was apparently only a minor concern voiced by few of the GPs interviewed but predominantly clustered in two cooperatives. In others, there was a sense that a change in organisation was essential from the GPs' point of view and that, while patients would not understand and might not accept less personal care initially, with time their attitudes could be changed (see also *Publicity and public relations*). Again, it is important to remember that the emphasis on centre-based care was not as strong in the early cooperatives as it has since become.

> "What would the patients say, because they were used to this very homely response and they were now going to get something which seemed less homely and less immediate as well. We just hoped that patients would accept that, which indeed they have." (Fourdoc, GP)

> "[It was] very much something for the doctors and not for the patients at that time. It was supposed to make [the doctors'] lives better." (Leaddoc, Administrator)

Despite all the groundwork laid by organisers, there remained the uncomfortable feeling that it was a 'step into the unknown' or a 'leap of faith.'

The planning process

Five of the cooperatives studied can be described as **bottom-up** developments, in which two or three local GPs played the leading role in planning, organisation and recruitment, with varying degrees of support from their FHSA/health authority. One cooperative (Nursedoc) is something of a hybrid in that the catalyst for its establishment was the 1995 Development Fund and the health authority's request to local medical committees (LMCs) that they formulate plans for its use. The LMC secretary then became the driving force behind the co-operative with the help of a health authority officer seconded to facilitate the development. The seventh cooperative (Fourdoc) was very much a **top-down** innovation with the medical advisor to the FHSA promoting the formation of cooperatives throughout the county. The FHSA undertook all organisational and management tasks, including negotiating and holding contracts on the cooperative's behalf.

> "It has to be said that initially it was [the FHSA Medical Advisor's] enthusiasm and ability to sell the idea that got the whole idea off the ground. It was the commitment of the FHSA, [but] very much about there being somebody who was an ex-GP, who was a local adviser; it was like having a product champion inside who was very senior. I don't think until very recently have we seen groups of GPs who are terribly enthusiastic demanding a co-op. At that point [1992] the idea was a new concept in itself, so it was very much FHSA and health authority led." (Fourdoc area, Health Authority Officer)

This early difference in leadership has had a major impact on the current character and management of the organisation thus created.

FHSA/health authority support was an important factor in all developments (*Table 2*). At the least, they helped the GP organisers to obtain development grants and to use *Red Book* financial regulations to the cooperatives' advantage. Frequently they themselves provided seed-corn funds, bridging finance pending grants or even full development costs. In two instances, they seconded an officer to work with the GPs.

> "I think they actually came to the FHSA as a first point of call because of the areas we could help them with: non-recurrent IT costs, general networks, [liaison with] ambulance and CHC, and also what you might describe as their statutory requirements. That was advice on how to handle issues like re-defining practice areas." (Smalldoc, GP Liaison Officer in health authority)

TABLE 2 *Overview of the planning process*

	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Countydoc
Instigators	Two local GPs	Two local GPs	Two local GPs	FHSA (medical advisor)	Health authority approach to LMC, taken up by LMC secretary	Two local GPs	Three local GPs
FHSA/ health authority	Provided liaison officer; advised and gave administrative support	Secured regional grant; set standards; monitored	Advised and supported financially	Developed, organised, managed and funded	Seconded officer to facilitate development; financial guarantees	Logistical, financial and moral support	Initiated meetings on GPs' problems; offered funds for solutions; funded set-up from non-GMS money; seconded officer to act as manager
Steering/ management group	Rep from each practice at late stage of development	Third GP added to planning team at late stage	None until launch	None until launch	Steering group of six GPs, health authority officer and A&E department manager	Organising committee of volunteer GPs and health authority rep	Two medical managers only initially
Development path	Fact finding; firm proposal; general meeting; individual meetings with practices and GPs	Fact finding including visits to three existing co-operatives and assessing existing supply and demand; identifying sources of finance; business plan; general meeting; individual meetings	General meeting; fact finding including visits to other co-ops	Series of meetings with local GPs	External funding; general meeting; steering group; fact finding; meetings with practice reps and individual practices	Fact finding including contacts with existing cooperatives and survey of local GPs; recruitment circulars; general meeting; organising committee; individual meetings with practices and GPs	Fact finding including visits to other cooperatives; general meetings around county; bidding for health authority funding; publicity
Length of process	Approximately 18 months	Approximately 15 months	4 months	Approximately 12 months	Approximately 6 months	10 months	18 months (10 weeks once funding secured)

Generally, regardless of the identity of the key instigators, development followed a similar pattern, though not necessarily in the order listed below:

- fact finding by collecting data on local demand and provision, identifying existing models of cooperation, visiting/corresponding with established cooperatives
- identifying external funding sources and exploring impact of financial regulations
- preparing proposals and business plans
- organising general meetings of local GPs to discuss plans and assess interest
- establishing steering groups or management committees
- meetings with individual practices and GPs to secure their commitment to membership.

The extent and nature of fact-finding exercises ranged from getting night-visit statistics from the FHSA/health authority to mounting full-scale surveys of local GPs' out-of-hours workload, and from scanning the GP press for news and features on cooperatives to visiting three or four existing cooperatives. At general meetings, local GPs could be presented with a fully developed plan for the cooperative and asked to endorse it, or could be asked simply to commit themselves to the idea of a cooperative and elect a small group of people to work on its development.

A broad overview of the planning process at each site is given above. It is necessarily brief and does not accurately convey the difficulties faced by each group. Additional information on problems with recruitment and identifying suitable premises appears below (see *Recruitment of GPs*) and later in this chapter (see *Choice of sites*).

Recruitment of GPs

Broadly, those cooperatives that were set up in well-populated areas with a potentially large number of GP members could adopt a more relaxed attitude to recruitment than those in areas with few GPs and where the cooperative would not be viable without almost full participation.

> "The most difficult thing, particularly within a small rural area, is that for the cooperative to be effective, you have to have most of the people involved, otherwise it's not viable. It's not like starting up a cooperative in a city where if one in four agree,

that's fine. The problem here is the geographical spread – you have got to get everyone in. It's an advanced exercise in politics. It took quite a number of meetings and quite a bit of time. Remember, things have changed in the last year and it's all become very fashionable, but this was before its time." (Cottdoc, founding GP)

The two smallest cooperatives studied, Smalldoc and Cottdoc, with 32 and 26 members, respectively, each had 11 practices within the area they proposed to cover. Smalldoc succeeded in recruiting ten, one of which subsequently withdrew. Cottdoc initially recruited eight, with a ninth practice joining shortly after the formation of the cooperative. Both these cooperatives have practice membership, with all partners who have out-of-hours responsibilities expected to play a full part in the rota. They each now have additional practices requesting to join but are reluctant to expand their geographical boundaries in order to accommodate new members.

Four of the remaining five cooperatives studied are medium sized, with between 68 and 89 members. Leaddoc and Fourdoc initially had only 45 and 44 members, respectively. Leaddoc's membership has steadily risen to 89. It is unique among those studied in that it now covers all eligible practices within its area. While Fourdoc's membership has also risen, to 84, it has had a less stable career, both gaining and losing members over time. It is unusual in having a substantial number of divided practices, where some partners are members and others are not. This was quite a deliberate policy decision, but does mean that the number of patients being covered varies from day to day.

"One of the main attractions initially was that you didn't have to join. So, say you have got a one-in-four rota within your own practice but only one partner joined the cooperative. On their nights on the rota, the co-op would do this night. The other three partners would just do their night on call in the usual way and it would not affect them whatsoever. You get massive swings in patient numbers and that does cause us trouble." (Fourdoc, GP)

Within Nursedoc's health authority area there are five non-member practices. Three declined to join the initial discussions and two were too far distant to include. In order to reconcile differences of opinion among the practices that did join, it was necessary to institute two separate rotas, one based within its centre and the other maintaining a home-visit-based service. One practice also retains its own rota cover, though all use the services and facilities of the centre.

Fardoc has two non-member practices among 27, plus two GPs whose partners are members but who do not themselves wish to join. Membership has remained fairly constant in both these cooperatives, though of course neither has been in operation for as long as most of the other cooperatives studied.

Countydoc has a potential membership of around 400 GPs but has a commercial deputising service operating from two locations within its borders. They have taken members from it and lost members to it over the course of time. Changes in the subscription rates charged by the deputising service play an important part in these shifts in membership.

It must be said that in most of the cooperatives studied not all original members joined willingly. Pressures were exerted by organisers, practice partners or their own changed circumstances if they remained outside the organisation:

"If necessary, we marketed it fairly aggressively, so that we could hopefully break existing rotas. By taking some people out, [we hoped] the rest would follow suit." (Fardoc, founding GP)

"The other [joint rota] practice were quite determined, so it meant either we joined it or we just looked after our own patients. The thought of doing what would have been a one-in-four rota was not on, so the initial reason for joining was largely negative." (Fardoc, GP)

In the case of Countydoc, spouses were a further source of pressure:

"We invited not only the GPs but also their spouses to introductory meetings ... and we found we got extremely positive responses from the spouses. Even in many cases where the actual GPs weren't that keen on joining cooperatives, the spouses were much more enthusiastic." (Countydoc, founding GP)

Consultation and negotiation with provider and user groups

With the exception of the FHSAs/health authorities and the potential GP members, few other groups were actively involved in the development of the cooperatives studied. Only Nursedoc worked closely with its local A&E department because they planned to share nursing staff. The A&E department manager was a member of the steering group and undertook a feasibility study, prepared costings, organised staffing and contributed to policy development in the later stages of development.

The extent to which the remaining cooperatives consulted or informed other groups depended upon the plans they were seeking to implement. In brief, negotiations over premises, transportation or communications brought other groups into the planning process, but as suppliers rather than advisors or partners. For instance, space for Smalldoc was available within the district general hospital (DGH) building, which also housed the A&E department, and so hospital trust managers and A&E clinicians were involved in negotiations over premises. Countydoc was in discussion with acute trusts, a mental health trust and an ambulance trust in seeking sites for its centres. Fourdoc and Cottdoc were both planning to contract out elements of infrastructure, and so were involved in negotiations with their local ambulance trusts who could provide the services they sought. As Fourdoc has developed, the ambulance trust has advised on the number and location of centres, based on their own extensive knowledge of travel routes, times and distances.

There has also been occasional dialogue between some cooperatives and local A&E departments over cross-referral guidelines, but this has generally been minimal.

While the majority of cooperatives had some contact with their local CHCs during the planning process, it was the general opinion of the CHCs that this was very much in the nature of a public relations rather than a consultation exercise (see *Publicity and public relations*.)

> "I don't think we were there to have an input. I think we were there to be informed what was happening and possibly to comment" (CHC Officer)

Patients were definitely not involved in the planning process. Their views were not sought, and in most cases this was a quite deliberate omission. In the opinion of one CHC officer:

> "GPs are pretty ambivalent about patient participation, if not openly hostile. ... they feel threatened; they feel unsure because it's not an area of work they've got expertise in. They don't understand why it has to be different from the consultation they have with the individual patient." (Smalldoc area, CHC Chief Officer)

Publicity and public relations

In terms of publicity and public relations, it appears that Nursedoc made the greatest efforts to inform the public of planned changes. The health authority handled the media and publicity on their behalf, placing full-page advertisements in the local papers, producing leaflets and posters and holding press briefings. Local parish councils were informed and their concerns resolved by letter. The CHC was informed 3 months before the cooperative went operational and concerns that they raised were addressed.

Cottdoc also launched an advertising campaign with publicity in the local newspapers and on radio, backed with leaflets and posters in surgeries, and took their proposal to the CHC, though as an information rather than a consultation exercise.

In other cooperatives, in-surgery leaflets and posters were the most common form of communication with patients.

Funding

It is impossible to estimate the true costs of setting up the cooperatives studied. While all received some financial support or guarantees from their FHSA/health authority and can point to specific items of expenditure, this takes no account of the time spent by the GPs and FHSA officers who were leading the developments, or indeed the time of other prospective members in debating and considering the options.

In Cottdoc, each prospective member provided an initial sum of £200, giving the group working capital of £4400. Some of the money from their first year's regional grant of £33,000 was used to supplement this. Initial costs were low, as their community hospital bases had adequate clinical facilities and accommodation already in place. It was only necessary to purchase fax machines, computing equipment and a limited amount of mobile clinical equipment. Cars were leased and the use of a message-handling service meant they had little in the way of additional communications equipment to purchase and install.

Smalldoc was similarly placed. Each GP member contributed approximately £300 towards setting-up costs; a contribution of £15,000 from the FHSA made up the remainder of the estimated £24,300 spent on information technology, communications and clinical equipment.

Fardoc and Nursedoc benefited from development funds from their inception. In Nursedoc's case, the health authority seconded one of its officers to facilitate the development and handled publicity

and media relations. The cost of this has not been quantified. Fardoc's health authority provided a nominal sum and assisted with the purchase of equipment. Neither of these two cooperatives was in a position to separate first year running costs from development costs.

Countydoc set up and operated for the first 6 months on health authority development funds outside the general medical services (GMS) budget for which it had tendered in competition with a commercial deputising service. Once the out-of-hours development fund money could be released, this replaced much of the non-GMS funding. They estimated they had spent roughly £100,000 on setting up, all of which was provided by the health authority.

Fourdoc's initial start-up costs were, on paper, extremely low. All practices in the area already had fax machines as a result of an earlier FHSA initiative. The single base from which they began operations was not intended as an emergency centre and thus cost little to equip. GPs used their own clinical equipment, and transportation and communications were sub-contracted. However, it must be borne in mind that the FHSA had set up a £200,000 development fund for cooperatives throughout the county and this fund paid for a full-time project manager and the time of administrative grade employees. All development, organisation and administration was in the hands of the FHSA.

Leaddoc estimated that setting up had cost them around £28,000, £25,000 of which was provided by the FHSA as a development grant. However, there was also a 'hidden' additional input from the FHSA in the form of reimbursement of computer equipment costs and building rent.

Choice of sites

The range and type of premises occupied in the seven cooperatives studied gives some indication of the range of possible sites for emergency centres. They are discussed in greater detail in chapter 5.

With the exception of Cottdoc, whose plans revolved around using their community hospitals as bases, each cooperative had to select from a number of options but were constrained to some extent by what was available.

Most decided against locations within or adjacent to acute trust A&E departments:

> "There was a strategic decision made before we ever got into discussions about premises. We wanted to make a clear distinction between the accident and emergency services and the GP emergency service. We didn't want a situation whereby we would simply take on [their] activity, leaving the accident and emergency department still funded for it but without the work to do." (Nursedoc, founding GP)

Not only were there fears of increasing workload, in some cases there were fears simply that the high profile of a hospital site would somehow encourage demand. As A&E departments were also frequently concerned about the potential impact on their workload of having a part-time primary care emergency centre within or adjacent to them, the decision not to locate there was often mutual.

> "The fear [of the A&E consultant] is that if a treatment centre is there for part of the time, it will attract primary care patients into the A&E department. And then, when the treatment centre is not running, his casualty officers will then have to deal with the primary care cases." (Countydoc, founding GP)

In a curious twist, there were also some areas where A&E departments were on the verge of viability in terms of numbers attending. They feared a **reduction** in attendances if there was also a GP emergency centre available close by, while the GPs feared that the presence of their centre would provide the trust with a reason for removing A&E services. As will be shown later, patients asked to attend a hospital-based centre where A&E facilities are also available may find it difficult to distinguish between the two, with unknown effects on their future attitude towards and use of either.

Locating in the same building as an A&E department does have a number of advantages but many of these can also be claimed for location on a DGH site but well removed from A&E:

> "Probably one of the biggest advantages is that it's just next door to the A&E department which allows a bit of give and take. Being in the hospital, if you are wanting an admission, it's easier to organise when you are physically there. There's reasonable parking and its also a place where everyone locally either knows where it is or it's well signposted." (Smalldoc, GP)

Other advantages cited included 24-hour security and portering, access to clinical facilities and equipment that would not otherwise be available, and the ability to develop greater understanding and working relationships with A&E staff. With goodwill on both sides, cross-referrals can

ensure that patients receive the most appropriate treatment.

Using existing surgeries was frequently a matter of Hobson's choice. They generally lack the space to provide office accommodation for cooperative administrative staff, have poor domestic facilities, particularly for sleeping, and have security systems that are geared to protect a locked building. Providing access for attending patients conflicts with the safety needs of cooperative staff. There is one additional problem: they are closely associated with a single practice and, if they have good facilities and attractive reception and waiting areas, other, less-fortunate practices located nearby may become worried about losing patients to the host practice.

The problems of sharing the same space occupied by other, predominantly daytime users of a building are discussed in more detail in chapter 5.

Purpose-built or converted buildings undoubtedly offer good facilities, but can be a very expensive option. Even when a building has been designed with the needs of a cooperative in mind, if it is shared with other users whose needs must also be taken into account, it can be less than ideal.

The cooperatives based in community hospitals seemed happy with their location and facilities, and pointed to the advantages of having nursing staff around and often access to clinical beds for short-term admissions and observation.

Chapter 4

Results – cooperative structure and organisation

Management and administration

A brief overview of the management and administration of each cooperative appears in *Table 3*. However, these 'broad-brush' outlines of structure fail to convey adequately the considerable differences in management style and membership involvement that exist. To a limited extent, these relate to how the cooperative was originally formed and whether it is split into sectors. Size *per se* does not appear to be a factor. The two smallest cooperatives, for instance, offer considerable contrasts.

Smalldoc has an informal steering group, meeting at 6-weekly intervals, on which all its member practices are represented. The health authority's primary care facilitator and a representative from the acute trust, which provides its accommodation, are also members. Until recently, each GP member of the steering group had specific administrative responsibilities (e.g. finance, the rota, transport). Although they have now appointed an administrative assistant for 10 hours a week, they are still viewed by others as under-managed:

> "They don't have a management army to support them. I mean, they've only just appointed an administrator after 3 years." (Hospital representative)

> "I think the GPs are still doing too much management and administrative work – chasing records and running around after the system. Ten hours a week doesn't seem a lot." (CHC, Chief Officer)

The members, however, consider that this informal management structure allows them considerable influence over the cooperative's affairs.

> "There is a great deal of democracy. On the Committee most practices are represented and if the

TABLE 3 *Overview of management and administration*

	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Countydoc
Managed by	Informal steering group	Company board and administrator	Board of trustees and two elected medical managers	Medical director and elected management board	Management committee and manager	Management committee	Management committee
Composition	Rep from each member practice, health authority primary care facilitator, rep from hospital trust	Three directors, one acting as company secretary	Five GP trustees representing different areas	Two GP reps from each sector, elected at sector meetings	Six GPs, A&E rep, manager	Medical director (chair), secretary and treasurer (GPs), six elected GPs, manager	Chairman and reps from each of the six zones
Meetings	Every 6 weeks	Quarterly, with administrator in attendance	Quarterly, with medical managers in attendance	Every 6–8 weeks	Monthly	Every 6–8 weeks; deputy director of health authority has standing invitation	Every 2 months
Full membership meetings	AGM and EGMs if necessary	AGM	AGM, clinical and educational meetings	AGM and EGMs when problems have arisen; sector meetings	AGM	AGM plus EGMs on important issues	AGM and EGMs on important issues
Administration	Admin assistant employed 10 hours a week to help steering group	0.75 of administrator's time with considerable autonomy	Three full-time admin staff employed, answering to medical managers	Contracted out to local trust	Full-time manager employed	Full-time manager employed	Will be contracted out to local ambulance trust
Formal channels of communication	Practice rep on steering group; AGMs and EGMs	AGM	Rep trustee; newsletter; AGM	Sector meetings; sector rep; AGM/EGMs	AGM	Rep on committee; AGM and EGMs; newsletter; ballots of membership	Zone meetings; zone reps; AGM and EGMs

AGM = Annual General Meeting, EGM = Extraordinary General Meeting

> practice isn't then there's a representative looking after their interests. There's no excuse to feel your views are not being represented; you've only got to speak to your partner who sits on the Committee and your views are straight in. There has always been a great deal of discussion and exchange of ideas." (Smalldoc, GP)

If any major changes are planned, all members are balloted.

In contrast, Cottdoc is a limited company. The three directors who constitute the Board are the original founders. The Board meets quarterly with the three-quarter time administrator in attendance. There is no representation of 'ordinary' members:

> "The doctors were quite happy for us to draw up the plan and we ran everything past them, but basically at the end of 6 months we drew all the figures together, sat down and said 'What changes do we need to make?'. At the end of another 6 months we got together and decided everything was running so well that we'd just have an annual general meeting, and that's how easy it has been." (Cottdoc, founding GP)

The administrator has considerable autonomy in day-to-day decision making.

> "Any decision that **can** be taken by our administrator **is**. All the business about negotiating [contracts], about message handling, procedures, sorting out receptionists – she does the lot." (Cottdoc, founding GP)

While the Cottdoc GPs who were interviewed agreed that the cooperative is running smoothly and management arrangements are "generally speaking, okay", there was far less sense of involvement and influence than was evident in Smalldoc. Nonetheless, Cottdoc despite having two centres has a sense of cohesion.

This contrasts with Fourdoc, which operates to a considerable extent as four separate groups under an external administrative umbrella. Its lack of cohesion appears to stem from the way in which it was formed (a top-down FHSA development), its reliance on a series of external bodies to provide administrative support and, until recently, a lack of clear leadership.

Initially, the FHSA undertook all management tasks, including negotiating and holding contracts on Fourdoc's behalf as it has no legal status. When the FHSA was (sub)merged with the health authority to form a commission:

> "That sort of 'hands-on' management was clearly not appropriate for a streamlined health commission, which is in commissioning and performance management; so there really was an imperative for us to disengage." (Fourdoc area, Health Authority Officer)

Management responsibility passed to a small acute trust that already had an uncertain future. The trust saw itself as a provider of:

> "basically what I would prefer to call administrative support services – not quite the same as management." (Trust Officer)

Although Fourdoc has a management board which meets at 6- to 8-weekly intervals and comprises two GP representatives from each sector, it has historically looked to the FHSA/health authority for organisational and management support. The change to the acute trust has effectively created a management void:

> "What they [the Trust] have ended up doing is very much sort of record keeping – just straightforward, non-challenging admin. What they haven't done is any prospective work: they have not attempted to negotiate [contracts], they have not got involved in developing the co-op, none of that at all." (Fourdoc, Medical Director)

The result of this is that many 'ordinary' members do not feel involved and take little interest in the cooperative's affairs outside their own sector:

> "It's just a matter of 'as long as the driver turns up and I turn up', that's all that matters to me." (Fourdoc, GP)

> "[At sector meetings] we generally discuss things and then one or two of the more powerful GPs say what's going to happen." (Fourdoc, GP)

It is generally accepted that management has been "shambolic" in the past and some sectors have GP members who would like their sector to withdraw from the wider organisation and set up on their own. The recent election of a medical director with a clear mandate to lead and develop the cooperative will hopefully hold it together while a replacement for the failing trust is found.

Countydoc has a similar sector structure but is a limited company, overseen by a management committee which meets every 2 months. One of the founding GPs chairs the committee, which includes a representative from each sector. Despite this representation, many ordinary GP members saw the decision-making process as somewhat remote (though perhaps necessarily so).

> "I felt that the organisation was not a very open structure – rather closed, almost as though run by an elite. I'm sure if I really wanted to have more involvement in the management I could find myself closer to it, but because it is such a large cooperative with over 150 doctors, and because you have to guarantee the thing does happen every day, perhaps it is better that it is run that way." (Countydoc, GP)

Regular meetings within each sector have now been inaugurated to address this problem and provide members with greater opportunities to influence the cooperative at a local level.

Until recently, Countydoc undertook its own management and administrative functions, had a single operations control base and employed its own support staff. However, thanks to a series of financial problems and key staff changes, it has now contracted out its administration to an ambulance trust. Its central operations base is to be closed and its staff are being transferred to the trust's payroll. It may thus find itself susceptible to the same problems experienced by Fourdoc.

The three cooperatives that have not been discussed in any detail are Leaddoc, Fardoc and Nursedoc. Leaddoc and Fardoc are limited companies. The former has a board of five GP trustees representing different geographical areas within the cooperative's borders, plus two medical managers who report to the Board. The latter has a management committee chaired by a medical director with six 'ordinary' GP members elected at the AGM. GPs act as secretary and treasurer. Each cooperative employs its own administrative and support staff, including drivers and telephone operators/receptionists. In both cooperatives, there are a number of channels through which individual members can make their views known and a regular newsletter is produced. Neither seems to be experiencing any particular problems and members expressed a high degree of satisfaction with the way in which their cooperatives are run.

> "I have to say 'excellent'. It's been brilliant. When I compare it with other, similar cooperatives locally, I think we have a brilliant system. It runs extremely smoothly and the doctors on the whole find it extremely good." (Leaddoc, GP)

> "I've been very impressed with the Leaddoc administration. We get excellent communication from them; we have the opportunity to say what we want." (Leaddoc, GP)

Fardoc members see themselves as a true cooperative with ample opportunity for members to voice their opinions.

> "I think it's pretty good. There's a committee, which we elect, there's a newsletter to which we are invited to contribute, and we are invited to look at the minutes. So it's pretty open. We have an annual general meeting and we have had a couple of extra meetings open to all in the year and a half we've been going." (Fardoc, GP)

Nursedoc had been in operation for only a few of months at the time the fieldwork was conducted. Although they have established their management structures, and lines of accountability to the health authority, which monitors their activities, and lines of communication with members, the management process is still taking shape and it would be premature to make any judgement as to its effectiveness and impact. At the moment, members hold conflicting opinions, acknowledging that there are channels of communication but sometimes feeling the need for more detailed knowledge of the cooperative's operation and finances in order to use them effectively to influence future directions.

Rota organisation and shifts

Organising the rota is possibly the most contentious aspect of cooperative management from the viewpoint of members, and certainly one of the most frustrating and difficult tasks for administrators and managers. There are various methods of apportioning shifts and drawing up rotas and examples of most of these were available in the cooperatives studied.

An initial, broad division must be made between those cooperatives that make payments to members based on the actual number of shifts they undertake and those that do not. In the former, individual GPs indicate their willingness and availability to undertake shifts and their responses are collated and translated into a rota. This can be classed as a bottom-up approach.

The bottom-up approach has a number of strengths and weaknesses. From the viewpoint of individual members, it offers a considerable degree of flexibility, including the ability to set a preferred balance between income, membership costs and time commitments. From an organiser's viewpoint, the less unpopular shifts may be over-subscribed and the more unpopular under-subscribed. Some members may receive fewer shifts of the type they wanted (and hence less income to offset subscription costs), while the organiser may have to persuade some GPs to take on commitments they did not want, possibly by offering greater financial rewards.

> "Generally speaking, we don't have a problem in the rural areas where we have fewer GPs. This is for historical reasons For example, we used to be on a one-in-two rota; for us to work one shift a week is absolute luxury. Whereas [the urban doctors] who've been used to using the deputising service, for them to do three sessions a month is quite a lot to ask." (Countydoc, leading GP)

> "We have 89 doctors to try to keep happy. Sometimes they don't get what they want, but generally, they actually do get what they want. I don't know how it all comes together, but it does in the end." (Leaddoc, Administrator)

> "We don't want to coerce people into working and the way to make them feel they want to work is to increase the price. The payments sometimes have to be increased at difficult times, like Christmas. Some cooperatives insist that you work three or four times a month, but we let people decide; find their own level and let the commercial rewards sort it out." (Leaddoc, GP Director)

Shift payment systems can be highly complex. In Countydoc, for example, there are eight different levels of shift payments, ranging from £60 for a 3-hour weekday evening session working in a centre to £225 for an overnight bank holiday session in a car. The number of GPs available to undertake shifts within each sector also varies considerably (between 18 and 38) providing different opportunities to recover membership costs through shift payments.

In shift payment systems, it can fall to the administrator to find a substitute for GPs who cannot meet their agreed shift commitments, rather than GPs taking the responsibility for swapping shifts with colleagues. In Leaddoc, for instance, notices offering 'late-availability' shifts are posted at the centre and administrators will also telephone individual members who might be persuaded to fill the shift if no volunteers are forthcoming.

In cooperatives where there are no shift payments, shifts may be allocated on an individual GP or practice basis. Though allocation by practices is by far the more common system, allocation by individual members does happen (for instance in one of Fourdoc's sectors). The perceived advantage of allocation by practices rather than individuals is that partners then have some flexibility in what shifts they cover on the practice's behalf. It also allows practices to make internal financial adjustments when some partners do less out-of-hours work than others. However, in practices with a number of part-time GPs without out-of-hours responsibilities, the remaining GPs must shoulder a proportionately greater burden than other members.

Shifts are commonly **graded** to reflect their relative unpopularity. (It would be a mistake to assume that any are popular!) Practices or GPs are then expected to undertake a proportion of each grade of shift.

> "We divide it into different types of shifts, so evenings, weekends, nights and bank holidays. I have always done the rota [for our practice]. It's very complicated with the small number of shifts to get it mathematically right; we divide it as equally as we can." (Fardoc, GP)

Drawing up the rota can be a top-down or bottom-up exercise. It may be done by the administrator on the basis of general preferences made known by member practices. It may be done at a rota meeting where all members or a representative from each practice sit down together to 'thrash it out'. It may be done on the basis of a circulated 'availability' chart. Examples of all these types of organisation are available within the cooperatives studied.

> "[At rota meetings] each person in turn chooses one or two shifts and the shifts are graded, a, b, c, d and so on, early evening shift midweek to weekend late shifts. You each get a turn at having some of those, and then it goes round the opposite way and it gets quite complex, but it will work. And, at the end of the day, you can swap a shift." (Fourdoc, Sector 1 GP)

Where **availability forms** are circulated, it is common for single-handed GPs to be given special consideration. They tend to receive the forms first, or at least early in the circulation process, because their practice allocation is also effectively a personal allocation, giving them little flexibility in their commitments. Again, commonly, the order in which they are then sent to larger practices is varied, so that the same practices do not always receive it last.

> "I did have one very big gripe on the last [circulated form], because quite a number of GPs don't like doing a double shift from 7 p.m. to 7 a.m., so there were very few double shifts left. I much prefer doing a double shift. I'm not going to get terribly worried though because it's [only] happened this time." (Fourdoc, Sector 3 GP)

The number of shifts to be worked by members or practices may be calculated on list size, number of partners, actual out-of-hours workload generated or some combination of these. Though none of the cooperatives studied currently uses a workload system, one does make financial adjustments to membership subscriptions on this basis. List size is the commonest method of calculating how many shifts each GP or practice should fill. Most GPs believe this to be a fair system, but it is not universally accepted.

> "My list size is bigger than anybody else's, so that I'm doing one shift in 20, which is more than anybody else. You would have thought with 25 or more people to do sessions, it should be possible to make it so that nobody has to do more than one [in 25]." (Cottdoc, GP)

One cooperative does simply divide the number of shifts by the number of GPs available to undertake them, and another has a more complex system of balancing list size and partnership size.

> "We wanted to take some recognition of list sizes because we had one or two practices with really much higher list sizes than the majority and because we didn't want to get into a billing system for the use patients make. We instead opted for a system that really made some compromise with the number of partners in a practice." (Nursedoc, founding GP)

Nursedoc has a complicated system of shift assignment because it runs two rotas, one of which involves pairing GPs (see *Recruitment of GPs*). For the 'red' rota:

> "The rota is constructed in such a way that during one full cycle every one of 23 pairings will appear against every one of nine duties. And what we do for bank holidays is that we look at it on a yearly basis and try to achieve the same balance between the practices as exists for the rota as a whole." (Nursedoc, founding GP)

The three large practices in the 'green' rota negotiate their own arrangements between themselves. A fourth member practice retains its own rota.

In cooperatives making no shift payments, it is generally up to the individual member to take the responsibility for organising a substitute if he or she is unable to fulfil a shift commitment. Whatever organisation system is in place, there is often a great deal of later swapping of shifts and some payments from one member to another to off-load unwanted commitments.

> "We tend to swap among ourselves to try to get the best. For example, tonight I'm on from 7 p.m. till 11.30 p.m., then on Saturday lunchtime, then on Sunday morning and Sunday night. You get most of it done for the month, and I won't have any shifts again for September. All done!" (Cottdoc, GP)

> "I like to do shifts for other people as well. They have 'sold' their shifts to me via a private arrangement. So I do rather more perhaps than many other people do." (Fardoc, GP)

Within Countydoc, for instance, it is common for rural sector GPs to take on some of the unwanted commitments of urban sector members, thus effectively providing cover outside their own area.

> "Our 'zone' actually has no problems filling its spaces. [The adjacent urban zone] offers doctors from our area [slots] because their doctors don't want to do the sessions. That irritates me; they are looking at it as a cheap deputising service rather than a cooperative." (Countydoc, GP)

Shift swapping can reduce administrators to despair, however:

> "I know what their preferences are because I like them to be reasonably happy, but all that happens is when the rota comes out, they all swap anyway, so I don't know why I bother really." (Cottdoc, Administrator)

In every non-payment system, there are always members who are unhappy about some aspect of rota organisation. Given that the process is a source of such aggravation, it is surprising that there are wide variations in the frequency with which it is undertaken. Some cooperatives set a monthly rota, beginning the process as much as 3 months in advance. For them, the rota is a regular part of their administrative workload. Others draw up rotas covering 3, 6 or even 12 months. The use of **spreadsheet** software packages to roll over rotas is of some help, but they are not sophisticated enough to recognise the significance of specific dates and must be carefully checked and modified so that bank holiday commitments do not fall too often on the same practice.

Because of variations in levels of demand and the number of emergency centres to be covered, it follows that there is some variation between cooperatives in the average rota commitment per month per member. Fardoc members, for instance, average only 1.5 shifts per month, while Cottdoc members average 4.2. While Nursedoc 'red' rota members appear to be very favourable placed, with 1.6 shifts per month, their shifts can be over 14 hours in length, compared with a normal maximum of 9 hours. Variations between individual members within cooperatives can be even wider. This is primarily a product of basing commitments on list size, but may be compounded by part-time partners with no out-of-hours responsibilities.

The number of GPs on duty at each centre produces considerable variation in the number of patients per GP being covered. Here, there may be cause for concern. Across cooperatives, a single GP may be providing night-time cover for as few as 33,000 or as many as 180,000 patients, though there is a second GP on standby at home for the cooperative covering 180,000. While most cooperatives insist that their members stay at the

centre overnight, Cottdoc and Nursedoc allow doctors some leeway. In Cottdoc's case, GPs living near the centre may choose to be bleeped at home by the message-handling service. Nursedoc allows the night-time pairing of red rota GPs to make their own arrangements, for instance splitting their 14½-hour shift so that each is within the centre for half that period or designating a second-on-call available at times of heavy workload.

GPs are not, of course, the only people on duty at the centres, and where staff are employed, administrators will also be in charge of preparing **their** rotas. However, it is common for reception, nursing and driving staff to work a standard pattern of hours and shifts, so that the only adjustments required will be for holidays and periods of sickness absence. Where services are contracted out, for instance in the case of Fourdoc and Smalldoc's drivers, the rota will be the responsibility of their employers. Rota and shift arrangements for individual cooperatives are summarised in *Table 4*.

Finances

Operating costs

The cooperatives studied appear to have wildly different operating costs, overall, on a per-member basis and on a per 1000 patients covered basis. There are also wide variations in the actual cost of membership to individual GPs. While some of the apparent difference relates to the cooperatives' policies on shift payments for on-duty GPs, even when this is taken into account, substantial differences remain.

Four of the cooperatives make no payments for shifts and thus their operating costs appear to be very low in comparison with the three cooperatives who do make shift payments. Those three in turn set shift payments at quite different levels and treat them differently for accounting purposes. This again results in perceived variations. The argument about whether shift payments should or should not be made is an interesting one. Their absence reduces the complexity of financial administration,

TABLE 4 *Overview of rota and shift arrangements*

	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Countydoc
Shift payments	None	None	Four tariffs with occasional premiums	Paper transaction only	None	None	Eight tariffs
Rota organisation	Top-down: administrator assigns shifts to practices	Top-down: administrator assigns shifts to practices	Bottom-up: each GP completes blank availability sheet each month. Administrator collates and compiles rota	Bottom-up. *Sector 1:* rota meeting (all GPs) *Sector 2:* rota meeting (practice reps) *Sectors 3 & 4:* rota form circulated	*Red* rota: top-down: administrator assigns shifts and pairs GPs *Green* rota: bottom-up by mutual agreement between practices	Top-down: manager assigns shifts to practices	Bottom-up: each GP sent blank availability sheet monthly (3 months in advance); administrator collates and compiles rota for each zone
Allocation system	To practices, on basis of list size	To practices, on basis of list size	N/A	To individuals and practices, on numerical division of shifts to be covered by GPs available	To practices, on basis of list size and number of partners	To practices, on basis of list size	Voluntary, but with target expectations (2–3 shifts per month)
Number of shifts	Average of 3.5 shifts per month	Average of 4.2 shifts and one standby per month	At discretion of member (average = 1.8 + 1 standby per month)	Average of 3.2 shifts per month (sectors vary)	*Red* rota: average of 1.6 (double) shifts per month *Green* rota: average 1.8 (double) shifts per month (weekend shift = Saturday noon to Monday morning)	Average of 1.5 shifts per month, but with wide range	At discretion of member; average = 2.7 but zones vary, with rural zones having less shifts to fill
Rota period	12 months	6 months	1 month	*Sector 1:* 6 months *Sector 2:* 3 months *Sectors 3 & 4:* 1 month	Cycle of GP pairings and shift types	12 months, but issued monthly in advance	1 month
Night patient: GP ratio	51,000:1	45,000:1	180,000:1	Average per sector 45,000:1	*Red* rota: 43,500:1 *Green* rota: 33,000:1; individual practice: 2000:1	120,000:1	Zones vary from 31,000:1 to 65,000:1

N/A, not applicable

but relies upon each member of the cooperative contributing equally to the duty rota. In small cooperatives this is essential to their operation in any event.

> "Systems where GPs get paid for sessions are just taking money from Peter to pay Paul, and that seemed ridiculous, so we used the York model: sort of ground zero. You don't get paid money and that limits the amount of money you have to find [to put into the cooperative] and makes the administration a lot easier." (Smalldoc, GP)

In one case, complex arrangements for shift payments had actually been dropped.

> "We worked out how much it would cost to run all the shifts for a month, then if you had 10% of the patients, you paid in 10% of the money, the thing being that you would probably do 10% of the shifts and you would get it back. Once the doctors realised that the co-op did work and it was fair we got rid of the money." (Cottdoc, Administrator)

In Fourdoc, while shift payments are nominally made, they are very much a paper transaction. Regardless of their actual rota commitments, each member is 'credited' with three **low-tariff** shifts and eight **high-tariff** shifts per quarter. They must then pay into their account at the cooperative a quarterly sum reflecting the shortfall between the cooperatives income and expenses. The rationale is that:

> "... otherwise you are effectively netting out your income and expenses. Just because they are equivalent, that doesn't mean they don't exist." (Fourdoc, Medical Director)

This cooperative has either tried and abandoned or at least considered a number of different systems: payments based on the actual number of shifts worked (rotas were over-subscribed by GPs seeking to reduce net costs); charging practices for each of their patients seen ("an administrative nightmare") or introducing higher payments for unpopular shifts, e.g. bank holidays:

> "The trouble then is it becomes a self-inflating cost and the doctors would just end up paying more and more. We felt that was just going to lead us into trouble." (Fourdoc, Medical Director)

One of the cooperatives has already experienced this. Leaddoc, which has four tariffs for shifts, has nonetheless had to add a premium in order to fill its rota on occasions, for instance over Christmas and New Year. Rota commitments are entirely voluntary and members can therefore elect to simply pay the cooperative's advance membership fee in return for no commitments or earn much of it back from shift payment. Costs of membership represent an allowable practice expense for revenue purposes.

Countydoc, with its eight tariffs and variable number of GPs per sector, also has variable membership subscriptions. Because the service is seen to be more cost-effective in the two urban sectors, GPs in these sectors felt that they were subsidising the rural sectors. Furthermore, the health authority felt that a uniformly high subscription made urban membership less attractive and gave the competing commercial deputising service an unfair advantage. Rural sector members now pay a higher subscription.

With the exception of shift payments, the major items of recurrent expenditure likely to be faced by cooperatives can be divided broadly into four categories (*Figure 1*):

- directly employed staff, professional fees and sessional payments
- transportation
- communications
- centre and office accommodation.

Minor costs will include computer software, drugs and other medical supplies, and stationery. Supplies of drugs for immediately necessary treatment do not represent a major source of expenditure because cooperatives rely to a large extent on drug company promotional packs. These are, of course, branded and expensive.

In fact, many cooperatives choose to concentrate their resources within particular headings, at the expense of other headings. Thus, for instance, Fourdoc invests heavily in transportation and communication, runs four centres, but has no directly employed staff. Cottdoc's major expenditure is on communications, with little spent on transportation or staff and nothing spent on premises. Nursedoc invests heavily in staff, but has no transportation costs, minimal communication costs and low rental for their premises.

In the seven cooperatives studied, expenditure on directly-employed staff ranged from zero to £203,000 per annum. Four of the cooperatives had low staff costs (£0 to £20,000) and three had high staff costs (£97,000 to £203,000). None occupied the middle ground. Of the four cooperatives with low staff costs, three contract out their transportation, with cars and drivers provided by a local ambulance trust. Two of these also contract out their communications, one to the ambulance trust and one recently changing from an ambulance

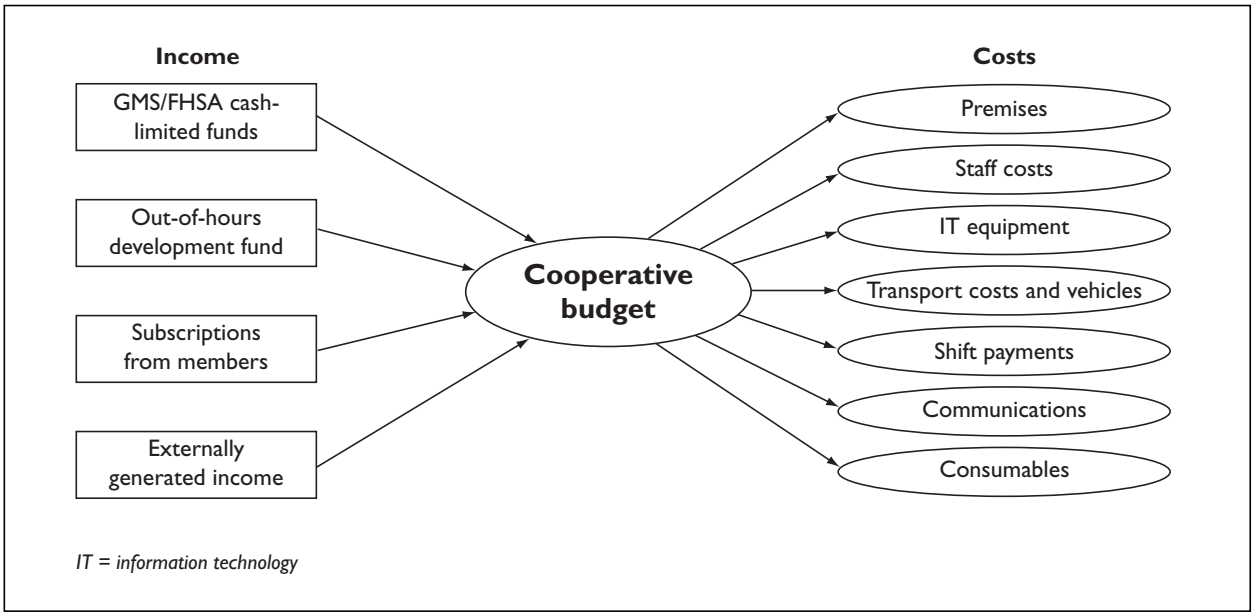

FIGURE 1 *Operating costs and sources of income*

trust to a commercial message-handling service. The third initially leased cars but gave these up when they received development funds, which specifically preclude the cost of cars. They do however sub-contract their communications to a message-handling service. Of the three with high direct employment costs, two employ both receptionists/telephonists and drivers and the third employs nurse triage staff and receptionists/telephonists. Part of Leaddoc's staff costs are met from the local health authority staff budget.

Most of the cooperatives have secured premises for use as emergency centres on very favourable terms, either by sharing existing facilities or through the goodwill of health authorities and trusts (sometimes both). The most favourably placed are Cottdoc, which uses the two community hospitals already covered by its members on a rent-free agreement, and Countydoc, which pays no rental for five of its six centres. Nursedoc and Smalldoc have both negotiated with local acute trusts to use space which would otherwise be occupied only during weekdays. Their rentals are low (£1560 and £2100, respectively). Fourdocs four centres have variable costs, but total £16,700 per annum.

Fardoc and Leaddoc have higher costs to meet, despite sharing facilities with other groups. Fardoc pays in excess of £8500 for shared accommodation in a community health services clinic, while Leaddoc has the highest annual outlay of around £21,500, in part met by rent allowances.

Operating costs are summarised in *Table 5*.

Sources of income

All the cooperatives studied are now receiving grants from the 1995 out-of-hours development fund. In every case, this is to the maximum allowable in their area (between £1350 and £1600 per GP member). The more interesting questions are thus how they were funded prior to the development fund, what proportion of their operating costs are met by the fund, and how is any shortfall made up.

The three most recently formed cooperatives, Fardoc, Countydoc and Nursedoc, had guarantees of development fund income from their inception. Fardoc and Countydocs plans were already at an advanced stage when details of the fund were announced. Nursedoc was developed on the strength of its availability. Cottdoc obtained a 3-year development grant from its regional health authority. This not only covered its operational costs but also provided each GP member with a small subsidy to offset their loss of night-visit fee income from joining a rota of more than ten GPs. This grant was withdrawn when the development fund was set up.

Smalldoc was entirely supported by its membership subscriptions for its first 2 years of operation. Leaddoc was also originally dependent on membership subscriptions, but a highly supportive FHSA did everything in its power to minimise operational costs and reduce the negative impact on members' income. For instance, they reimbursed staff costs to the maximum permitted level, met computer costs and treated the centre as a branch surgery eligible for rent and rate subsidies.

TABLE 5 *Overview of finances*

	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Countydoc
Overall operating cost	£34,500	£40,000	£610,000	£737,700 p.a.	£105,600 p.a.	£181,600	£1,432,000
Cost per member	£1080	£1540	£6850	£8780 p.a.	£1550 p.a.	£2490	£8275
Cost per 1000 patients	£675	£890	£3400	£4100 plus	£850	£1510	£3600
Shift payments	None	Abandoned	Four tariffs between £130 and £250; premiums; £296,000	Two tariffs of £90 and £135; standard number 'credited' to members quarterly; £420,000 p.a.	None	None	On eight-point tariff (£956,000)
Directly employed staff	< £10,000	< £20,000	c. £203,000	£0	c. £97,000 p.a.	c. £150,000	Transferred to ambulance trust (£134,000)
Transportation	Car and night-time driver sub-contracted £20,000	No dedicated transport £0	Leased cars £27,000 and directly employed drivers	Cars and drivers sub-contracted; (total of £230,000 p.a. with communications)	No dedicated transport £0	Leased cars and other transport costs £12,750; directly employed drivers	Provided by ambulance trust (£217,000)
Communications	Directly employed evening telephonist + £2300	Message-handling sub-contracted £20,000	Directly employed telephonists/ receptionists + £10,000	Message-handling sub-contracted; (total of £230,000 p.a. with transportation)	Directly employed nurses and telephonists + £2100	Directly employed receptionists/ telephonists + £4200	Provided by ambulance trust (£37,000)
Premises	Acute trust property, £2100	Community hospitals £0	Purpose-built; c. £21,500	Two health centres; private hospital and purpose-designed centre £16,700 p.a.	Acute trust property £1560	Community health clinic £8625	Two community hospitals, two acute trust DGHs and ambulance station are rent free. Health centre £2500
Other costs			Professional fees c. £14,000	Administration sub-contracted £11,000			£88,000 p.a. including fee for management services
Income	Development fund	Development fund	Development fund; health authority staff budget; subscriptions; answering service	Development fund; subscriptions; rent and rate rebates	Development fund; subscriptions	Development fund; subscriptions; answering service	Development fund; health authority subsidy; subscriptions; telephone answering service
Subscription level	£0	£0	c. £1100 before shift payments	Currently c. £2300 after credits for shift work	£50 p.a.	£1200 p.a.	Average £6000 p.a. (rural weighting) before shift payments

Fourdoc had the most complex financial arrangements, with a substantial FHSA development fund supporting them, much of which was then 'spent' by the FHSA on the salaries of a development officer and administrative staff. Members' subscriptions were subsidised and rents and rates reimbursed, but subscriptions were very high and fluctuated for reasons that were unclear to the members.

The current situation is that the development fund meets all the costs of the two smallest cooperatives, Smalldoc and Cottdoc. It meets around 90% of Nursedoc's and around 50% of Fardoc's costs. For Fourdoc, Leaddoc and Countydoc, with their systems of shift payments, it meets a considerably smaller proportion: 15% of Fourdoc (35% if shift payments are excluded); 20% of Leaddoc (40% if shift payments are excluded); and 20% of Countydoc (57% if shift payments are excluded). Members' subscriptions generally provide the bulk of any shortfall, though in some instances rent and rate rebates or health authority grants, plus marketing the cooperative's answering service, bring in additional income.

Sources of income are summarised in *Table 5*.

Costs to individual members

Members of the two small cooperatives now financed entirely by development funds lose relatively little from cooperative membership. For Smalldoc, development funds have enabled them to appoint a part-time administrator, thus releasing steering group members from many administrative responsibilities. They are also planning to upgrade their centre accommodation. Prior to receiving development funds, members paid £250 a quarter. Now, there is no regular subscription fee and only the possibility of small, *ad hoc* payments if a GP's night-visit fee income (and hence the demands their patients are making on the cooperative) exceeds the average. Cottdoc members have never made a direct financial contribution.

For Nursedoc members, the annual subscription is just £50, and has been so since the cooperative's inception. Fardoc members contribute around £1200 each.

The costs of membership in Leaddoc and Countydoc vary, dependent upon members' commitments to the rota and, in Countydoc's case, whether their sector is urban or rural. For GPs who do little or no rota work, their net financial input could reach £6000, though in practice there are very few GPs prepared to accept such a high cost. GPs who are prepared to do more than the average number of shifts and to take less popular but better paid shifts can make a **profit**, but most choose to work a moderate number to keep their membership costs low.

> "A lot of money has to be paid into the cooperative, but I earn a lot of it back, so its fairly even. I may be slightly worse off, but then, I work less." (Leaddoc, GP)

> "I don't want to spend money on the system. I can't say I'm happy with that, but the alternative is less appealing – going back to the old system and being on call myself. I couldn't even envisage doing that." (Leaddoc, GP)

While Countydoc has the highest average gross costs of membership, the amount they pay to members for shifts almost equals the amount collected from them in subscriptions. Fourdoc has the highest average **net** cost. Members currently contribute around £2300 per annum after credits for shift work. This figure has been subject to wide variations over time, from around £1800 to £4000. A number of factors have contributed to these swings, including fluctuations in income from grants and development funds; fluctuations in costs, for instance when new centres were established; and fluctuations in membership numbers. Part of Fourdoc's problem appears to be that it was a top-down development, and that administration has always been carried out by outside agencies. Until recently, there has been no-one with a clear leadership role or time to devote to financial affairs. Finances are a source of great confusion and unhappiness among members and play a major role in causing fluctuations in membership, which then further exacerbate the problem.

> "To actually run it costs us personally vast sums of money – last year it was £3700. That was a bad patch. There's a chap just now had to pull out because he can't afford it. To actually be faced with paying to provide a service to the public is a joke, really, a bad joke." (Fourdoc, GP)

Members of all four cooperatives that rely heavily on subscriptions from individual GPs believe that they should not be required to lose income to support an out-of-hours system that makes more rational use of GPs' time:

> "It should be a no cost thing – we shouldn't actually pay money for it. I think the Government or Health Authority should be paying for it." (Fourdoc, GP)

> "It's cheaper to the government to have a cooperative running than the old system. They don't like to admit it, but before the night fees structure changed not so long ago, we reckon we've saved the Health Authority, with our cooperative alone, about £50,000, possibly £70,000 in night fees that they would otherwise have paid at the higher rate. We think [the Government] should pay for the whole service, mind you. We don't see why doctors should have to subsidise it at all." (Leaddoc, founder)

An overview of each cooperatives operating costs, income sources and membership subscriptions is shown in *Table 5*.

Employment of staff

The extent to which the cooperatives employ their own staff varies widely, as breakdowns of their finances and discussions of their management structures have already indicated. Fourdoc directly employs no-one; Smalldoc and Cottdoc employ a part-time administrator/administrative assistant and have a small amount of reception cover. Fardoc and Leaddoc employ managers or administrators, telephone operators-cum-receptionists and drivers. Until recently, Countydoc also employed administrators, telephone operators and drivers but has now moved to a position where it directly employs no-one. Nursedoc employs a manager, nurses and

care assistants who also act as telephone operators and receptionists.

The purpose of this section is not to describe the numbers, roles and responsibilities of support staff, but rather to explore the need for support and the advantages and disadvantages of direct employment.

The need for drivers was a matter of disagreement between the GPs interviewed. Only one co-operative, Nursedoc, has never had drivers. Their employment was considered during the planning process and prospective members were enthusiastic about the idea. In the end, the estimated cost (around £30,000 a year) and the expectation that home visiting would decline significantly swayed the organisers.

Cottdoc did originally have two vehicles and night-shift drivers. They were seen as an important asset in the early days when GPs were having difficulty finding their way around the very rural area served by the cooperative. They became less important over time, though still appreciated for the additional security they offered. When Cottdoc's grant was replaced with development fund money, which specifically excludes expenditure on vehicles, the members were not prepared to personally fund them and thus lost cars and drivers. While some members felt that the cars and drivers had become an unnecessary expense, others deeply resented their loss. The organisers felt the cars were more important than the drivers:

> "To look after 40,000 patients, it didn't seem a big investment and yet [the Health Authority] were willing to let us have more mobile phones, willing to have drug cupboards, willing to build a new primary care emergency centre in [a nearby large town]. In rural areas what we really wanted was to make sure the kit was always there, well strapped in. We always carried resuscitation kits and the lot ... we are police surgeons and also go to road traffic accidents. ... I'm aggrieved." (Cottdoc, founding GP)

For a time, some of the GPs, particularly the women, employed driver/escorts from their own pockets, but escorts have now been deemed a permissible use of the development fund and they receive financial support.

Of the remaining five cooperatives, two contract out their transportation and three lease cars and employ drivers directly.

Smalldoc has a 'minimal' contract – one car and a night-time driver (11.00 p.m. to 8.00 a.m.) who the female GPs sometimes choose to pay personally for evening cover. Fourdoc has more extensive cover: a car and driver at each of its centres throughout their operating hours. Both cooperatives have contracts with their local ambulance trusts (Countydoc will be turning to this system). The advantages of having contract drivers are that there are no payroll functions to undertake, no recruitment or personnel issues to deal with and no rotas to be organised. In the event of holidays or sickness leave, the problem of finding a replacement driver lies with the trust, not the cooperative.

There are, however, hidden costs. The cooperative has no control over who is employed or when. Drivers must follow their employers' rules and may be less flexible in the range of duties they perform. They will owe their first loyalty elsewhere, even though they may feel isolated from their employer and more closely identified with the cooperative.

> "It's almost like being a lighthouse keeper. I do my set of shifts and disappear, [another driver] does his and disappears. We see each other at weekends when we do a cross over. We leave each other notes. It's lonely because of the command system; we don't have anyone to go to if we have got a problem, though the relationship on a day-to-day basis with the doctors is good." (Fourdoc, Driver)

For both Smalldoc, with only limited evening reception cover and Fourdoc, with no reception cover at all, the drivers provide some continuity which would otherwise be lacking. It is easy to forget that a GP may spend 5 hours on duty at the centre and not return again until 10 days later.

> "The drivers get to know the addresses. They get to know which houses and people they go to regularly, so they have the inside knowledge of the patients that we don't necessarily have." (Smalldoc, GP)

Countydoc, Fardoc and Leaddoc all employ their own drivers, and Leaddoc also employs a transport manager who is responsible for recruiting them and organising their rota. All appear happy with their current arrangements. Fardoc drivers help with telephone and reception duties and many have been trained to use the computer system. They are drawn from a wide variety of backgrounds, for instance a driving instructor, an ex-ambulance driver and a minister of religion. Leaddoc's drivers include a number of ambulance men with paramedical training who can offer support to GPs in an emergency. Countydoc's drivers also cover reception duties.

The advantages quoted for having drivers are similar to those quoted by the GPs in the cooperatives that have contract drivers:

- they provide added security for GP and car, particularly in difficult neighbourhoods and at night
- they provide emotional support
- they save time
- they relieve GPs of the strain of driving and trying to locate obscure addresses.

> "It's a real luxury having somebody to drive you there with covering a big area, sometimes it takes a long time to get round. Some of them [the drivers] are good at finding places and that can make 10–15 minutes' difference. Having done calls on my own at 2 o'clock in the morning, getting out of the car with my drugs and things, even in a nice area like this, I feel very much supported by the drivers." (Fardoc, GP)

> "You can say to the driver: 'What an idiot this person is'... you can get rid of all the stress, because you've got another person there; he halves it." (Smalldoc, GP)

While ambulance services accept that it makes a great deal of sense from the cooperatives' viewpoint to employ off-duty ambulance men, they are concerned to ensure that this does not create a conflict of loyalties and does not result in over-tired drivers.

Much the same arguments advanced for contracting out transport can be advanced for contracting out telephone answering and message handling, with the added complication of possibly forfeiting staff at centres who could also act as receptionists if a message-handling service is employed. Without reception staff, centres must close when the GPs are out on home visits. Fourdoc and Cottdoc have contracts with message-handling services. In Cottdoc's case, their community hospital bases mean that hospital staff are able to receive patients. In Fourdoc's case, centres must close. Countydoc handles its own calls but does so from a central operations base. With only limited reception cover at only some of its centres, four open only for brief periods at weekends. For small or multicentre cooperatives, employing telephone/reception staff to cover over 100 hours per week per centre may not be a realistic option. Further discussion of the impact on patients of different systems of call handling appears in chapter 5, *Opening hours and access arrangements.*

Administration and management arrangements also constrain cooperatives' choices. Without a management infrastructure, it is virtually impossible to directly employ staff, so that support services must be contracted out or foregone.

Chapter 5

Results – the emergency centres

Type and location of premises

The general problems associated with choosing suitable premises for an emergency centre have been outlined in chapter 3. The purpose of this section is to describe the range, type and the locations of premises occupied by the seven cooperatives, and discuss their relative advantages and disadvantages.

The fact that there is wide variation in type and location of premises between the seven cooperative sites gives some indication of how difficult it is to choose a site. The cooperatives have 16 emergency centres in total. They represent:

- five community hospitals, one of which is a non-NHS facility and four of which have casualty or minor injuries units
- four acute trust hospital premises, two sharing the same location as A&E departments
- two health centres from which a member practice operates on weekdays
- two purpose-built or purpose-converted buildings, one of which also contains a general practice and office accommodation for other GP and local government groups
- two health authority community health services clinics
- one ambulance station.

Emergency centres originally based in a nursing home, a psychiatric hospital and a factory have since relocated to more suitable accommodation.

The views of GPs and other health professionals varied widely within and between cooperatives, depending on the premises occupied by the emergency centres. The cooperatives with centres based in community hospitals seemed happy with their location and facilities and pointed to the advantages of having additional equipment and often access to clinical beds for short-term admissions and observation. Hospital nursing staff were available to assist GPs in an emergency, and the nurses sometimes helped with reception duties during busy periods. Similarly, the hospitals gained from having cooperative GPs on the premises, acting as casualty officers when needed and providing reassurance and back-up for nursing staff for both casualty and inpatient cases.

A further advantage cited by the community hospital site in the Fourdoc cooperative, was that the patients were beginning to feel a sense of ownership, as the site brought in patients from many surrounding practices.

> "It has patients from other practices coming to see the hospital and they are always very impressed with it. So I think people are beginning to see it as **their** community hospital." (Fourdoc, GP)

The same cooperative also felt that there was considerable scope for extension of their activities within the community hospital site. The fact that primary and secondary care services existed in the same building was seen as advantageous to the more effective treatment of patients.

> "You could actually provide a whole service there. So I think with extra funding there, we could actually save A&E quite a lot of work, and if the funding was different, we could admit quite a lot of people that we see, especially the elderly [for short-term care]." (Fourdoc, GP)

Those cooperatives that had located emergency centres within acute hospital trust premises also pointed out the advantages of being able to rely on hospital nursing staff for GP backup and assistance. In addition, they mentioned further advantages that did not always apply to the cottage hospital sites:

- acute hospitals are usually centrally located, well signposted and easily accessible
- they offer adequate parking
- there is quicker transfer and admission of patients into an acute hospital
- good working relationships between GPs and hospital staff are established and/or improved.

However, a major concern for cooperatives based on hospital sites was the confusion of the two roles in the minds of patients. This was most problematic where emergency centres were based in A&E departments, as often the cooperative and A&E used the same waiting area.

Even when cooperatives try to remain distinct from the A&E department, there is often still confusion for patients. Smalldoc based its emergency centre in the fracture clinic at the local hospital, which is adjacent to the A&E department and uses the same

entrance, but was chosen over it on the grounds of its 'neutral' status. Hospital staff, however, feel that there is still confusion among patients and point to the potential dangers of inappropriate attendance and cross-referral.

> "There're obvious advantages of being close to the A&E department from the co-op's point of view, but they need a purpose-built unit to operate from – a distinct, separate, designated site within the hospital grounds." (Smalldoc, A&E Consultant)

This problem is not exclusive to acute hospital sites, but was also an issue for Cottdoc, which uses two cottage hospitals as emergency centres. The patient survey revealed that 24% of those who had been asked to attend one of the two centres claimed that they had attended A&E. It seems likely that patients interpreted the request to attend the on-duty GP as advice to attend the 'hospital,' and as there is no spatial separation of function at either of the centres, this assumption is understandable.

> "Often we don't know whether the person walking through the door is a casualty or a GP co-op patient." (Cottdoc, Hospital Manager)

The multi-functioning of premises can also prove to be problematic at sites other than hospitals. The problems of sharing the same space occupied by other, predominantly daytime users of a building, were amply explained by members and staff of Fardoc:

- each morning, it is necessary to pack-up and remove the cooperative's equipment, including the computer (which apparently objects to this treatment) and to set it all up again each evening
- domestic facilities are poor and the only common room is often in use evenings and weekends for meetings of daytime users and community groups
- security is a problem because members of the public have access to the building (there have been a number of thefts)
- the local community are used to 'dropping in' at the clinic, and try to use the cooperative in the same way.

Nonetheless, reception, waiting and consulting facilities for Fardoc are excellent, and there is a more than adequate telephone facility.

There are obvious advantages attached to having an emergency centre purpose-built for a cooperative, but the main constraining factor is cost. One of Fourdoc's centres is a centrally located bungalow, which cost over £30,000 to convert. Even when a building has been designed with the needs of a cooperative in mind, if it is shared with other users whose needs must also be taken into account, it can be less than ideal.

> "The clinical facility is a compromise, because we use part of the GP practice's facility. The night-time accommodation is separated because downstairs we have an ops. room and upstairs we have sleeping accommodation. The administration has had to be separated because we have two rooms separated by the corridor from the other facilities. I felt that this was not the most coherent use of space; not the best planned type of space for us to use; it's effective; it works, but we are limited by the space." (Leaddoc, founder)

Although Leaddoc's purpose-built emergency centre has excellent facilities, the location is not ideal for those patients living near the edges of the cooperative boundary. The same problem exists for Fardoc; although their emergency centre is centrally located, the area covered by the cooperative is so large that there will inevitably be patients for whom the journey to the centre is long and inconvenient. The immediately obvious solution of building further emergency centres to cover widely dispersed patient populations is not an option for two main reasons.

- The cost of building new premises or even taking over existing premises would mean that GP members may have to contribute more of their own money to the cooperative.
- The GP rota would have to be considerably extended to cover an extra centre and shifts, meaning that not only would GP members be paying more, they would also have to work more hours on call.

Facilities and staff

All of the emergency centres with the exception of Countydoc's ambulance station premises have both reception and waiting areas for patients, though these vary in size, age and convenience of use, depending on the type of premises and whether they serve a single or dual purpose. Single-purpose areas, for instance those in health centres and surgeries, generally offer greater convenience for staff and patients than multi-purpose areas. Smalldoc, Fardoc and Nursedoc all have to remove cooperative equipment at the end of each shift to make space for daytime users of the premises. In the case of Smalldoc, GPs recognise that resentment may rise if premium hospital space is given over exclusively to cooperative usage, but there is still tension surrounding the issue.

> "We only use a clinic which is used by other people at other times; it's not solely ours, which is not surprising because we only use it for short periods, and [the hospital] feel that the alterations we want will interfere with the day-to-day running." (Smalldoc, GP)

Clinical facilities at most of the emergency centres were generally thought to be sufficient to meet the needs of an on-call GP. In fact, most cooperative members felt that working shifts in a fully equipped emergency centre represented a dramatic improvement when compared with the old system of home visiting. However, some cooperatives offer better clinical surroundings than others. Countydoc's ambulance station base is generally considered to be inferior to their other bases. Smalldoc GPs complained of a lack of privacy and confidentiality both in taking calls and receiving patients at reception, as well as inadequate examination facilities.

> "Facilities aren't as good as we'd like. We're working in the Fracture Clinic, which is not properly set up to provide primary care." (Smalldoc, GP)

The multi-usage of premises has worked in cooperative GPs' favour at other sites. As has been mentioned, those based in acute and community hospitals are able to make use of the clinical equipment and have the support of hospital staff. This is particularly true of the community hospital sites used by Fourdoc, Cottdoc and Countydoc.

Domestic arrangements were a bone of contention among GPs at all but two of the case study centres. Leaddoc GPs and GPs at one sector within Fourdoc were fully satisfied with the domestic arrangements at their centres, which was probably due to the fact that the premises were purpose-built. All other sites complained of inadequate and makeshift sleeping facilities for the GPs on duty, (though some pointed out that they did not often have the opportunity to sleep anyway). Most lacked common rooms where staff could rest and make refreshments.

Smalldoc, Nursedoc and Cottdoc were the least satisfied with the domestic facilities for staff, due in part to the fact that they are all based in hospital premises, where constraints on space make it difficult to set aside common rooms, bedrooms and office space.

> "It is what the hospital had to offer us and we have adopted it to our purposes. But I think that it is far from ideal and the nurses that work there are not terribly happy with the layout of it." (Nursedoc, GP)

> "Absolutely appalling. If it was in a hospital for a junior house officer, it would be totally unacceptable." (Cottdoc, GP)

Although these cooperatives wished for improvements to their domestic arrangements, they recognised the constraints on funding, and the fact that in some cases the premises they were using were unsuitable for conversion. However, Nursedoc has recently been able to secure improvements in domestic and office accommodation.

Staffing arrangements vary between the cooperatives. While all emergency centres have at least one GP on duty per shift, not all the cooperatives have drivers or receptionists. An outline of the staffing arrangements is given in *Table 6*.

Some cooperatives experience minor conflicts of interest between staff members from different health professions. This is particularly the case where a cooperative is based in an A&E department, as the dual role of the nurses may not be fully recognised. Nursedoc have experienced some differences in attitude between the cooperative GPs and the nursing staff who triage calls for the cooperative, but who also rotate through A&E. Before changes were made, most Nursedoc GPs were happy with the cooperative's domestic arrangements, whereas the nursing staff complained of cramped conditions and over-heating.

Problems may also arise between staff because of the independent contractor status of GPs. None of the cooperatives had set out protocols for GPs; they continue to follow regional and national guidelines and their own clinical judgement on the treatment of patients. However, nurses, drivers, receptionists and any other staff often follow strict protocols on specific subjects. For example, Leaddoc have protocols for their receptionists/telephonists relating to certain illnesses such as chest pain and asthma. The problem is highlighted in the case of Nursedoc, where nurses are working closely with GPs, but operating under different guidelines.

> "The biggest problem is that [there are] 60 GPs who are all individuals. They bend the rules to suit themselves, whereas in a more structured organisation such as the hospital you would expect people to follow the rules and would generally take action if they don't. There is a lot of confusion, certainly among the nursing staff of what should be the protocols and procedures, because some GPs tend to ignore them." (Nursedoc, A&E Nurse)

Similarly, the drivers in Fourdoc are guided by protocols from their employers, the ambulance trust. They are obliged to follow these rules, even though their relationship with their employer is more remote than the day-to-day relationship they have with the cooperative GPs.

TABLE 6 *Staffing arrangements at centres*

Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Countydoc
• Two GPs until 11 p.m. (one centre-based, one mobile); one GP after 11 p.m. Typically three GPs at busy periods such as Christmas and bank holidays • Three part-time telephonists/receptionists employed. Reception cover evenings and weekends only • One driver between 11 p.m. and 8 a.m. (ambulance trust contract). GPs drive evenings and weekends, though some pay drivers from their own pockets	• One GP at each of two centres until 11.30 p.m.; one GP at one centre after 11.30 p.m. with a second GP at home on standby • One receptionist at each centre from 10 a.m. until 3 p.m. on Sundays. The remainder of the time, hospital nursing staff will receive patients • Initially, Cottdoc leased two cars and employed drivers. However, costs of vehicles were not met by development funds and GPs now drive their own cars	• Three GPs until midnight (one centre-based, two mobile); one GP after midnight, with a second on standby at home. At busier periods, there are extra shifts • 10–12 receptionists employed. Two receptionists until midnight; one receptionist from midnight until 7 a.m. • 10–12 drivers employed. Three drivers until midnight (two driving; one security and reception). One driver after midnight	• One GP at each of four centres at all times, with some overlapping shifts at weekends to facilitate planned centre attendances • No reception staff. Drivers and GPs take patients' calls. Driver completes documentation • One driver at all times (ambulance trust contract)	• Red and green GP rotas; red rota staffing emergency centre with two GPs per shift; one additional GP at home covering green rota • A&E nurses operate triage system; care assistants act as telephonists/receptionists. Nurses rotate between the cooperative and the A&E department • No drivers	• Two GPs until midnight; one GP after midnight. Three GPs Sunday and bank holiday day shifts • One receptionist on duty for each GP working at the centre (same shift times) • One triage nurse on duty 6 p.m. to 9 p.m. weekdays • One driver on duty for each GP working at the centre (same shift times)	• Typically, one GP on duty for each rural zone, with a second at home on standby, and some overlap in weekend shift times to facilitate centre attendance. Urban zones have two GPs on duty evenings and weekend days, one at base and one mobile, but only one mobile GP at night • No dedicated receptionists at any of the centres, though hospital staff are available to help at three centres • One driver on duty at each centre throughout all cooperative operating hours

Catchment population and area

The seven case study cooperatives were chosen on the basis of their different geographical areas and patient populations, as well as other factors such as management structure, staffing and payment systems. Smalldoc covers a compact area centred around one main urban area on the north-east coast, and taking in suburbs and villages in the close vicinity. Its one emergency centre serves a clustered population of 51,000, mainly from the lower socio-economic groups. Deprivation is multi-layered, with high levels of unemployment leading to social problems and crime. In contrast, Leaddoc covers a large semi-rural area in the south-east of approximately 180,000 patients, but also has only one emergency centre. The population are mostly affluent middle-class and live in one major town and outlying villages, though there is some deprivation in the coastal resorts. Fardoc also covers mainly middle-class patients in a semi-rural area of East Anglia. However, while the population served (120,000) is lower than that covered by Leaddoc, it is the most widely dispersed, and is still only covered by one emergency centre.

Countydoc is the largest of the cooperatives studied, both in terms of its geographical area and patient population. It covers 400,000 patients in a whole county in the south-west, and also takes in a number of practices from bordering counties. However, it differs from other large cooperatives in that the county is divided into six zones – two urban and four rural – each of which is served by its own emergency centre. Access for patients is therefore reasonable, though patients in some of the more remote rural villages may experience some difficulty.

Nursedoc and Cottdoc both cover rural areas, but serve vastly different populations, both in terms of numbers and dispersion patterns. Cottdoc serves a population of 45,000 in a rural forested area with three main towns and surrounding villages. There are areas of very sparse population and public transport is poor, but the cooperative runs two emergency centres from cottage hospitals in the north and south of the area, which reduces the distance problem. Nursedoc covers 124,500 patients, and operates from a DGH site in the one main population centre. As much of the deprivation in the area is concentrated in the main town, lack of transport is not such an issue as it is for deprived rural populations. However, there are areas of hidden deprivation in Nursedoc's rural environs, associated with the traditional agricultural workforce.

An overview of the case study sites has been given in chapter 2.

The patient survey at six of the cooperatives backs up the geographical evidence. Smalldoc serves the least-widely dispersed population. Of those who know its location, 75% live within 3 miles of the emergency centre. None live more than 10 miles away. In contrast, of those who know its location, only around one-third of Fardoc's patients live within 3 miles and nearly a quarter live more than 10 miles away. In aggregate, 58% are more than 5 miles away.

Despite having four centres, Fourdoc's patients are the second most widely dispersed, with 44% of those who know living 5 or more miles from a centre. It does however, have the fewest peaks and troughs, which suggests that its centres are as well situated as is possible to cover its broad geographical area. It is interesting that Fourdoc has the highest proportion of patients who do not know where their nearest centre is located. This may be a product of Fourdoc's limited use of centre-based care, or may be a product of having four centres.

Cottdoc with two centres and Leaddoc with a single centre have very similar geographical distributions of patients to each other.

Despite the fact that it is the newest of the cooperatives studied, Nursedoc patients appear to be best informed as to the centre's location. This could be because the hospital site is already well known to them, but will also be a product of the very high proportion of patients who are asked to come to the centre. It may also be related to Nursedoc's publicity and information campaign.

Calculated on the basis of mid-points of range and assigning a value of 12.5 miles to patients who estimated that they were more than 10 miles from their nearest centre, the mean distance to the centre for each cooperative is as follows:

- Smalldoc: 2.4 miles
- Cottdoc: 4.1 miles
- Leaddoc: 4.1 miles
- Fourdoc: 5.5 miles
- Nursedoc: 4.2 miles
- Fardoc: 6.3 miles.

On this basis, it appears that Fardoc could give further consideration to the establishment of a satellite centre, an idea which has been floated in the past. Smalldoc, which is loathe to admit two additional practices because of the added distance they would represent, might wish to reconsider their decision. However, their limited infrastructure and single centre could still represent a considerable barrier to this.

The full distribution of patients' estimates of distances to centres, including those who don't know, is shown in *Table 7*.

Opening hours and access arrangements

The notion behind cooperatives in general is that they should provide an emergency service for patients outside normal surgery hours. All of the seven cooperatives studied provide cover after surgery hours; on weekdays, four of them open at 7 p.m., one at 6.45 p.m., and two at 6 p.m. Patients are able to make use of the out-of-hours service up until either 7 a.m. (four cooperatives), 8 a.m. (two cooperatives) or 8.30 a.m. (one cooperative). At weekends, out-of-hours cover begins after the Saturday morning surgery, and this varies between 11 a.m. and 1 p.m., with the median opening time being 12 noon.

The emergency centres are not necessarily open during all the hours the cooperatives are in operation, and centre opening times tend to run concurrently with GP shifts. The number of shifts to be covered within each cooperative varies quite widely, and is a product of the length of the shifts and the number of GPs on duty at any one time. The number of GPs on duty is in turn linked to patterns of demand and the number of centres that the cooperative runs.

TABLE 7 *Respondents' estimates of distance from home to nearest primary care emergency centre*

Distance	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
< 1 mile	45 (18%)	30 (14%)	35 (15%)	26 (14%)	35 (15%)	30 (14%)	201 (15%)
1–3 miles	120 (49%)	53 (25%)	68 (30%)	32 (17%)	86 (36%)	39 (18%)	398 (30%)
3–5 miles	38 (15%)	56 (27%)	31 (14%)	27 (14%)	44 (19%)	14 (7%)	210 (16%)
3–10 miles	16 (7%)	39 (19%)	50 (22%)	38 (20%)	36 (15%)	70 (33%)	249 (19%)
10+ miles	0 (0%)	11 (5%)	13 (6%)	30 (16%)	24 (10%)	48 (22%)	126 (10%)
Don't know	27 (11%)	22 (10%)	31 (14%)	37 (20%)	13 (6%)	13 (6%)	143 (11%)
Total	246	211	228	190	238	214	1327
$\chi^2 = 232.98$; degrees of freedom (df) = 25; $p < 0.00001$							

Thus, for example, Fourdoc covers a total of 68 shifts a week, but has only a single doctor on duty for each shift at each of its four sites. Its emergency centres **are** open for the duration of the cooperative's opening hours, though lack of receptionists makes patient access more difficult, particularly if the GP is out in the car. Countydoc has over 120 shifts to cover at its six sites, including a second GP on duty at times when the centres are open to receive patients. Their opening times vary from site to site, with none offering a night-time service and only two formally offering a weekday evening service. Three of the centres are officially open only on Sundays, for a limited number of hours.

Smalldoc and Cottdoc have very similar patterns for their 27 shifts per week. Each has a single GP on duty throughout the night, but Smalldoc has two GPs on duty at a single centre, and Cottdoc has one GP on duty at each of two centres at all other times. Smalldoc's emergency centre is open for the duration of the cooperative hours. Only one of the Cottdoc centres is open overnight as a GP emergency centre, but both bases still operate as A&E departments on a 24-hour basis.

Fardoc has a similar pattern to Smalldoc, with 28 shifts a week, including an extra GP on Sunday mornings. Its single centre is open to patients during all the cooperative hours of operation. Fardoc also has the worst problem with patients 'dropping in,' without appointments, and this could be attributed to its central location and associations with its daytime usage for various clinics.

Nursedoc also covers 27 shifts, but their operation is quite different to the other cooperatives discussed. While most cooperatives have two shifts on weekdays (evening and night), and four on Sundays, Nursedoc has only one shift on weekdays (6 p.m. to 8.30 a.m.), one extra shift on Saturdays (11 a.m. to 6 p.m.), and one extra shift on Sundays (8.30 a.m. to 6 p.m.). There are three GPs on duty covering two rotas at all these times, and the centre is open during all designated cooperative hours.

Leaddoc, with a single centre, has three GPs on duty for all but night shifts. Nights are covered by a single GP, who can call on a designated 'standby' GP at home if necessary. The centre is open during all the hours the cooperative is in operation. On bank holidays, extra 'mini-surgery' sessions of 3 hours' duration are also held at a local cottage hospital and health centre.

The cooperatives studied employed different methods of call answering and message taking. Of the seven, three had chosen to employ the services of an ambulance trust to provide an answering and message-handling service, though one was in the course of changing to a private sector company and a second had only recently changed from running its own central message-handling service. In all three instances, this meant that the GPs on duty rang patients back as a result of messages relayed from the answering service. All these cooperatives were multicentre sites and none employed reception staff, though community hospital staff provided assistance to two, when necessary. Three of the remaining four cooperatives employed their own telephonists/receptionists to handle calls at their centre. One of these sites was moving towards the employment of trained nurses who could also triage calls and another had telephone staff only until 11 p.m., after which GPs handled their own calls. The fourth had a contract with their local acute trust to employ A&E care assistants and nurses on a rotational basis. This cooperative used the nurses to triage patients' calls.

A summary of access arrangements and appointment systems is shown in *Table 8*. This figure also sets out cooperatives' use of appointment systems. However, much is at the discretion of individual GPs and multicentre cooperatives may have different arrangements at different sites.

Surgery answerphones with recorded messages are preferred by many cooperative members because they are thought to filter out routine calls for appointments and repeat prescriptions made by patients who are unaware that the surgery is closed. The perceived advantage of automatic diversion is that patients do not have to interpret a recorded message and dial a second number in what may be a stressful situation.

Cooperatives that employed message-handling services generally did so because it relieved them of the necessity of recruiting, training, equipping and payrolling their own telephonists/receptionists, organising rotas and covering for sickness absence and leave. However, it was accepted that external services created an additional barrier between patient and doctor, and could result in long delays in re-calling patients when the duty doctor or the service was particularly busy. For instance, in one service patients were told to phone again if they had not heard from a GP within 20 minutes.

> "If you are actually tied up seeing someone for over 20 minutes, you then get the same call coming back again. Also, if you have somebody who has collapsed it's not very good to be told that a doctor will contact

TABLE 8 *Cooperative access arrangements*

	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Countydoc
Call diversion	Predominantly automatic from individual surgeries; some surgery answerphones with recorded message	Predominantly surgery answer-phones with recorded message; some automatic diversion	Predominantly surgery answer-phones with recorded message; some automatic diversion	Automatic diversion with recorded message	Surgery answer-phones with recorded message	Automatic diversion and surgery answerphones	Predominantly surgery answer-phones with recorded message; some automatic diversion
Answering	Employed receptionist until 11 p.m., then duty GP	Message-handling service; GP re-calls patient	Employed telephonists/ receptionists	Message-handling service; GP re-calls patients	A&E healthcare assistant in rotation scheme	Employed telephonists/ receptionists (some nurses)	Message-handling service; GP re-calls patients
Appointments	Some GPs give appointment times, but no formal surgeries	Weekend mini-surgeries or attend straight away	Appointment times evenings/nights; open surgeries weekends	Weekend mini-surgeries; appoint-ment time or attend straight away at other times	Appointment times only	Attend straight away (with some effort to control 'flow')	Appointment time or attend straight away
Base to car	Mobile telephone and pager	Mobile telephone and pager	Mobile telephone	Radio link and mobile telephone	Mobile telephone and pager	Mobile telephone	Radio link through message-handling service
Triage	GP	GP	GP	GP	A&E nurse in rotation scheme	Some reception triage, introducing nurse triage	Limited 'common-sense' prioritisation by operators

> you in 20 minutes. They're expecting an instantaneous response. I've always been unhappy with the ring back situation because I feel that it leaves patients in limbo and it would be nice to have some system where they would know you've got the call." (Cottdoc, GP)

Furthermore, the message-handling services themselves admitted that they had sometimes experienced problems in attracting the right number and calibre of staff and, particularly where they were servicing a number of cooperatives and other organisations, patients could experience difficulties getting through.

Smalldoc had deliberately chosen not to join forces with a larger, neighbouring cooperative that used a message-handling service, because they believed their own unsophisticated system provided a better service for patients.

> "It keeps communications simple by reducing the links in the communication chain. The person who picks up the phone is actually the GP who's on. At other times it's the receptionist who quite frequently may have a GP sat next to them, so we deal with things straight away." (Smalldoc, GP)

> "We don't really have a call-handling service. This is one of the strengths of the [Smalldoc] co-op, and one of the reasons why [we] didn't join the X co-op, because we felt it would be a retrograde step." (Smalldoc, GP)

Leaddoc are able to offset a little of the cost of employing their own telephonists by providing a message-handling service for other groups of professionals with 24-hour service commitments. They have also invested in equipment to tape record all telephone transactions as a precaution against unjustified complaints. Countydoc also offers its members the option of using the call-handling service at times when the cooperative is not operational, at a small cost.

Two of the cooperatives, one with a single dedicated telephone line and the other with two lines, were concerned that patients might find it difficult to get through to them at particularly busy times.

Theoretically, access to the centres is controlled entirely by telephone. In fact, all the cooperatives experience some problems with patients who simply turn up at the centre without making prior contact.

> "People are beginning to know that we are here and beginning to use us out of hours as a sort of additional doctor's surgery – walking in off the street with certainly non-urgent medical things like coughs and colds and so forth because they can't get to see their doctors very easily and it's easier for them to come here." (Fardoc, Management Committee Member)

The extent of this problem and the way in which it is handled varies from site to site. Reception staff appear to be somewhat better at 'protecting' the service from drop-ins than the GPs themselves.

> "It is something that will wreck the system. Most GPs are not very confrontational – not many of us would say 'This is dreadfully inappropriate and clear off'. We'd rather see the guy. It's quicker, it's much more pleasant. I suppose I'm a bit guilty for perpetuating it." (Fardoc, GP)

Generally, it is difficult to turn people away from the door, and the main thrust of discouraging drop-ins appears to relate to their future behaviour. In some instances, drop-in patients are seen but are given or sent a letter explaining why it is inappropriate and how they should access the service in future. Cooperatives based in community hospitals with casualty services have the added problem of distinguishing between casualty patients, where prior contact is not necessary, and GP patients, where it is. Again, it is the nursing staff rather than the GPs who appear to take much of the responsibility for discouraging drop-ins. They will turn GP patients away, referring them back to their own GP.

Respondents to the postal surveys of consulting patients were asked "How do you feel about the arrangements for contacting a doctor when the surgery is closed?" Broadly, those cooperatives that employed dedicated receptionists and had the fewest barriers between patient and doctor were regarded most favourably by patients (Leaddoc, Smalldoc and Fardoc). The cooperatives that sub-contracted telephone answering and message handling (Cottdoc and Fourdoc) and relied on GPs re-calling patients were less acceptable. Fears expressed by Nursedoc that patients might be experiencing difficulties making contact were apparently justified, and they have since installed more lines. *Table 9* compares patients' views between cooperatives. Respondents who had not contacted the cooperative themselves, for instance those where a partner had made the call on their behalf, were not asked to give an opinion.

Regardless of the system employed, there were no significant differences between cooperatives in patients' opinions on the manner, helpfulness and understanding shown by operators. Overall, less than 2% complained that the person who had answered the telephone was 'not very polite' or 'not polite at all' while 80% felt that s/he was 'very polite'. Less than 4% felt that the telephone answerer was 'not very helpful' or 'not helpful at all', with 74% saying 'very helpful'. Fewer felt that the operator was 'very understanding' (67%) and more (6%) complained s/he was 'not very understanding' or 'not understanding at all'. In some instances, this may reflect patients' expectations of a home visit not being met (see below).

Security

Security arrangements at the emergency centres vary widely, depending on the type of premises occupied, their geographical location, and whether they are in urban or rural areas. Some of the cooperatives deemed security systems to be of utmost importance to the safety of their staff, while others relied on existing security arrangements or did not consider them necessary. Even within cooperatives with a number of emergency centres, the security systems differed from one centre to the next.

The emergency centres situated on a hospital site found that they had no need to implement additional security systems, as those used by the hospital were sufficient. Additionally, hospitals have staff on duty 24 hours a day, thus providing reassurance for the cooperative receptionists, who might otherwise be alone in an emergency centre when the GPs are out on home visits. These two advantages were evident whether emergency centres were based in cottage hospitals, an A&E department or other hospital space.

The one exception was Nursedoc, which uses the geriatric day unit of the local hospital as its emergency centre, and installed video cameras, panic buttons and a locking system with intercom on the

TABLE 9 *Respondents' opinions on cooperative access arrangements*

	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
Fine as they are	157 (84%)	120 (69%)	182 (89%)	108 (71%)	170 (71%)	168 (79%)	905 (77%)
Could be improved a little	22 (12%)	45 (26%)	21 (10%)	37 (24%)	48 (20%)	36 (17%)	209 (18%)
Could be improved a lot	7 (4%)	9 (5%)	2 (1%)	8 (5%)	20 (8%)	10 (5%)	56 (5%)
Total	186	174	205	153	238	214	1170
$\chi^2 = 42.46; df = 10; p < 0.0001$							

front door. Although the unit is on a hospital site where there are staff on duty 24 hours a day, the cooperative nurses still feel that they are somewhat isolated, particularly when the GPs are out on home visits. This may reflect the deprived urban location of the hospital.

> "The nurses have commented that they feel isolated. The hospital doesn't employ any security guards – the nurses rely on the goodwill of the porters to act as 'bouncers'." (Nursedoc, GP)

However, the assumption that centres in deprived urban areas are at risk from break-ins, while those in rural or affluent locations are 'safe' may be overly simplistic. Smalldoc's emergency centre occupies similar premises to Nursedoc, and covers a patient population alleged to have significant drug, alcohol and crime rates, yet staff did not report any of the problems mentioned above. In contrast, Leaddoc's purpose-built emergency centre is located in an affluent semi-rural area, and fitted with alarms, a key-pad entry system for staff, and closed circuit television cameras, but has still experienced problems with vandalism and break-ins.

> "In fact, it seems to be the current 'chicken game' among the youth of the area to try and get in." (Leaddoc, GP)

It is difficult to gauge whether security systems will be needed when planning an emergency centre, and the level of security needed for a particular location. There is a further problem in that the decisions about security arrangements are made by the GP members of the cooperatives, and not by their reception or nursing staff, who tend to be the ones who are left alone in the centres at night, and fear for their personal safety.

From the viewpoint of reception and nursing staff, it appears that for hospital-based emergency centres, the presence of other staff is usually sufficient to ensure that cooperative staff feel safe. For emergency centres based in clinics, health centres, and purpose-built premises, an alarm system and a door-locking device tend to be seen as the minimum requirements.

Communications systems and records

The systems for call-taking and message handling have been discussed above. The cooperatives employed a variety of methods for recording patient contacts. Four have computerised records; Fardoc and Countydoc use the Adastra system, and Nursedoc have recently installed it. Leaddoc at the time of study were changing from a manual system to the Knight Owl® computer package. These cooperatives stressed that computerised records were more efficient and time-saving than manual systems.

> "When it had to be hand-written and then radioed out, that was when problems occurred, because the receptionists were so busy answering the patients' calls that they were almost not having time to get the messages out to the cars." (Leaddoc, GP)

However, none of these cooperatives have fully computerised records; initial patient contact details are entered onto a database, but clinical details are still entered by hand once the duty doctor has completed a call. Fardoc are considering the inclusion of clinical details on the Adastra system, but recognise that GPs will have different levels of computer literacy, thus there are likely to be associated training costs.

> "Some of us would like to be able to type the records onto the computer directly, but then again, the problem is that because you've got so many doctors doing it, you'd have to have them all familiar with the system." (Fardoc, GP)

The remaining three cooperatives fill in **log** or **call sheets** manually. These are self-carbonating and are produced either in duplicate or triplicate, so that copies can be held at least by the duty doctor and the patient's own GP. (The third copy is normally kept at the cooperative base for administrative purposes.)

Although there is variation in the methods of recording patient contacts, the basic principle is the same; messages are taken by receptionists/telephonists or the cooperative message-handling service, and the patients' details are taken down. Whether computerised or manual, all of the cooperatives ask for the following information:

- date and time of the call
- caller's name and address
- caller's telephone number
- the name and address of the patient if different from the caller
- patient's date of birth
- patient's registered GP.

Some also ask for additional details:

- patient's sex
- whether the patient is a temporary resident
- whether the call is an emergency
- whether it is a night visit (in order to claim the fee).

The details of the contact are then passed to the duty doctor, who may either be at an emergency centre or out in the car. The methods of contacting the GP in the car range from the sophisticated computer system employed by Leaddoc, to radio communications, mobile phones and pagers. All of the systems employed have their advantages and disadvantages. Radio communications are generally seen as undesirable because they can be intercepted by other users, and are a potential breach of patient confidentiality. Mobile phones cannot always be contacted, thus cooperatives covering patchy areas must use pagers as a back-up, which adds to cost. This system is used by Smalldoc, who rely on the ambulance trust to take calls and page the GP out in the car if s/he cannot be contacted by mobile phone.

> "If the mobile phone isn't answered within so many rings it's automatically transferred to the ambulance people, so they get the call, and then they either go if it sounds very urgent, or if it doesn't they bleep us – there isn't a 'dead' area for bleeps. So we carry the bleep at night, and if that goes we ring the ambulance people and they pass the message on to us." (Smalldoc, GP)

Once GPs have dealt with a call to the cooperative, they will add the clinical findings to the log sheets (or print-outs if the cooperative keep computerised records), as well as stating whether the call resulted in telephone advice, a home visit or the patient's attendance at an emergency centre.

The duty doctor also notes down the management of the patient's symptoms, which may be one, or a combination of the following:

- advice
- treatment
- prescription
- patient to visit the surgery in *x* days/weeks
- GP to re-visit the patient at home
- hospital referral
- referral to another agency (e.g. undertaker/coroner, social services, police, dentist).

In some cooperatives, the management of symptoms is included in the body of the clinical notes, while in others, the doctor is required to tick a box.

Patient contacts with a GP out-of-hours must be forwarded to that patient's own registered GP for inclusion in their medical notes. Variation existed between the cooperatives, both in terms of the methods employed for contacting the patient's own surgery, and the time lag between the out-of-hours contact and informing the surgery. In all cases, if the out-of-hours call had been an emergency, the patient's own GP was notified the following morning either by telephone or urgent fax. For all other out-of-hours calls, all but one of the cooperatives faxed the surgeries, but the frequency ranged from daily to every few days. Smalldoc do not fax the surgeries; because of the location of their emergency centre on hospital premises, they post log sheets in the hospital internal mail every 2–3 days.

A summary of the types of records held by the cooperatives studied is shown in *Table 10*.

TABLE 10 *Cooperative patient record systems*

Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Countydoc
• Patient contact details entered manually by receptionist onto log sheet in triplicate • Call passed to GP at centre, or in car via mobile phone (or bleep back-up operated by ambulance trust) • Patient clinical details completed by GP • Log sheets posted to surgeries in hospital internal mail every few days	• Patient contact details taken by message-handling service • Call details phoned through to duty doctor at one of two emergency centres, or via mobile phone if out in the car • GP fills in contact and clinical details on log sheets in duplicate • Log sheets faxed to surgeries at the end of each shift	• Patient contact details entered onto Knight Owl computer system by receptionist • Call sheet printed out and handed to GP at emergency centre, or sent to mobile communication computer in the cars, where it appears on screen. Mobile phone and pager back-ups also available • GP completes clinical details • Call sheets faxed to surgeries on a daily basis	• Patient contact details taken by ambulance trust message-handling service • Call details phoned through to one of four emergency centres, or via mobile phone if out in the car • Contact details copied onto log sheets by drivers • Clinical details completed by GP • Driver informs message-handling service that call is complete • Log sheets faxed to surgeries by drivers at the end of each shift • Considering computerisation of records	• Patient contact details entered manually by receptionist onto log sheet in duplicate • Nurse triages call: 1. nurse gives telephone advice and fills in clinical details, or 2. nurse passes call to GP at emergency centre or via mobile phone if out in the car, and GP completes clinical details • Call sheets faxed to surgeries overnight from Adastra computer system	• Patient contact details entered onto Adastra computer system by nurse receptionist • Call sheet printed out and passed to GP at emergency centre or via mobile phone or pager if out in the car • Clinical details completed manually by GP • Call sheets faxed to surgeries every evening • Considering computerisation of clinical details	• Patient contact details entered onto Adastra computer system by ambulance trust message-handling service • Call details relayed to GP at centre or radioed to mobile GP • GP (or driver) completes manual log sheet; GP completes clinical details manually; message-handling service informed when call complete • Urgent reports faxed to surgeries that night or next morning; others posted in batches

Chapter 6

Results – patterns of work

Demand for out-of-hours care

Many of the GPs and staff interviewed believed that their cooperative had made no significant impact on demand. Where demand was seen to be rising, this was attributed to a general, national trend rather than an outcome of cooperative, centre-based care.

> "I think patient demand generally has increased and I think this is throughout the country. Demand and expectations have grown. This has been fuelled by *Patient Charters* and all these political gestures, which are most unrealistic." (Leaddoc, GP)

Each cooperative is a 'melting pot'; GPs and practices bring to it their own attitudes and working patterns and their own levels of patient demand which have developed over many years. The cooperative may modify the behaviour of individual GPs and patients and this will be felt at a practice level. The net effect of these modifications may be no overall change at the cooperative level.

There were, however, a significant number of GPs who believed that cooperatives had increased overall levels of demand, particularly by establishing centres and they advanced a wide range of reasons why this might be so.

Increases were attributed to:

- the higher profile that having an emergency centre gave to out-of-hours care
- the added convenience for patients of having weekend and evening surgery consultations, particularly for those in work
- lower consulting thresholds for telephone advice and centre attendance than for home visits
- less reluctance on the part of patients to contact GPs known to be on duty at a centre rather than on call at home
- less reluctance to contact a 'nameless' GP
- access to a second opinion when a consultation with their own GP had proved unsatisfactory to a patient
- longer waits for weekday appointments at surgeries, due to rising daytime workload.

The last point may be implicated in rising demand whether a cooperative exists or not.

Far fewer GPs believed that the cooperative had led to an overall decrease in levels of demand, but there were those who had noted reduced demand from their own practice populations since their recent entry into a cooperative.

Decreases in demand were attributed to:

- patients preferring to wait to see their own GP next day rather than seeing a 'stranger'
- the inconvenience of having to travel to a centre with a non-serious problem
- the efforts of GPs to educate patients in the appropriate use of the out-of-hours service provided
- the 'safety net' of a higher profile service, encouraging patients to self-treat first rather than panic immediately
- the barrier between GPs and patients created by reception staff and message-handling services.

Members of established cooperatives were more likely to believe that, while there might be an initial dip in levels of demand, these soon recovered to their pre-cooperative levels and then began to rise.

GPs were also asked what impact, if any, the cooperative had made on their daytime workload. Once again, there were mixed views. For many, there had been no perceptible change; rising workload was thought to stem from other causes. Some had detected a rise in urgent, same-day appointments.

> "We run an emergency surgery each morning and it has definitely increased. Monday mornings are hell and I have no doubt that people seem to be leaving it till Monday now. What we'll never know is whether that would have gone up in our old system but it's easier to say it's the co-op rather than try to work out why." (Fardoc, GP)

Precisely the opposite view was held by others:

> "It's definitely not so hectic on Mondays, because not so many are being fobbed off over the weekends by doctors not wanting to visit. We are keeping up with the workload through the weekend, which means that Monday is just another day with a clean sheet." (Leaddoc, GP)

It is interesting to note that Leaddoc has been in operation since 1992, while Fardoc only began in

1995, a year before fieldwork for this study began. Fardoc GPs were more likely to detect a decrease in out-of-hours demand associated with the recent introduction of the cooperative. This pattern may therefore not continue.

One unforeseen impact of cooperative membership has been a change in attitude to all home visiting on the part of some GPs. Having seen that patients can be persuaded to attend centres with no apparent ill-effects, they are now reducing the number of daytime home visits they are prepared to make.

It seems likely that there has been a realignment of demand for out-of-hours care rather than a significant increase or decrease which can be attributed to cooperatives. While this will remain a subject for debate and further investigation, it is abundantly clear that cooperatives have significantly changed the **pattern** of care provided.

Patterns of care – GP perceptions

GPs vary greatly in their willingness to undertake home visits, their ability to persuade patients to attend a centre and their confidence in giving telephone advice. Furthermore, differences in organisation, facilities and workload at centres exert a powerful influence on their behaviour. Characteristics of the area covered and the patient populations within it also affect how they respond to patients' calls.

A detailed analysis of patterns of care and differences between individual cooperatives will appear later in this section. The purpose of this sub-section is to examine differences in the attitudes and perceptions of individual GPs, which have contributed to the overall picture.

It is generally accepted that many home visits in the past were unnecessary. Changes in Clause 13 of their *Terms and Conditions of Service* have strengthened the GPs right to base the decision on whether or not to visit on clinical grounds alone. Despite this, there is considerable disagreement on how much home visiting should be reduced and to what extent non-clinical factors should be taken into account. The comments below illustrate the gulf between individual GPs. The first two are particularly interesting in that they come from GPs in the cooperatives that have the lowest and the highest rates of home visiting, respectively. The second and third highlight the fact that very different attitudes exist within the same cooperative.

> "I think you just have to take everything into account. It always has been so, and it always will be so, that social factors do matter. If you have got a lone parent without any friends or neighbours nearby, she's going to need a visit more than the middle-class lady with the car and the husband to look after the family." (Fardoc, GP)

> "If they are expecting a weekday service at the weekends, they have to behave like weekdays. Which means they have to get in their cars and come to see us. Now I don't expect people to do that if they've broken their leg or they're having an infarct or something, but if they've got an earache or a child with a temperature, then they do exactly as they do in the week – they go to the centre. And if it's 3 o'clock in the morning and its inconvenient, that's more difficult, but I think they should do that, too." (Fourdoc, GP)

> "I know some people get very wound up about this [home visiting]. I tend to see everybody that wants to be seen. It's becoming a big issue with some doctors; it's almost a matter of pride to try to force patients [to attend] which seems a bit counter-productive to me." (Fourdoc, GP)

The range of factors that individual GPs said they would take into account alongside clinical need in assessing whether to make a home visit included:

- the patient's age – elderly patients would be more likely to receive a home visit
- the patient's home circumstances – single parents with two or three children would be more likely to get a home visit
- the time of the call – weekend and evening callers would be less likely to receive a home visit than night callers
- location of the doctor – whether the doctor was already mobile and in the vicinity of the patient's home
- workload at the centre – when centres are busy, it is difficult to justify leaving to make home visits which are not clinically necessary
- the patient's address – those in 'unsafe' areas are less likely to be visited
- the patient's attitude – it is less confrontational to try to influence future behaviour during a home visit than to refuse a home visit on the telephone to patients demanding their rights
- the weather – where cooperatives have access to four-wheel drive vehicles, a home visit may be the only option in winter conditions
- distance – more distant patients are less likely to be visited because other emergencies may arise during the GP's absence from the centre.

Patients' attitudes are seen to be changing, with less insistence on the right to a home visit and greater willingness to attend a centre. However, as will be

shown in chapter 7, there are still numerous circumstances in which patients would object to attending.

> "There is a big group who are quite happy to come down, who are perhaps almost abusing it – who think if they come down, they're not causing **too** much trouble and they'll get seen. I think others, quite a large number, feel very guilty about calling and anything I can do to help [them], they are quite happy to co-operate. There aren't many who expect a visit as of right." (Fourdoc, GP)

The most vexing of patients' objections from the GPs' point of view appears to be lack of access to transport. A small minority of GPs see this as a valid reason for not attending a centre. Most view it as an excuse.

> "People have got to get used to the fact that they have got to be prepared to bring themselves to see the doctor. And now that people are beginning to learn that, I find I am having fewer discussions with people 'I haven't got the transport, doctor.' I just point out that in emergencies, people are usually very good – go out and ask your neighbour." (Cottdoc, GP)

Numerous advantages were quoted for treating patients at a centre rather than at their homes. Many of the GPs interviewed recounted 'nightmare' experiences of visits to homes with blaring televisions, barking dogs underfoot, crying or unruly children, filthy conditions and inadequate lighting. In contrast, centres provided good clinical equipment and facilities, a clean, well-lit, well-ordered environment and privacy for doctor and patient. They also reduce the time GPs spend driving around, reducing the number of GPs needed to provide adequate cover. Of particular importance to some GPs was the message that centre attendance gives to patients: that they have responsibilities as well as rights.

As many as 44% of out-of-hours callers to a cooperative will receive telephone advice alone. Despite this high level, many GPs feel very uncomfortable about giving advice over the telephone. Some are bending to peer pressure and increasing the proportion they advise by telephone. Others are not prepared to change to what they view as an inherently less 'safe' response.

> "I am consciously trying to [give telephone advice] more often. I think that the likelihood of making a mistake has got to be greater than seeing every single case. I think one has to accept there are bound to be risks. If I was to visit every single patient who contacted me, you'd need ten doctors on call in this area." (Cottdoc, GP)

> "I often do give telephone advice, but for whatever reason I'm just not comfortable with that. If they're not your own patients, you don't have the same degree of certainty about how accurate they are about describing what's going on, their circumstances and their past history and so on. On my part, you don't want to put the phone down and not be sure, basically." (Smalldoc, GP)

Two of the cooperatives studied employ nurses to triage calls either all or some of the time. As part of their role these nurses also offer advice to patients. An interesting observation is the different attitudes that doctors and nurses appear to adopt.

> "I certainly don't do it as readily as the nurses. As doctors, we always want to eliminate the worst case and then give our advice, whereas the nurses work on what's most common and give advice on that." (Nursedoc, GP)

In a number of a cooperatives, a rise in the proportion of patients advised by telephone was ascribed to patients increasingly telephoning for advice in circumstances where they would previously have coped alone. The service was there, and therefore they used it. In this respect at least the cooperatives were thought to be increasing out-of-hours demand. Telephone advice is the least satisfactory form of service offered from the viewpoint of patients (see chapter 7).

Quality of care

GPs were able to point to numerous ways in which they believed that the move to cooperative, centre-based services had improved the quality of clinical care offered to patients. The advantages of seeing patients in a centre rather than at home have already been mentioned (better environment, facilities and equipment). In addition, it was thought that:

- centres offered patients faster access to care than home visits
- centres were better organised and more consistent in their responses to patients' problems
- the reduced on-call commitments of members meant that they were more alert and better-tempered than they had been when working in practice rotas or alone.

While any group of GPs will contain a range of ability levels and skills, this potential weakness could be overcome in cooperatives because:

- GPs were less isolated and thus had more opportunities to learn from colleagues

- cooperatives provided a forum for educational meetings to address any general weaknesses or needs for more clinical knowledge.

> "For the district as a whole, quality has probably increased because doctors are less isolated. There is more dialogue. I think people are developing a better understanding of what other doctors do. Doctors are less resentful ... they are there to work ... but sometimes it has been terribly rushed and I think that may have been detrimental." (Fardoc, GP)

Lack of continuity of care was seen by some to reduce the quality of care. This applied to short-term as well as longer-term lack of continuity. For instance:

> "One of the advantages of being a GP [in the old system] was that you knew your patients and they knew you. To give advice – to say that if it's not better ring me back in a couple of hours – was easier to do when you were on-call all weekend because you could pop round in a couple of hours and see them. Now you can't do that because you won't be on, and feel reluctant to pass it on to another shift." (Countydoc, GP)

However, a more positive aspect to a change of provider was also noted. A 'new' GP with a fresh perspective might well succeed in identifying previously undiagnosed problems or suggesting a more effective form of treatment than had hitherto been tried.

The one problem that did not appear to have any saving graces was that of excessive workload. Where consultations were rushed and home visits delayed or reduced by queues of patients waiting to be seen at a centre, it was agreed that clinical care could suffer. This could happen at busy periods in any of the cooperatives, but in fact happened most frequently in Fardoc and Leaddoc.

The GPs interviewed rarely claimed that patients thought services had been improved. It is generally considered that patients lack the ability to judge clinical quality of care, and are more likely to judge a service on its accessibility, convenience, surgery environment and interpersonal factors. Restricted home visits, distant and possibly inadequate premises, and unknown doctors are therefore likely to contribute to a poorer service in their eyes.

Patterns of care – the logged data

Six of the seven cooperatives studied agreed to provide details of all consultations with patients over a 4-week period. The dates during which they logged consultations varied from site to site. The small research team involved could not have handled the patient surveys, which were based on random samples of these consultations, had they all recorded during the same period. Dates of logging were as follows:

- Smalldoc: Friday evening, 6 September to Friday morning, 4 October, 1996
- Cottdoc: Friday evening, 6 September to Friday morning, 4 October, 1996
- Leaddoc: Friday evening, 11 October, to Friday morning, 8 November, 1996
- Fourdoc: Friday evening, 11 November to Friday morning, 9 December, 1996
- Nursedoc: Monday evening, 17 February, to Monday morning, 17 March 1997.
- Fardoc: Friday evening, 7 February, to Friday morning, 7 March, 1997

In all cases, the hours during which calls were logged represented the opening hours of the cooperative involved and thus represent their definition of out-of-hours, rather than a standard definition.

A total of 9247 out-of-hours consultations took place in the six cooperatives. The distribution of these calls between four standard time periods is shown in *Table 11*. There were 187 calls where no time was recorded and these have therefore been excluded.

TABLE 11 *Timing of calls throughout the 4-week recording period*

Time of call	No. of calls
Every evening, 6.01 p.m. to 10 p.m.	3473 (38%)
Every night, 10.01 p.m. to 8 a.m.	2459 (27%)
Saturday, 11.01 a.m. to 6 p.m.	1041 (12%)
Sunday, 8.01 a.m. to 6 p.m.	2087 (23%)
Total	9060 (100%)

There was no evidence of differing call patterns between the six cooperatives. However, extrapolations from the number of logged contacts over 4 weeks within each cooperative do show differences in out-of-hours call rates per 1000 patients per annum, ranging from 116 to 250. Four have very similar rates (156–176). One is very low and one much higher. However, these figures must be treated with considerable caution. The cooperatives are operational during different time periods, covering between 12 and 14 hours for

TABLE 12 *Number of hours covered per week, recording period and calculated consultation rates*

	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc
No. of operational hours per week	109	103	105	102	108	114
Consultation rates	167/1000	116/1000	176/1000	160/1000[a]	156/1000	250/1000
Recording date	Sept/Oct	Sept/Oct	Oct/Nov	Nov/Dec	Feb/Mar	Feb/Mar

[a] *As Fourdoc covers variable numbers of patients, this is a mid-range estimate*

TABLE 13 *Action taken in response to calls within each cooperative*

Action taken	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
Telephone advise	133 (20%)	153 (38%)	958 (39%)	848 (43%)	557 (37%)	1017 (44%)	3666 (40%)
Home visit	297 (45%)	104 (26%)	918 (38%)	667 (34%)	161 (11%)	289 (13%)	2436 (26%)
Centre attendance	211 (32%)	143 (36%)	485 (20%)	405 (21%)	615 (41%)	902 (39%)	2761 (30%)
Other/missing information	13 (2%)	3 (< 1%)	74 (3%)	40 (2%)	160 (11%)	94 (4%)	384 (4%)
Total	654	403	2435	1960	1493	2302	9247

$\chi^2 = 1113.99; df = 15; p < 0.00001$

evening/night shifts and opening as early as 11 a.m. and as late at 1 p.m. on Saturdays. They thus cover between 102 and 114 hours per week for their members. They also recorded on different dates (though all were during the autumn or winter and none included any bank holidays). This information is presented in *Table 12*.

There were striking differences between some of the cooperatives in the way in which they dealt with callers, and these differences are set out in *Table 13*.

As *Table 13* shows, Smalldoc makes relatively little use of telephone advice. The great majority of their patients (77%) are seen by a GP, either at home or at the centre. The other cooperatives differ little in the extent to which they advise patients by telephone (37% to 44%) but show major differences in home visiting. Nursedoc and Fardoc, the two most recently formed cooperatives, undertake home visits in only 11% and 13% of cases, respectively, making more use of centre-based care. Leaddoc and Fourdoc make relatively little use of their centres in comparison with other cooperatives.

As well as the **ethos** of a particular cooperative, there are a number of geographical and organisational features that may be expected to contribute to the observed differences. These include the nature and size of the area served, the availability of drivers, the number of GPs on duty and the staff available at centres. Of patients who were **seen** by a GP rather than advised by telephone, Leaddoc, Fourdoc and Smalldoc saw the greatest proportions (58–66%) in their homes. While Fourdoc covers a large, predominantly rural area, each of its centres is responsible for a smaller area within it. There is just one GP on duty at each centre, with a driver but no reception cover. The centres are therefore locked up when they are out on home visits. Because home visits are unpredictable, the GPs' ability to arrange centre attendances is restricted.

While Smalldoc covers a small area and Leaddoc a large one, they are similar in that there is a GP on duty at the centre and mobile GPs specifically assigned to home visits during evenings and weekends. (Smalldoc also has somewhat inadequate centre facilities.) It seems that having defined home-visiting GPs may influence their response to calls.

Cottdoc has only one GP on duty at each centre and no receptionist cover during the evenings and night shifts but its centres do not need to be locked up, because they are in community hospitals. A total of 42% of the patients **seen** by a GP are visited at home.

For both Nursedoc and Fardoc, only 21–24% of the patients **seen** by a GP are seen in their homes. Both have support staff available at their centres, and both cover wide areas. Fardoc has two GPs on duty during the evening and weekend shifts and Nursedoc has at least two centre-based GPs at all times. It does not appear to make a difference that Nursedoc has no dedicated transport, while Fardoc does.

Of the 9247 calls logged, the patient's gender was noted in 7455 cases (81%). Males represented 43% of these patients and females 57%. The number and proportion of patients in each of six age ranges appears in *Table 14;* in 240 cases (2.6%) no age was recorded. While age ranges have been determined logically, it should be noted that groups do not cover the same number of years and therefore are not expected to be of equal size. Clearly, children under the age of 5 years constitute the greatest demand on the service. They represent 6.6% of the population of Great Britain but 25% of consultations. Children aged 5–15 years demand little more than those aged 16–39 years. Demand is very low from patients aged 40–65 years. Although it begins to pick up in patients aged 65–74 years, it is the very elderly (75 years and over) who, once again, make heavy use of the service, though not to the same extent as young children.

There were significant differences between age groups in the proportion of patients advised by telephone, attending a centre and receiving a home visit (*Table 15*). A much higher proportion of elderly patients were visited at home and few were asked to attend a centre. Children were less likely than other groups to be visited at home and more likely to attend a centre. It seems apparent that age is a factor in GPs' decisions on appropriate responses to calls, but differences in the nature and severity of illness between age groups will also be a contributory factor.

There were also differences in the action taken relative to the time of the patient's call (*Table 16*). Patients calling during night periods were more likely to receive a home visit than callers at other times and much less likely to be asked to attend a centre. Weekend daytime callers were more likely to be seen at a centre rather than receiving telephone advice or a home visit.

In addition to the clear differences between cooperatives in the way in which they responded to patients' calls, there were also differences in the outcomes of consultations. The proportion of patients receiving medication (either immediately or by prescription) averaged 33%, but ranged from 23% to 53%; the proportion advised to contact their own GP during normal surgery hours for follow-up care averaged 17%, but ranged from 13% to 36%. This was not apparently linked to any other features of cooperative care. For instance, there was no link between the proportion of patients seen rather than advised by telephone and the prescribing rate. It seems to be simply another example of the variability to be found in general practice.

Only one cooperative (Leaddoc) regularly arranged follow-up home visits by the patient's own GP (4% of cases compared with 1% or less in other cooperatives).

TABLE 14 *Age group of patients consulting compared with their distribution in the population of Great Britain*[*]

Age group (years)	No. of consultations	Distribution in population
0–4	2230 (25%)	6.6%
5–15	1251 (14%)	13.5%
16–39	2384 (27%)	34.6%
40–64	1397 (15%)	29.2%
65–74	584 (7%)	9.0%
75+	1161 (13%)	7.1%
Total	9007 (100%)	100%

[*] *Office of Population Censuses and Surveys, 1991 Census*

TABLE 15 *Age of patient by action taken*

Age group (years)	Telephone advice	Home visit	Centre attendance	Other	Total
0–4	932 (42%)	324 (15%)	919 (41%)	55 (3%)	2230
5–15	516 (41%)	176 (14%)	539 (43%)	20 (2%)	1251
16–39	1058 (44%)	476 (20%)	752 (32%)	98 (4%)	2384
40–64	501 (36%)	442 (32%)	379 (27%)	75 (5%)	1397
65–74	197 (34%)	286 (49%)	65 (11%)	36 (6%)	584
75+	357 (31%)	658 (57%)	61 (5%)	85 (7%)	1161
Total	3561 (40%)	2362 (26%)	2715 (30%)	369 (4%)	9007

$\chi^2 = 1363.27$; $df = 15$; $p < 0.00001$ *(240 missing cases)*

TABLE 16 *Time of patient's call by action taken*

Time of call	Telephone advice	Home visit	Centre attendance	Other	Total
Every evening, 6.01 p.m. to 10 p.m.	1567 (45%)	815 (23%)	967 (28%)	124 (4%)	3473 (38%)
Every night, 10.01 p.m. to 8 a.m.	1094 (45%)	861 (35%)	373 (15%)	131 (5%)	2459 (27%)
Saturday, 11.01 a.m. to 6 p.m.	365 (35%)	239 (23%)	393 (38%)	44 (4%)	1041 (12%)
Sunday, 8.01 a.m. to 6 p.m.	597 (29%)	492 (24%)	924 (44%)	74 (3%)	2087 (23%)
Total	3623 (40%)	2407 (27%)	2657 (29%)	373 (4%)	9060 (100%)
$\chi^2 = 567.84$; $df = 9$; $p < 0.00001$ (187 missing cases)					

Just under 10% of patients were referred to hospital, and here the range was less variable (8–13%). Cottdoc referred most frequently, and this may be related to their location in community hospitals with casualty/minor injury facilities. Referral to other agencies, predominantly district nursing, occurred in only 6% of cases overall, but was most prevalent in Nursedoc (11%). It may be that having nurses to triage calls results in greater emphasis on the role that nurses can play in treating patients.

GPs were asked to classify the calls that they handled into one of three categories. These categories were originally designed by Lockstone and used in five studies of out-of-hours care:[11–15]

- a genuine emergency, in which the patient's life is threatened or in which a delay in receiving medical attention could result in unnecessary harm or suffering
- an unnecessary but reasonable call in which the patients clinical condition did not represent a genuine emergency but was understandable in the light of the nature of the symptoms, the patient's past history or their level of anxiety
- an unreasonable call, fitting neither of the above categories, ranging from the wholly frivolous to minor, self-limiting conditions, which could easily have waited until regular surgery hours.

Many GPs, however, were unwilling to make this distinction. Only 6186 contacts (67%) were classified. Of these, 23% were judged to be genuine emergencies. The remainder were either unnecessary but reasonable in the circumstances (58%) or unreasonable (19%).

There were variations between cooperatives both in the extent to which members were prepared to classify calls and in their use of the three categories (*Table 17*).

Clearly, GPs differ considerably in their perceptions of the nature and urgency of calls. However, it is interesting to note that judgements were significantly related to patients' ages. The proportion judged to be genuine emergencies rose steadily with increasing age, from 12% of children aged 0–4 years to 36% of patients over 75 years. Night calls were more likely to be classed as genuine emergencies (30% compared with 17–21% at other times), as were home visits (34% compared with 12% of telephone advice calls and 21% of centre attendances).

Calls judged to be unreasonable were more evenly distributed among age groups but fell into two broad groupings: 21–24% for the three age groups under 40 years and 14–15% for the three age groups of 40 years or older. Patients attending a centre were less likely to be judged to be making

TABLE 17 *Classification of calls within each cooperative*

Classification	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
Proportion classified	69%	93%	51%	76%	48%	83%	67%
Emergency	162 (36%)	190 (51%)	72 (6%)	553 (37%)	149 (21%)	270 (14%)	1396 (23%)
Reasonable	255 (57%)	160 (43%)	568 (45%)	748 (50%)	505 (70%)	1352 (71%)	3588 (58%)
Unreasonable	31 (7%)	24 (6%)	611 (49%)	184 (12%)	63 (9%)	289 (15%)	1202 (19%)
$\chi^2 = 1388.74$; $df = 10$; $p < 0.00001$							

unreasonable demands than those advised by telephone or visited at home (15% compared with 22% and 21%, respectively). Interestingly, of all the calls judged to be unreasonable, 34% were home visits, indicating that patients' initial descriptions of their problems were inaccurate or misleading.

It is common to use promptness in responding to a patient's call as a measure of the quality of care offered. In fact, this is somewhat dubious. At busy times it is likely that the duty doctors will have to prioritise calls on the basis of clinical need, and the accuracy of their judgment will be a more important indicator of quality than the proportion of patients seen within a given target time. However, as access and distances covered are important and worrying considerations, particularly for more rural cooperatives, response times are reported in *Table 18*.

Of the patients advised by telephone, 33% received advice immediately. Differences between cooperatives are very much a product of their communication systems and staffing. Calls to Smalldoc go directly to the cooperative and are frequently answered by the on-duty GP. Thus 58% of their telephone advice is given immediately, and 70% of patients are advised within 5 minutes. Calls to Nursedoc also go directly to the cooperative and the triage nurse gives immediate telephone advice to callers where appropriate. Almost all (97%) receive immediate advice.

Because Fourdoc employs a message-handling service, they re-call patients in response to messages received. It is extremely rare for patients to be re-contacted immediately, and only 6% of their patients receive telephone advice within 5 minutes of the message being received. While Cottdoc also employs a message-handling service, they are in fact much more prompt in their response than Fourdoc. In fact, they also respond faster than Fardoc, who employ their own receptionists/telephonists. Fardoc's on-duty GPs have a very high workload, particularly in terms of centre attendances. Patients are rarely put straight through to a GP, and GPs may find it difficult to disengage from face-to-face consultations in order to return patients' calls.

Leaddoc's response times are closest to the average for all cooperatives. A relatively high proportion of patients are put through to a GP immediately (42%) and just over half are dealt with within 5 minutes.

There were also striking differences between some of the cooperatives in response times for home visits, particularly at either end of the scale. These differences are shown in *Table 19*.

Smalldoc had the fastest response times to home visits, with a third of their patients seen within 15 minutes of their call. Their compact geographical area and the fact that two GPs are

TABLE 18 *Time lag between receipt of call and action taken: telephone advice (cumulative percentages)*

Time lag (mins)	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
0–5	70	67	52	6	98	32	48
0–10	75	89	64	26	99	56	63
0–15	79	92	73	47	99	72	74
0–30	85	98	86	86	100	88	89
0–60	93	98	95	98	160	97	97
$\chi^2 = 2265.95; df = 30; p < 0.001$							

TABLE 19 *Time lag between receipt of call and action taken: home visits (cumulative percentages)*

Time lag (mins)	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
0–15	33	9	7	7	9	10	11
0–30	67	43	32	34	27	33	38
0–60	89	82	65	75	56	69	72
0–120	99	97	91	96	84	92	93
$\chi^2 = 220.29; df = 20; p < 0.001$							

TABLE 20 *Time lag between receipt of call and action taken: centre attendance (cumulative percentages)*

Time lag (mins)	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
0–15	16	5	10	17	8	11	11
0–30	48	37	31	39	32	32	34
0–60	77	81	66	72	71	76	73
0–120	94	97	88	94	95	96	94
$\chi^2 = 91.87; df = 20; p < 0.001$							

on duty for all but night periods (one of whom is mobile and designated as the home-visit GP) undoubtedly influences their ability to respond promptly. Nursedoc has a large area to cover and is actively trying to restrict home visits to a minimum. A slow response time to low-priority home visits may be part of their strategy. Certainly, nearly 16% of their home visits take over 2 hours to complete.

Delays were most likely during the daytime on Sundays, when only 60% of callers were seen within an hour and 14% waited in excess of 2 hours.

The pattern of response times for centre attendances is very similar overall to that for home visits. To some extent, centre attendance times are in the hands of patients as much as GPs. While some will be given definite appointment times, and there may be a queue of patients at the centre, their own delay in leaving home will also contribute to the elapsed time. Only Smalldoc (and to a lesser extent Cottdoc) patients experienced greater delays for centre attendance than for home visits. However, Smalldoc remained among the most prompt in seeing patients. Fewer Nursedoc patients attending the centre experienced lengthy delays and more Fourdoc patients attending the centre were seen very quickly compared with patients receiving home visits.

Delays were greatest during weekend daytimes, particularly on Sundays. While 83% of evening callers were seen within an hour, only 61% of Sunday callers were seen within that time.

Although they highlight differences between individual cooperatives, *Tables 18–20* lead us to question what is an adequate response time for each form of care. While very few patients waited longer than an hour for telephone advice, it cannot be assumed that telephone advice always relates to minor problems. Hopefully, urgent cases, for instance where the patient is advised to summon an ambulance, fall into the rapid-response categories, but this cannot be assumed. There is insufficient data to explore this issue.

Over a quarter of patients wait longer than an hour for a home visit. While there will be some home visits made on social grounds and others where the patient has insisted on a visit despite advice to the contrary, this finding also merits further investigation.

Chapter 7

Results – patients' expectations and experiences

Response rates

Response rates to the postal survey of patients conducted in six of the seven cooperatives ranged from 56% to 71%, based on the number of questionnaires delivered by the Post Office. Respondents were broadly representative of all consulters in terms of their age and sex, with the exception of those aged over 75 years who were under-represented (13% of logged contacts but 8% of respondents). This is not unusual in patient surveys, where the elderly are a group known to be difficult to reach.

In cases where patients were children aged under 16 years, questionnaires were sent to the person who had contacted the cooperative on the child's behalf, normally a parent.

In comparison with the logged data, patients who received only telephone advice were under-represented (28% of respondents but 40% of logged contacts). Conversely, patients attending a centre were over-represented (40% of respondents but 30% of logged consultations). While there was little personal contact between the researchers and the patients sampled, a small number of those selected telephoned the research centre with queries. In all cases, they were concerned about their selection because they had **not** had an out-of-hours consultation. In all cases, it transpired that they had received telephone advice, which they did not view as a proper consultation. It thus seems likely that this reasoning has led to poorer response rates from this group. However, as these respondents were broadly representative in terms of their age and sex, it is apparent that it was the nature of the consultation rather than the personal characteristics of the patient that influenced response. Given that patients were asked to complete different sections of the postal questionnaire dependent upon the type of service they received, and that sections were analysed separately, this should not bias reported satisfaction levels. There was, for instance, no general measure of satisfaction encompassing all types of service delivery, where under-representation of patients receiving telephone advice would have biased satisfaction levels in an upward direction.

Comparison of expectations and experiences

In the postal questionnaire conducted at six of the seven sites, patients were asked what they expected to happen when they contacted a doctor after the surgery was closed. In all cooperatives except one, the most frequently expressed expectation was for a home visit from a doctor. Overall, 37% of patients expected to receive a home visit, but there were significant differences between cooperatives. As few as 24% (Nursedoc) and as many as 51% of patients (Smalldoc) shared this expectation.

Only 15% of patients expected to be asked to attend a centre, but again there were significant differences between cooperatives, ranging from just 8% of patients in Cottdoc up to 26% of patients in Fardoc. In fact, Cottdoc's very low proportion of patients expecting to attend a centre may be related to the difficulty some obviously experienced in distinguishing between the GP services and the casualty units in which they are based. A total of 14% of their patients expected to be asked to attend casualty, which is far higher than in other cooperatives.

Expectations of telephone advice (22% of patients) were less variable, with a range of 16% to 27%.

Patients' expectations within each cooperative are set out in *Table 21,* and this demonstrates that a sizeable minority (20%) were unsure what to expect. Either they said directly that they did not know what to expect (11%) or they selected two or more options from the list of possibilities (9%).

Patients' answers should reflect a mixture of their wishes, their past experiences and their knowledge of how out-of-hours care is organised in their area.

Interestingly, there is no statistically significant relationship between patients' expectations and the number of times they had used the emergency service before. For instance, 13% of first-time users expected to be asked to attend a centre, as did 14% of patients who had used the service five times or more. (Past use is very much a product

TABLE 21 *Respondents' expectations*

Expectation	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
Given advice or information by telephone	45 (18%)	34 (16%)	61 (26%)	48 (24%)	66 (27%)	50 (23%)	304 (22%)
Asked to visit GP at centre	32 (13%)	17 (8%)	25 (11%)	22 (11%)	50 (21%)	55 (26%)	201 (15%)
Visited at home by GP	130 (51%)	84 (39%)	90 (39%)	81 (41%)	59 (24%)	60 (28%)	504 (37%)
Advised to go to A&E/casualty	10 (4%)	31 (14%)	2 (1%)	8 (4%)	18 (7%)	5 (2%)	74 (5%)
Unsure or mixed expectations	39 (15%)	49 (23%)	54 (23%)	41 (21%)	49 (20%)	44 (21%)	276 (20%)
Total	256	215	232	200	242	214	1359
$\chi^2 = 128.76; df = 20; p < 0.00001$ *(31 missing cases)*							

TABLE 22 *Relationship between patients' expectations and their initial experiences (row percentages appear next to actual numbers of consulters; column percentages appear below)*

Expectation	Initial experiences					
	Telephone advice	Attend centre	Home visit	Attend A&E	Other	Total
Given advice or information by telephone	**157 (52%)** (50%)	79 (26%) (15%)	36 (12%) (11%)	18 (6%) (14%)	15 (5%) (22%)	305 (22%)
Asked to visit GP/attend centre	12 (6%) (4%)	**175 (88%)** (33%)	4 (2%) (1%)	4 (2%) (3%)	4 (2%) (6%)	199 (15%)
Visited at home by GP	54 (11%) (17%)	140 (28%) (27%)	**249 (49%)** (74%)	36 (7%) (28%)	25 (5%) (37%)	504 (37%)
Advised to attend A&E/casualty	13 (17%) (4%)	15 (19%) (3%)	6 (8%) (2%)	**40 (51%)** (31%)	5 (6%) (8%)	79 (6%)
Unsure or mixed expectations	76 (27%) (24%)	117 (42%) (22%)	40 (14%) (12%)	30 (11%) (23%)	**18 (6%)** (27%)	281 (21%)
Total	312 (23%)	526 (39%)	335 (25%)	128 (9%)	67 (5%)	1368
$\chi^2 = 710.66; df = 16; p < 0.00001$ *(25 missing cases)*						

of the age of the cooperative. First time users represent 22% of patients in Leaddoc, formed in 1992, but 41% of patients in Nursedoc, formed in 1996. Conversely, 20% of Leaddoc's patients had used the service five or more times, compared with just 5% of Nursedoc's patients.)

It is the two most recently formed cooperatives, whose patients were least likely to have experienced cooperative care, that had the lowest expectation of home visiting and the highest expectation of centre attendance. The fact that Nursedoc and Fardoc were the latest to run information campaigns thus suggests that it may be knowledge of how the service operates that is most important in forming expectations.

At the level of individual patients, expectations were related to what subsequently happened. The relationship was strongest for centre attendance. A total of 88% of those who had expected to be asked to attend had their expectations met. However, only 33% of centre attendances were expected. The relationship between expectations and experiences is presented in *Table 22*. It is important to recognise that patients' retrospective recounting of their expectations may well have been influenced by what actually happened.

As well as being the two cooperatives with the most recent information campaigns, Nursedoc and Fardoc were also the two sites offering the least home visits. This is not surprising since, unlike those established earlier, decreasing the number of home visits was one of their initial aims. Earlier cooperatives were less concerned, in part because only home visits attracted night fees at that time, but also because the terms and conditions of service for GPs did not make it clear that requests for clinically unnecessary home visits could be refused. Knowledge of

service operation based on past experiences may have contributed to the heightened expectations of receiving a home visit at two of the three sites offering the most home visits.

Only a partial relationship existed for centre attendances. While Nursedoc's and Fardoc's patients were more likely to expect and receive centre attendances, this was not consistent across other centres. For instance, the lowest expectation of centre attendance (8%) occurred in Cottdoc, which has the third highest rate of centre attendance (46%). While the possible contribution of patient confusion between GP and A&E services has already been discussed, it is also the case that only 11% of Leaddoc's patients expected to visit a centre, whereas 39% were asked to do so.

Patients' experiences in each cooperative are presented in *Table 23*. It should be borne in mind that not all patients who were asked to attend a centre agreed to do so, and therefore later tables dealing with patients' experiences in detail are based on slightly different figures.

Relationship between patients' expectations, age and time of call

It was made clear to patients that there was no compulsion for them to answer any questions or complete any sections of the questionnaire if they did not wish to do so. A substantial minority (16%) chose not to complete the section covering personal information, including the patient's age.

Among those who did provide ages, there was a clear relationship between expectations and the age of the patient. Broadly, home visits were expected by the elderly. There was very little expectation that a centre visit would be offered. Only seven patients among 189 aged 65 years or over anticipated they would be asked to attend a centre. There was also less uncertainty about what patients over 65 years might expect compared with other groups.

For those aged 65–74 years, there was a low expectation of telephone advice, though this increased for those aged 75 years or more (*Table 24*).

TABLE 23 *Respondents' initial experiences*

Experience	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
Given advice or information by telephone	29 (11%)	51 (24%)	55 (23%)	58 (29%)	71 (29%)	51 (24%)	315 (23%)
Asked to visit GP at centre	112 (43%)	100 (46%)	93 (39%)	58 (29%)	117 (48%)	127 (59%)	607 (44%)
Visited at home by GP	103 (40%)	51 (24%)	77 (33%)	67 (33%)	22 (9%)	25 (12%)	345 (25%)
Advised to go to A&E/casualty	9 (4%)	7 (3%)	4 (2%)	9 (5%)	19 (8%)	5 (2%)	53 (4%)
Something else	5 (2%)	8 (4%)	7 (3%)	9 (5%)	16 (7%)	6 (3%)	51 (4%)
Total	258	217	236	201	245	214	1371
$\chi^2 = 143.27; df = 20;$ p < *0.00001 (19 missing cases)*							

TABLE 24 *Relationship between patients' expectations and age*

Expectation	Age group (years)					
	0–4	5–14	15–64	65–74	75+	Total
Given advice or information by telephone	68 (22%)	56 (29%)	108 (24%)	12 (14%)	21 (20%)	265 (23%)
Asked to visit GP at centre	60 (19%)	31 (16%)	74 (16%)	5 (6%)	2 (2%)	172 (15%)
Visited at home by GP	97 (31%)	57 (29%)	146 (32%)	52 (61%)	65 (63%)	417 (36%)
Advised to attend A&E/casualty	18 (6%)	8 (4%)	25 (6%)	7 (8%)	3 (3%)	61 (5%)
Unsure or mixed expectations	69 (22%)	42 (22%)	101 (22%)	10 (12%)	12 (12%)	234 (20%)
Total	312	194	454	86	103	1149
$\chi^2 = 80.35; df = 16;$ p < *0.00001*						

There was also a clear relationship between expectations and the time of day at which the call was made. Patients calling at night were least likely to anticipate being asked to come to a centre (11%, compared with 21% of daytime and 18% of evening callers) and most likely to expect a home visit (40% compared with 30–32% of other callers). These differences were statistically significant ($\chi^2 = 23.11$; df = 8; $p = 0.003$).

Patients' experiences of telephone advice

A total of 389 patients were given advice over the telephone (including those who were advised to attend a casualty unit or A&E department). These patients were asked how they felt about the idea of doctors advising patients by telephone. Only 37% said they were 'very happy' with the idea. Nearly a quarter were 'not very' or 'not at all' happy with the idea. There were no significant differences between cooperative sites.

The great majority (71%) said they had been able to speak to a GP or nurse within 15 minutes of their original telephone call, but here there were significant differences between sites. Based upon patients' recall of the events, Nursedoc with its A&E nurse triage system had the best response-time record. Smalldoc patients also claimed they had experienced little delay. Fourdoc patients, with a sub-contracted message-handling service, no centre reception staff and a single GP on duty for each centre covering attendances **and** home visits, claimed to have experienced the longest delays.

Table 25 presents the differences in response times from the viewpoint of patients. It should be borne in mind that cooperatives also vary in the proportion of their patients who receive telephone advice. Thus, only 20% of Smalldoc's logged contacts received telephone advice, compared with 43% and 44% of the patients of Fourdoc and Nursedoc, respectively.

A comparison with the logged data shows that, although Cottdoc GPs were prompt to respond to calls once they had been notified by the message-handling service (92% within 15 minutes), patients were apparently experiencing longer overall delays. In contrast, Fourdoc's message-handling service appears to have been relaying messages more promptly, with the delay in re-calling patients occurring at the cooperative centres.

Most telephone consultations were short. Only 5.4% exceeded 10 minutes, in the patients' estimations. Once again there were significant differences between sites. Smalldoc, with its low proportion of telephone consultations, apparently spent longer advising individual patients than did other cooperatives. Nursedoc ranked second. Cottdoc patients claimed to have had the most short and the fewest long conversations (*Table 26*).

Despite differences in telephone consultation length, differences in patients' reactions to telephone advice between cooperatives did not reach levels of statistical significance. This is, of course, an important finding for Nursedoc whose patients

TABLE 25 *Time taken to speak to a doctor/nurse in each cooperative*

Time log (mins)	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
≤ 15	37 (82%)	37 (62%)	39 (64%)	34 (52%)	83 (94%)	43 (65%)	273 (71%)
15–30	5 (11%)	19 (32%)	13 (21%)	22 (33%)	5 (6%)	19 (29%)	83 (22%)
> 30	3 (7%)	4 (7%)	9 (15%)	10 (15%)	0 (0%)	4 (6%)	30 (8%)
Total	45	60	61	66	88	66	386
$\chi^2 = 49.61$; *df = 10*; p < *0.00001 (three missing cases)*							

TABLE 26 *Time spent advising the patient by telephone in each cooperative*

Time log (mins)	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
< 5	15 (34%)	39 (66%)	38 (61%)	39 (57%)	45 (51%)	41 (64%)	217 (56%)
5–10	21 (48%)	19 (32%)	22 (36%)	25 (37%)	41 (46%)	20 (31%)	148 (38%)
> 10	8 (18%)	1 (2%)	2 (3%)	4 (6%)	3 (3%)	3 (5%)	21 (5%)
Total	44	59	62	68	89	64	386
$\chi^2 = 26.36$; *df = 10*; p < *0.01 (three missing cases)*							

were no less satisfied with the advice they received than those who had been advised predominantly by GPs. Nursedoc's nurses both triage calls and, where they judge it appropriate, provide telephone advice to patients themselves. Nearly 80% of telephone advice calls are handled by the nurses alone.

Nonetheless, it appeared that longer telephone consultations were more acceptable than short ones. Patients were asked how reassured they had felt by the doctor or nurse's advice. Of those whose consultation had lasted less than 5 minutes, only 46% said 'a lot', compared with 86% of those whose consultation had exceeded 10 minutes. The proportion of patients saying 'not at all' in each of these categories respectively, fell from 24% to none (*Table 27*).

Similarly, patients' satisfaction with the advice they received by telephone rose with increasing duration of call (*Table 28*).

From the overall levels of satisfaction, it is clear that telephone advice is not popular with a significant minority of patients. As reported earlier, only 37% were 'very happy' with the idea of doctor's giving advice over the telephone. Only 44% were 'very happy' with the advice they received, though 61% said they had been reassured 'a lot'. In later sections, satisfaction with centre attendances and with home visits will be reported, which will clearly show that telephone advice is the least popular form of care.

There was a strong relationship between expectations and satisfaction levels. Of the patients who had expected telephone advice, 63% were 'very satisfied' and only 4% 'not very' or 'not at all satisfied'. Of those who had expected a home visit only 17% were 'very satisfied' with the advice they received and the majority (53%) expressed dissatisfaction. The situation was similar for the small number who had expected to attend a centre. Eight of this group of 16 expressed dissatisfaction with telephone advice ($\chi^2 = 108.04$; df = 8; $p < 0.00001$).

Patients' attitudes towards and experiences of centre attendance

Regardless of whether they personally had been asked to attend a centre, all patients were asked how they felt, in general, about patients being invited to come in and see a doctor outside surgery hours. This was an open-ended question, with no checklists or prompts provided. A total of 1176 respondents answered this question, giving a total of 1865 codeable responses. Of these responses, 1396 (75%) were negative. Respondents believed that they, or patients in general, should not be asked to attend if:

- the patient was too ill to travel (445 cases)
- there was no access to transport (297)
- there were (other) young children in their care (101)
- the patient was a sick baby or child (100)
- the centre was too far away or inaccessible (92)
- the doctor's attitude was poor and they felt pressurised to attend (72)
- they were not the type to phone unless they needed a visit (63)
- if was inconvenient for them to attend (no further explanation given) (59).

Each of the reasons advanced above was given by at least 5% of the patients who responded. These and other less-frequently cited responses point to three overall reasons against centre attendance:

TABLE 27 *Reassurance provided by telephone advice by duration of call (column percentages appear below)*

Duration of call (mins)	How reassured?			
	Very	Fairly	Not very/ not at all	Total
< 5	99 (46%) (42%)	63 (29%) (70%)	52 (24%) (87%)	214 (56%)
5–10	117 (79%) (50%)	24 (16%) (27%)	8 (5%) (13%)	149 (39%)
> 10	18 (86%) (8%)	3 (14%) (3%)	0 (0%) (0%)	21 (5%)
Total	234 (61%)	90 (23%)	60 (16%)	384 (100%)

$\chi^2 = 48.31$; df = 4; p < 0.00001 (five missing values)

TABLE 28 *Patients' satisfaction with telephone advice by duration of call (column percentages appear below)*

Duration of call (mins)	How satisfied?			
	Very	Fairly	Not very/ not at all	Total
< 5	71 (33%) (42%)	73 (34%) (55%)	73 (34%) (88%)	217 (56%)
5–10	84 (57%) (50%)	54 (36%) (41%)	10 (7%) (12%)	148 (38%)
> 10	14 (70%) (8%)	6 (30%) (5%)	0 (0%) (0%)	20 (5%)
Total	169 (44%)	133 (35%)	83 (22%)	385 (100%)

$\chi^2 = 49.24$; df = 4; p < 0.00001 (four missing values)

TABLE 29 *Feelings on being asked to attend centre in each cooperative*

	Smalldoc	Cottdoc	Leaddoc	Fourdoc	Nursedoc	Fardoc	Total
Quite happy to attend	49 (54%)	37 (62%)	52 (63%)	38 (69%)	63 (56%)	85 (73%)	324 (63%)
Agreed but unhappy	29 (32%)	16 (27%)	12 (15%)	11 (20%)	44 (39%)	23 (20%)	135 (26%)
Refused, wanted home visit	12 (13%)	7 (12%)	18 (22%)	6 (11%)	6 (5%)	8 (7%)	57 (11%)
Total	90	60	82	55	113	116	516
$\chi^2 = 33.8; df = 10; p < 0.0003$							

- the belief that people who call the doctor out-of-hours are too ill to travel
- the fact that the patient and others around him/her will be inconvenienced, particularly by the need to arrange transport and child care
- the belief that patients should have the option of being visited at home.

The following reasons were the most common among the positive responses. Patients would not object to being asked to attend the centre because:

- no specific reason given (179 cases)
- the service is fast and accessible (135)
- it is an efficient use of GP time, facilitating home visits where needed (61).

No other reasons were advanced by 5% or more of the patients who responded. In particular, few appeared to recognise the advantages that GPs frequently cite for centre care. Only 21 patients (< 2%) said they would feel less guilt about calling on a GP if they attended a centre and only 12 (1%) suggested that the centres offered better facilities and equipment.

Those patients who reported that they had been asked to attend a centre were asked how they felt about this. Two problems arose with this question. Not all patients chose to answer it, despite some non-responders later giving reasons for not wishing to attend. In addition, the researchers had failed to anticipate the confusion some patients, particularly those of Cottdoc (37 cases) and Smalldoc (35 cases), obviously experienced in distinguishing between A&E/casualty units and primary care centres. Those patients who wrongly believed they'd been asked to attend an A&E department followed questionnaire routing instructions to avoid the question on their feelings.

Thus, of 607 patients asked to attend a centre, only 516 gave their views on this. There were significant differences between sites and a clear relationship between patients' expectations and their feelings (*Tables 29* and *30*).

TABLE 30 *Patients' expectations and their feelings about attending a centre*

Expectation	Feelings about attending			
	Quite happy	Agreed but unhappy	Refused	Total
Home visit	44 (30%)	64 (43%)	41 (28%)	149
Telephone advice	53 (74%)	16 (22%)	3 (4%)	72
Centre attendance	134 (84%)	22 (14%)	3 (2%)	159
A&E attendance	18 (86%)	3 (14%)	0 (0%)	21
No/mixed expectations	75 (66%)	29 (26%)	9 (8%)	113
Total	324 (63%)	134 (26%)	56 (11%)	514
$\chi^2 = 123.86; df = 8; p < 0.00001$ *(two missing cases)*				

Fardoc patients were least resistant to attending, despite having the longest average travelling distance. The highest levels of resistance were found in Smalldoc and Nursedoc. Smalldoc patients have the highest expectation of a home visit and Smalldoc GPs also offer the highest proportion of home visits, which may account for patients' reluctance to attend. However, this is not the case with Nursedoc. Their patients have the lowest expectations and the lowest proportion of home visits. It may simply be that patients are less willing to accept the judgement of a nurse that attendance is appropriate. While expressing a high level of unhappiness, Nursedoc's patients were the least likely to refuse to attend. This distinction belongs to Leaddoc, for no readily apparent reason.

In all, 208 patients listed 371 reasons why they did not want to visit the GP at a centre. These followed much the same pattern as patients' general opinions on centre attendance. They (or their children) were too ill to attend (91 cases; 44%); they lacked access to transport (65 cases;

31%); they had the needs of (other) young children to consider (57 cases; 27%); and the centre was too far away (39 cases; 19%). Two additional, less-frequently selected categories were also associated with travel arrangements: poor local transport (19; 9%); and the financial cost of attending (21; 10%).

It was abundantly clear that reluctance to attend was associated with the patients' original expectations, with those who had expected a home visit least happy with attending a centre.

A final total of 560 respondents had eventually attended a centre. Of these, 516 (92%) travelled by private car, 16 (3%) walked and 25 (5%) came by taxi. Less than 1% used public transport. A total of 16% said they had experienced some problems in getting to the centre, predominantly related to illness making travel difficult and the complication of having young children in their care. Distance and cost were less important factors. For those patients who felt able to estimate the cost of their journey, only 22 (5%) had costs exceeding £5.00. A total of 90% had costs of £3 or less. Journey times were generally quite short, with nearly 80% of patients taking 15 minutes or less. In only 2% of cases did journeys exceed half an hour. Waiting times at the centre were also generally short. A total of 72% were seen within 15 minutes of their arrival, though 9% did have to wait for 30 minutes or more.

The log sheet data revealed considerably longer delays between the patient's initial contact with the service and seeing a GP than patients' estimates of the journey and waiting times would suggest (see *Table 20*; 34% seen within 30 minutes of their initial call, and 27% with delays exceeding an hour). It would thus seem that delays in leaving home to travel to the centre played a large part.

A number of questions were used to assess patients' levels of satisfaction with the service they received. Results are summarised in *Table 31*. Satisfaction levels for centre attendance are considerably higher than for telephone advice, where only 44% of patients claimed to be 'very satisfied' and 22% claimed to be 'not very satisfied' or 'not satisfied at all'.

Satisfaction with waiting times at the centre was significantly related to length of waiting time, with only one of the patients who expressed dissatisfaction having been seen within 15 minutes and the majority (63%) having waited in excess of 30 minutes ($\chi^2 = 269.18$; df = 6; $p < 0.00001$). Less

TABLE 31 *Measures of patients' satisfaction with centre attendance*

	Very	Fairly	Not very/ not at all	Total
How satisfied?				
With reception	378 (68%)	146 (26%)	33 (6%)	557
With waiting time	382 (68%)	150 (27%)	27 (5%)	559
With treatment	356 (64%)	164 (29%)	37 (7%)	557
How worried about health?				
Before attending centre	244 (44%)	265 (48%)	47 (9%)	556
After attending centre	64 (12%)	187 (34%)	299 (54%)	550
	Yes	**No**	**Don't know**	**Total**
Prepared to attend again for similar problem	464 (84%)	37 (7%)	54 (10%)	555

obviously, satisfaction with treatment was related to patients' original expectations, in that 46% of those dissatisfied had expected a home visit. Similarly, 49% of the small number who said they would not be prepared to travel again for a similar problem came from the group who had expected a home visit.

Levels of anxiety were considerably reduced following centre attendance. Though nearly a quarter of the 'very worried' remained so, in only six cases were patients more worried when they left than they had been before they arrived (*Table 32*). This table leads us to ask the question why nearly 10% of patients who claimed to be not very worried or not worried at all contacted the doctor in the first place!

Patients' experiences of home visits

A total of 404 respondents eventually received a home visit. A number of questions were used to assess patients' levels of satisfaction with the service they received. Results are summarised in *Table 33*.

Patients visited at home were less satisfied with waiting times than those attending a centre, though their satisfaction with the treatment received was very similar. They were more worried about their health problem both before and after the visit, which would seem to indicate that home visits were being paid to the more seriously ill. Although over half would want a home visit again in similar circumstances, 16% said they would be prepared to attend a centre instead, and 31% said they wouldn't mind either way.

TABLE 32 *Comparison between patients feelings about their health problem before and after attending a centre*

	After seeing the GP				
Before seeing the GP	**Very worried**	**Fairly worried**	**Not very worried**	**Not worried at all**	**Total**
Very worried	59 (24%)	105 (43%)	65 (27%)	13 (5%)	242 (44%)
Fairly worried	4 (2%)	80 (31%)	133 (51%)	42 (16%)	259 (47%)
Not very/not at all worried	1 (2%)	1 (2%)	25 (53%)	20 (43%)	47 (9%)
Total	64 (12%)	186 (34%)	223 (41%)	75 (14%)	548

$\chi^2 = 143.43$; df = 6; p < 0.00001 (12 missing cases)

TABLE 33 *Measures of patient satisfaction with home visits*

	Very	**Fairly**	**Not very/ not at all**	**Total**
How satisfied?				
With waiting time	205 (52%)	150 (38%)	41 (10%)	396
With treatment	267 (66%)	105 (26%)	31 (8%)	403
How worried about health?				
Before visit	252 (62%)	138 (34%)	14 (4%)	404
After visit	81 (21%)	168 (43%)	144 (37%)	393
	Home visit	**Centre**	**Either**	**Total**
Future preference if similar problem	205 (53%)	63 (16%)	119 (31%)	387

Satisfaction with waiting times was significantly related to the patients' estimates of the length of time it took the doctor to arrive, with 93% of the patients seen within 15 minutes saying they were 'very satisfied' and none expressing dissatisfaction ('not very' or 'not at all' satisfied). For patients who said they had waited more than an hour, only 10% were 'very satisfied' and 44% were 'not very' or 'not at all' satisfied ($\chi^2 = 142.15$; df = 6; $p < 0.00001$).

Satisfaction with treatment was not related to patients' prior expectations, but this is not surprising because over 70% of those visited had been expecting a home visit, with a further 13% being unsure what to expect.

There were no statistically significant differences between sites in satisfaction with waiting times and treatment, levels of anxiety before being seen, or future preferences. There were, however, significant differences in anxiety levels after being visited at home, as *Table 34* shows.

It is important to remember when interpreting this table that there are very different levels of home visiting between different cooperatives. Nursedoc and Fardoc make relatively few home visits and thus a small number of patients can make a large difference to their results. Smalldoc visits a relatively high proportion of its patients, and thus the views of a small number make less impact. Nonetheless, it appears that Nursedoc's patients were the least reassured and Leaddoc's patients the most reassured by the treatment they received.

Despite these results levels of anxiety were obviously considerably reduced following a home visit. Although 32% of the 'very worried' remained so, in only two cases were patients more worried than they had been before the doctor arrived (*Table 35*).

TABLE 34 *Patients' feelings about their health problem following a home visit*

	Smalldoc	**Cottdoc**	**Leaddoc**	**Fourdoc**	**Nursedoc**	**Fardoc**	**Total**
Very worried	19 (17%)	18 (32%)	13 (14%)	13 (18%)	12 (39%)	6 (21%)	81 (21%)
Fairly worried	52 (46%)	23 (40%)	33 (36%)	38 (54%)	13 (42%)	9 (32%)	168 (43%)
Not very/not at all worried	42 (37%)	16 (28%)	47 (51%)	20 (28%)	6 (19%)	13 (46%)	144 (37%)
Total	113	57	93	71	31	28	393

$\chi^2 = 26.10$; df = 10; p < 0.004 (11 missing cases)

TABLE 35 *Comparison of patients' feelings about their health problem before and after a home visit*

	After seeing the GP				
Before seeing the GP	**Very worried**	**Fairly worried**	**Not very worried**	**Not worried at all**	**Total**
Very worried	78 (32%)	115 (46%)	47 (19%)	8 (3%)	248 (63%)
Fairly worried	2 (2%)	55 (41%)	64 (48%)	13 (10%)	134 (34%)
Not very/not at all worried	0 (0%)	0 (0%)	7 (54%)	6 (46%)	13 (3%)
Total	80 (20%)	170 (43%)	118 (30%)	27 (7%)	395
$\chi^2 = 110.13$; $df = 6$; $p < 0.00001$ *(nine missing cases)*					

Patients' future preferences were related to how worried they felt after they had received a home visit. Only 11% of those who remained very worried said they would be prepared to attend a centre if they experienced the same problem again, whereas 72% would want to be seen at home. Among the 'not very worried' and the 'not worried at all', only 44% would still want a home visit.

The relationships between age, time of call and feelings about health problem, satisfaction and future preferences

There were few statistically significant relationships between age and the outcome of patient contacts in terms of levels of anxiety, satisfaction with the care received and their future preferences.

For telephone advice, no group differed significantly from other groups.

For centre attendance, three differences between age groups were evident. Where the patient was a child or over the age of 65 years, a higher proportion experienced difficulties in getting to the centre ($\chi^2 = 15.17$; df = 4; $p < 0.005$). Patients aged 40 years or more were less inclined to express dissatisfaction with waiting times at the centre ($\chi^2 = 19.48$; df = 6; $p < 0.005$). They were also more satisfied with the treatment they received, with none of the small number of patients over 65 years who attended expressing any dissatisfaction, compared with 10% of young adults aged 15–39 years ($\chi^2 = 21.14$; df = 6; $p < 0.003$).

Patient age was significantly related to four of the variables associated with home visits: it was weakly related to levels of concern prior to the doctor's arrival, more strongly associated with levels of concern following the doctor's visit and also appeared to influence satisfaction with treatment and future preferences. These relationships are set out in *Table 36*. Broadly, satisfaction with treatment was higher among older patients than younger ones, but they were also more likely to want to be seen at home again in the future and less likely to be prepared to attend a centre if they had a similar problem.

TABLE 36 *Relationship between the age of patients visited at home and their levels of concern, satisfaction and future preferences*

	Age group (years)				
	0–14	**15–39**	**40–64**	**65+**	**Total**
How worried before seeing the GP?[a]					
Very	49 (57%)	29 (49%)	52 (79%)	78 (64%)	208 (63%)
Fairly	33 (38%)	27 (46%)	14 (21%)	39 (32%)	113 (34%)
Not very/not at all	4 (5%)	3 (5%)	0 (0%)	5 (4%)	12 (4%)
How worried after seeing the doctor?[b]					
Very	8 (9%)	3 (5%)	23 (37%)	34 (29%)	68 (21%)
Fairly	37 (43%)	26 (44%)	26 (41%)	51 (46%)	140 (43%)
Not very/not at all	41 (48%)	30 (51%)	14 (22%)	31 (27%)	116 (36%)
How satisfied with treatment?[c]					
Very	45 (52%)	34 (58%)	40 (63%)	95 (77%)	214 (65%)
Fairly	29 (34%)	22 (37%)	17 (27%)	22 (18%)	90 (27%)
Not very/not at all	12 (14%)	3 (5%)	7 (11%)	6 (5%)	28 (8%)
Future preferences[d]					
Prepared to attend centre	20 (25%)	9 (16%)	8 (13%)	13 (11%)	50 (16%)
Home visit	24 (30%)	21 (36%)	40 (64%)	79 (69%)	164 (52%)
Don't mind	36 (45%)	28 (48%)	15 (24%)	22 (19%)	101 (32%)

[a] $\chi^2 = 14.25$; $df = 6$; $p < 0.03$
[b] $\chi^2 = 40.18$; $df = 6$; $p < 0.00001$
[c] $\chi^2 = 19.26$; $df = 6$; $p < 0.005$
[d] $\chi^2 = 40.47$; $df = 6$; $p < 0.00001$

The time of day at which they had made the call was significantly related to only one variable – how concerned patients were before they saw the doctor at a centre. Daytime callers were less worried than evening or night-time callers. Of the daytime

callers, 36% claimed to be 'very worried' (and 12% to be 'not very' or 'not at all worried') compared with 54% (and 5%) of evening and night-time callers. Again, this poses the question why 12% of daytime callers who were 'not very' or 'not at all worried' contacted the emergency service.

Chapter 8

Results – impact on other provider groups

A&E departments and casualty units

The advantages and disadvantages of locating cooperatives within or adjacent to A&E departments have already been explored in chapter 5, *Type and location of premises*. The fears of A&E departments and GP cooperatives about the impact that each might have on the other's workload have also been explored (chapter 3, *Choice of sites*). This chapter therefore concentrates on the opinions of both A&E departments and the cooperatives to determine the impact, if any, there has been on workload.

It was generally agreed by all but one of the A&E departments interviewed (and by many of the GPs) that A&E workload has risen in recent years. (The exception is Fardoc's A&E department, see below.) However, this rise was rarely attributed to the spread of cooperatives. Each side could suggest reasons why small changes in workload **might** result from the formation of a cooperative. Slight increases in A&E workload could result from:

- an increased propensity among cooperative GPs to refer patients they did not know
- an increase in referrals when cooperatives were overloaded
- a decrease in minor trauma work among rural GPs who joined a cooperative
- an increase in patient waiting times for home visits or centre consultations in busy cooperatives
- difficulties in accessing the cooperative by telephone
- closer proximity to A&E departments for some patients asked to attend distant centres
- policy changes encouraging referrals by cooperatives in particular instances (e.g. for catheterisation).

Decreases in A&E workload could result from:

- an agreed policy on referral of 'primary care patients' from the A&E department to the cooperative
- a more accessible, higher profile GP service out of hours
- long waiting times in A&E for low-priority patients.

Such decreases in A&E workload will almost certainly translate into an increase in GP workload.

The subject of cooperation and cross-referrals is a particularly interesting one. First, a distinction should be made between those cooperatives that have a close relationship with local casualty services and those that do not. Leaddoc and Fourdoc have almost no links. Leaddoc's local A&E department has experienced rising numbers of attenders, but can demonstrate that the proportion of these contacts taking place outside normal surgery hours has fallen. The question of cross-referral does not arise in either of these cooperatives. One of the three A&E departments interviewed in Fourdoc's area had experienced occasional increases in contacts with patients at times when Fourdoc's answering service was experiencing difficulties. However, this had apparently made them more sympathetic to the GPs involved:

> "One day in particular, we seemed to have a tremendous amount of people coming in who couldn't get the GPs on call. About 12 people came through to us so I phoned through myself to see if I could get through, and, in fact, that morning they had had 400 calls, so then I appreciated the amount of work they were dealing with. I thought 12 wasn't bad. I had no concept that they were treating that number of callers." (A&E Department, Senior Nursing Sister)

Fardoc's switchboard is linked to the hospital switchboard, and patients who **telephone** A&E for advice on a primary care problem may be transferred to the cooperative during its operational hours. Despite this, there are no formal contacts between the services. It is hospital policy that all attenders should be seen by a doctor, despite the triage nurses' view that 15–20% of patients could be advised to contact the cooperative in preference to a long wait in casualty.

Cottdoc also has no formal links with its nearest DGH A&E department. The hospital is some distance from the cooperative's bases, and has links with another, closer cooperative with whom it has agreed cross-referral guidelines:

> "Basically, they [the cooperative] don't want to know if somebody says they've got a 3-inch cut in their head. They're basically going to say 'go to the accident unit'.

> Similarly, they are quite happy for us to advise people with earache for 2 or 3 days to ring them." (DGH A&E Department, Charge Nurse)

They believe that if this closer cooperative was properly funded to provide nursing staff to do minor injuries work, a fair amount of their work could be moved to the cooperative.

Cottdoc, of course, is inextricably linked to the two community hospitals that are its bases, one of which has an intermediate casualty unit and the other a minor injuries unit. New attendances at both have risen year on year, from 9930 in 1992/93 to 12,443 in 1995/96. The Manager of these units is "quite sure..." that "...there's no cross-over on [GP and casualty] data at all". Nonetheless:

> "Community hospitals are part of GP practice. The hospitals are supported through the GPs, so you would need very strict criteria to say what was GP practice. I mean, a cough and a cold is GP practice, but you can equally have your finger stitched in many GP practices now, so is that minor injuries or is it GP practice?" (Cottdoc Community Hospitals, Hospital Manager)

Smalldoc, with its base in the fracture clinic next to the A&E department has an informal arrangement, which they believe works in both organisations' favour. Patients presenting themselves at the wrong service because they have failed to follow directions are re-directed to their original destination. Patients who have chosen the wrong option may, with mutual agreement, be transferred.

> "If it's a GP thing they [A&E] would ask if it could be sent round the corner and we'd have a look at it and, similarly, if somebody has come to see us and had clearly broken their arm, it'd be silly not to just use casualty; to suggest they go round the corner." (Smalldoc, GP)

Nursedoc has the closest links of all with its A&E department, largely because it is the same nursing staff who operate in both. The department would like to run a merged service with the cooperative from midnight to early morning. The cooperative is anxious to maintain a separation of services. There is cross-referral, and some patients also refer themselves between services for a second opinion. Concerns about cross-referrals have continued to be raised since the cooperative was formed. A&E workload data suggest that attendances have fallen by nearly 200 a month over the past year, yet some staff within the department believe that the cooperative are still happier to refer to A&E than to accept from them. GP members believe cross referral is at a manageable and equable level:

> "I think it has helped the A&E department to a large extent because at one time maybe 20% of the people who attend the GP centre would have dropped into A&E and so their workload was going up. Now, if A&E feels that it is in the GPs domain, they'll ring and tell the nurse here. And vice versa, if we find that somebody needs A&E attention rather than our attention, we send them across there." (Nursedoc, GP)

The key here appears to be the role of A&E nurses and care assistants in receiving and triaging cooperative calls. It may be that they see a clearer dividing line between which source of care is appropriate and which is not.

Countydoc has the widest experience of a number of forms of cooperation with A&E and casualty services. Two of its centres are based in community hospitals with casualty services. In this respect, they operate in a very similar manner to Cottdoc and both see considerable advantages in the situation. A third Countydoc centre operates from within a DGH A&E department and while there were initial teething problems over patient waiting space and rest areas for on-duty GPs, these have now been solved. However, one Countydoc centre that operated from another DGH A&E department for a short time was moved to another location within the hospital complex. Quite simply, A&E staff had failed to anticipate the volume of patients that would be attending, particularly at weekends and bank holidays. They had neither sufficient waiting space nor sufficient nursing capacity to cope with the extra reception duties generated.

It seems clear that in most areas A&E attendances are rising, but it is difficult to assess how much of this rise is part of a national trend and how much is related to changes in the primary care emergency system. Where GPs perceive a potential increase, it may be such a small part of the more general rise that it is barely perceptible to A&E departments.

One consequence of locating cooperatives within A&E departments that is much appreciated by the GPs involved, is the change in attitude of A&E staff who had previously seen GPs as the opposition:

> "The hospital staff were clearly under the impression that GPs sent everything they saw out of hours into hospital; that we just sat on our behinds ... and there have been nights when we've been going out 14 times ... and yet no patients have come in to them. And they began to realise that we only send in the ones that we really couldn't deal with ourselves. From that has sprung the most enormous cooperation." (Smalldoc, GP)

Ambulance services

As already reported, many of the ambulance trusts interviewed provide message handling and transportation for their local cooperatives under contract. In Countydoc's case they have also taken over the cooperative's administration. Most see cooperatives as a natural market for their communication and transportation systems and have separate management and organisational structures to handle this type of contract. They would like to expand this role. Many would also be interested in developing a telephone triage service, though there are medico-legal issues to be considered.

> "There is a significant opportunity for communication activity to be coordinated and collated at our head-quarters. Communication, I would suggest, is not a core activity for a cooperative, whereas it is a core activity for an ambulance trust." (Ambulance Trust Officer)

Their views, and the views of the GPs interviewed, on the impact the cooperatives had on their '999' workload was mixed. On the one hand, decreases might be expected because:

- cooperative centres are more accessible and better known to patients
- centres offer shorter waiting times than the A&E departments to which ambulance crews must deliver patients
- on-duty GPs are less likely than on-call GPs to tell patients to call an ambulance to save themselves inconvenience:

> "The ambulance service are getting far fewer 'rubbishy' 999 calls because people know that they can ring [our GPs] who will respond, so the ambulance service are happy with us. In return, we don't always visit the patient; we sometimes ask the ambulance service to go direct to take them to A&E, so there's a spin-off in both directions." (Leaddoc, GP)

Increased demand could arise from:

- one on-duty GP being unable to manage competing emergency calls needing home visits
- distance creating an unacceptable delay in the GP reaching the patient
- patients using ambulances as taxis to A&E departments in preference to making private transport arrangements to reach a cooperative centre
- heavy demand at the cooperative centre restricting the GP's ability to make home visits.

> "It's increased the workload. O.K., they're busy [but] we've had times when they ring up and say 'Can you send an ambulance?' basically because they know they are not going to get to that patient in time." (Ambulance Trust Officer)

> "There are far too many patients who, even though they have the means to get to an emergency centre, are taking the easy option and just dialling 999." (Ambulance Trust Officer)

Three of the ambulance trusts believed that the cooperatives had not made any impact on their emergency workload, three believed that they had increased it and one believed that they had decreased it. However, GPs' use of the ambulance service as a back-up was generally accepted as appropriate and ambulance services benefited from increased accessibility of out-of-hours GPs when **they** needed to make contact. Inappropriate demand was seen to be patient rather than GP generated.

> "[Prior to the cooperative] an ambulance would go to an emergency caller's house, the crew would say 'Can we have a GP?', and we'd be chasing a GP to find out where he was. Now, the time for an ambulance waiting for a GP at a house has halved in most cases. Because we can get a GP readily, it releases the crew much quicker, back into circulation." (Ambulance Trust, Control and Communications Manager)

Chapter 9
Discussion

Establishing cooperatives

There appear to be a number of **enabling** factors that aid cooperative establishment and without which greater difficulties in formation are experienced. Broadly, these are:

- strong commitment and leadership from at least two GPs offering each other mutual support
- existing areas of co-operation and collaboration between practices, for instance in joint out-of-hours rotas or providing cover for community hospitals
- natural, geographical boundaries within which the cooperative will operate
- examples of successful cooperatives in neighbouring areas
- lack of competition for patients between practices
- financial and logistical support from FHSAs/health authorities
- lack of commercial deputising services within the area to be served.

At three of the sites studied, there had been previous attempts to establish cooperatives, which had failed. In one case, lack of a committed lead GP and no FHSA support was cited. In a second, lack of FHSA support, little prior contact between practices and no clear geographical centre or boundaries were implicated. At the third site an attempt in the late 1980s met with little response because of cost and lack of knowledge about available models and options.

While health authority support is important in the planning and development stages when instrumental GPs have only their own practice time and resources behind them, it is debatable what role they should play in its later operation. In most instances, health authorities themselves withdrew from any operational role in the early stages of operation. They now hold more of a 'watching brief'. While a health authority officer may be invited to steering group or management committee meetings, normally health authorities are happy with regular meetings with administrators to check progress and/or annual reports for their members.

Fourdoc's experiences suggest that this is the most appropriate role. Intensive operational involvement by their FHSA led to a lack of 'ownership' and control by members. When the newly formed Health Commission disengaged, it left a vacuum that other external agencies could not fill and which hampered cooperative development.

Though the old FHSAs played a major role in monitoring and regulating commercial deputising services, the new health authorities do not normally perform such a function for established cooperatives, except in terms of monitoring formal complaints.

The lack of public involvement in planning and operations is disappointing but understandable.

- GPs see the public as part of the problem, not the solution.
- It was generally assumed that the change to cooperative, centre-based care would be unpopular.
- GPs lack the knowledge and resources to conduct exercises in public participation.
- Plans evolve and change and there is no clear point at which public involvement becomes appropriate.

It is disappointing that an informed and involved patient population might have:

- made sensible suggestions as to how the new service could operate
- had more realistic expectations of what an emergency service would provide
- made more responsible use of the services available.

CHCs, while not historically active in general practitioner services, have the expertise in seeking patients' views. Most showed considerable sympathy for GPs trying to tackle their out-of-hours problems and would have welcomed a more active role.

Recruiting GP members often requires considerable effort and diplomacy. Key issues include:

- the stage at which they are recruited

- the way in which they currently provide out-of-hours care
- the cost of membership
- the level of rota commitment
- the policy on admitting individual GPs rather than whole practices
- the level of commitment to continuity of care that exists in the area.

There are two schools of thought on the timing of recruitment: that local GPs should be asked to commit themselves to the idea of a cooperative and work together on developing plans, or that a firm proposal or business plan should be on the table at the first meeting. The former risks fluctuating levels of commitment as plans become more or less acceptable to prospective members. Organisers face rounds of meetings with groups, practices and individual GPs. They are also open to a great deal of lobbying and pressure. The latter risks alienating some prospective members because they dislike particular aspects of the plan that may be apparently fixed. If there is sufficient opposition, it may be necessary to go back to the drawing board.

Where GPs are relatively content with their current arrangements for providing out-of-hours cover (for instance in a joint rota with neighbouring practices, which offers reduced rota commitments, or using a commercial deputising service), the cooperative must offer them additional attractions, for example further reductions in rota commitments or cost savings. It is difficult to sell a cooperative on appeals to altruism towards less-fortunate peers.

The costs of membership must be sufficiently low, or the current demands of providing cover sufficiently high, to make cooperative membership an attractive proposition. If it increases costs without drastically reducing commitments it will fail to attract members.

While there may be scope for accepting partial membership from practices, this has to be limited. Having a few large practices with one or two partners continuing to provide their own cover outside the cooperative will present few problems. Having many practices in which only one or two partners are cooperative members will produce large swings in the number of patients being covered. At times when they are theoretically on duty for the practice rota, all the practices' patients become cooperative patients.

Cooperative recruitment campaigns can be bruising affairs for practices in which there are divided views on membership. The issue has been known to split partnerships irrevocably.

Cooperative area and size

Cooperatives covering rural areas tend to have a number of specific problems. Critical mass (i.e. enough GPs within a manageable area) has already been mentioned. In order to recruit enough GPs to make a cooperative financially and operationally viable it may be necessary to over-extend the area covered. This has the effect of either increasing average response times or increasing rota commitments to provide more on-duty GPs, which makes membership less attractive. It may also necessitate the establishment of more than one centre, with added costs and rota implications. Overall workload may not warrant more than one GP on duty, but distance may demand it.

Some practices that want to join a rural cooperative but are on its borders may find themselves excluded because of the impact their additional distance would have on existing rota arrangements. While they might add four GPs to the rota pool, if their membership doubles the rota requirement, then existing members suffer. This is the current situation in three of the cooperatives studied. In some cases, would-be members 'fall between two stools', in that cooperatives on either side of them are equally unwilling to accept them.

There is also what might be termed the 'doughnut' effect, where one or two practices central to the cooperative's area are unwilling to join. The primary care emergency centre may be located close to their practices, but the patients which it serves will live some distance away. Recruiting such practices can be a high priority for organisers, and lead to considerable pressure to join.

A further problem for cooperatives covering rural areas and also for those covering coastal areas, is a potentially high number of temporary residents, usually in the summer. This may affect only a small number of practices in the area, but can change those practices' whole pattern and volume of work. Practices that rely on income from temporary residents may not want to share that income in a cooperative; practices that don't have many temporary residents may not want to cover the increased workload.

Cooperatives which cover a mixed area, with some urban and some rural practices, face the problem of reconciling the conflicting perceptions and

priorities of each group. The rural practices fear their patients will be unfairly denied home visits because of the distances involved and they see some of the urban areas as perhaps more dangerous than they really are. The urban practices are concerned about the distances they will have to drive in unfamiliar, unlit territory, searching for named houses with no street signs. They see country lanes as more dangerous than the urban areas they themselves cover. While the urban GPs may be able to spend part of the night at home with a pager, rural GPs rarely have this option. They must remain in the centres because their homes are too distant. Nursedoc has had to implement a two-rota system, in which a small number of large urban practices form one rota which does not base its GPs in the centre and the remaining urban practices form a second rota with the rural GPs and **are** based in the centre. Even then, some practices insist that of the two doctors on duty at the centre, one should be rural and one urban with the rural GPs making any home visits needed on their 'patch'.

Countydoc has not had to face these problems to the same extent, since it has two urban and four rural groups, with little crossover. However, it has encountered some of the problems peculiar to areas which are partially covered by commercial deputising services. Competition for members can be fierce and acrimonious. GPs who wish to remain with the deputising service may fear that its existence will be jeopardised if it loses too many members to the cooperative. They frequently use the LMC as a forum in which to criticise and denigrate the cooperative's plans, especially where the LMC is known to support the commercial service. This exerts pressure on those GPs who would like to switch to the cooperative, threatening the viability of the cooperative for those GPs without access to the commercial service.

All of the cooperatives studied had faced one or more of these area-related problems in its efforts to recruit members.

Type and location of primary care emergency centres

Choosing the location for a cooperative base and emergency centre can be a major headache for its organisers. In rural areas, there may be little choice of suitable accommodation, and the need to locate centrally within the area covered may further constrain choice. If the area is particularly large, more than one centre may be needed, which adds to the cooperative's costs and to the rota commitments of individual members. There are also likely to be difficulties when it is intended that a single centre should serve two, three or more small population centres. Objectively assessing which location will be most convenient for the greatest number of patients is difficult when prospective members are lobbying hard for the centre to be as close to them and their patients as possible. They may even make their membership conditional upon the location of the centre.

There are advantages and disadvantages to each of the types of premises occupied by the cooperatives studied. Location on a DGH site, within or adjacent to an A&E department carries the risk of 'over-medicalising' minor problems by asking patients to come to a hospital, and can generate confusion in patients' minds as to what is an A&E service and what is a primary care service. A&Es can fear both an increase and a reduction in their workload due to the proximity of a primary care emergency centre, depending upon whether they are fully stretched or needing to retain their viability. GPs fear an increase due to cross-referrals from A&E and to the higher visibility the centre will have. While it would be necessary to mount another, major study to quantify any changes in the balance of demand between the two, subjectively at least, changes appear to be marginal and demand is rising in both sectors.

Advantages include access to more sophisticated clinical equipment, faster admissions when needed, improved relationships between GPs and A&E staff, 24-hour security, and an accessible, well-known location.

Centres on a DGH site but removed from the A&E department have much the same disadvantages and advantages but with less fear of confusing patients and generating inappropriate service use.

Community hospitals offer a number of attractive features: they are already covered by the co-operative GPs, well-known to patients and offer access to clinical facilities, nursing support and GP admission beds. However, it is clear that when they are offering casualty or minor injury services, patients (and sometimes staff) find it difficult to differentiate between hospital and cooperative services. It will be argued that this is a distinction which need not be made, and that there is a case for offering an integrated service funded from a single budget.

However, any hospital premises are likely to suffer from constraints on space.

While single-occupancy, purpose-built or -converted premises offer the ideal solution, they are generally too expensive for cooperatives to fund from their own resources, particularly if more than one is needed or the cooperative is small.

If the cost rent scheme were extended to cooperative centres, with new cost rent schedules incorporating the wider range of domestic facilities they require, this would enable cooperatives to provide purpose-built premises or to convert existing buildings. Notional rent reimbursement would serve the same purpose. If such premises were located on DGH sites, this would add the benefits of known location, better security, and improved access to secondary care services. Physically separated from A&E departments, A&E waiting areas would not be overwhelmed, and hospital staff would be relieved of the necessity of acting as cooperative receptionists at busy periods.

In general, the cooperatives studied have had to compromise with less than ideal facilities, particularly domestic facilities for on-duty staff. They have not always been able to secure accommodation at the most appropriate geographic location. The type and number of premises they use can have an impact on the type of service they are able to provide, for instance by reducing their ability to organise centre attendances.

Patients were not specifically asked how conveniently located the centres were for them. They were asked only to estimate the distance to their nearest centre and, for those who had attended, whether they had experienced any problems getting there. The average distances within cooperatives ranged from 2.4 miles to 6.3 miles. Proportions within 3 miles ranged from 75% to 32%. While 16% of patients said they had experienced some problems in getting to the centre, distance was not an important factor in this.

Infrastructure, management and organisation

Each of the cooperatives studied fulfils the aims of reducing on-call commitments for members, providing an opportunity to separate their personal and working lives, and making more efficient use of their time. Each has within it members who believe that theirs is the most appropriate size for a cooperative and the best system of organisation possible in the area they cover.

However, there are a number of organisational factors that appear to enhance the benefits of cooperative membership for GPs. These are:

- bringing together 20–25 practices in a single centre
- providing opportunities for regular interaction between members through multi-GP shifts
- employing staff at the centre who represent the backbone of the organisation (including administrators, receptionists/telephonists, triage nurses and drivers)
- involving members as much as possible in setting policy
- informing members about the day-to-day affairs of the cooperative.

With a small number of members or a large number of centres, workload will rarely justify having more than one GP on duty at a centre for much of the time. The on-duty GP thus remains professionally isolated. In addition, it is less likely to be economically viable to employ centre staff, adding to the sense of isolation. Without dedicated staff, it is more difficult to maintain a sense of continuity or to keep members informed of day-to-day affairs. Extending the cooperative's activities to include educational meetings, social events and 'lobbying' for local services, which all add to the value of cooperative membership for GPs, is likewise more difficult without supporting staff.

Of course, small cooperatives with little in the way of supporting staff may be less costly to their members, and this consideration may outweigh all others. They may also be the only possible form of organisation in sparsely populated geographical areas with few GPs.

While larger cooperatives operating from a single centre may offer a number of advantages to their GP members, this is not to say that they will necessarily be the ones that are most popular with patients. In fact, Smalldoc, despite its very limited staffing, somewhat cramped and inadequate facilities and single GP on duty at night, regularly achieved higher ratings for accessibility and patient satisfaction than its larger, more sophisticated peers.

Size also has a considerable impact on members' rota commitments. As it is impossible to have less than one GP on duty, the number of members rather than the workload to be covered dictates commitments in small and multicentre cooperatives. Fardoc's 75 members cover 120,000 patients, working an average of 1.5 shifts

per month each. In contrast, Cottdoc's 26 members cover 45,000 patients but work an average of 4.2 shifts and one standby shift a month.

The number of shifts GPs work may be left to members' discretion in cooperatives making shift payments, but in other cases the number can be calculated on list size, number of partners or out-of-hours workload generated by each practice. While the latter may be the fairest method, it is also the most complex and least practical from an administrative viewpoint. None of the cooperatives studied currently use it. Organising the rota, by whatever method is used to calculate and assign shifts, is one of the most frustrating and difficult tasks administrators and managers face. Even when the rota has been set, swapping, bartering and selling shifts between members is a common feature of cooperative life. There does not seem to be any one system that has clear advantages over others.

Costs

Overall, the operating costs of the cooperatives studied vary widely – overall, on a per member basis and on a per 1000 patients covered basis. On a per member basis, there is an eight-fold variation between the least and most costly cooperative. In part, this relates to whether payments are made to GPs for working shifts. In part, it depends upon what staff are employed and what services are sub-contracted. The advantages and disadvantages of direct employment and sub-contracting have already been discussed (chapter 4, *Employment of staff*). Patients' views on access also suggest that for them employed telephonists/receptionists are preferable to message-handling services.

It is difficult to assess the relative financial merits of direct employment and sub-contracting. A car and full driver cover is likely to cost much the same (£25,000–£30,000 per annum) under either system, subject to local variations in leasing arrangements, wage rates and competition between trust providers. For small and/or multicentre cooperatives, direct employment of telephone operators/receptionists may not be a cost-effective option. At an average cost of £1000 per annum per GP member for message-handling services, the option of covering in excess of over 100 hours per week per centre with directly employed reception staff may represent a greater expense. Countydoc, for instance, originally chose to have a central operations base with telephone operators employed directly, but little or no reception cover at its six bases.

Choosing under which heading to concentrate resources must be a matter of member preferences and local circumstances. For rural areas, drivers and cars may take priority, and it is therefore surprising that the development fund specifically prohibits expenditure on vehicles. For single-centre, high volume cooperatives, reception staff may be essential. It is important to recognise the impact these financially constrained choices will have on patients and patterns of care.

Shift payments play a large part in determining operating costs. Without them, the variation is reduced to five-fold. There is considerable disagreement on whether GPs should be paid by the cooperative for rota duties. Some GPs see shift payments as an unnecessary complication which simply increases the administrative workload. They rely on all members making an equal contribution to both operating costs and rota commitments. Others argue that cooperatives that make shift payments are more accurately reflecting the true cost of providing primary care services out of hours rather than contributing to the notion that it is a low-cost option. To some extent, their motives are political. However, in larger cooperatives shift payments do provide members with an opportunity to choose their own balance between costs of membership and commitment to the rota.

Where there are no shift payments, the way in which subscriptions are calculated and shifts assigned has an important bearing on how 'fair' the cooperative is seen to be. If both subscriptions and rotas are calculated on list sizes, GPs with high lists will both pay more and work more than those with low lists, which is regarded as a double penalty.

Operating costs are met in part by development funds, sometimes but not always augmented by rent and rate subsidies, and occasionally by marketing the cooperative as an answering service for other professional groups. Any shortfall is met from membership subscriptions, which range from zero to around £6000 before shift payments are taken into account. GP opinion varied on the impact of any future withdrawal of development funds. For some, particularly those already making high sub-scription payments, its loss would result in their own withdrawal from the cooperative and its potential collapse. For others, leaving the cooperative and returning to their earlier level of out-of-hours commitment was unthinkable, and they would increase their financial contribution to avoid this.

Broadly, cooperative membership in the seven sites studied involves each GP in the theoretical or

actual loss of a share of the area's development fund, ranging from £1350 to £1600 per annum. For some, it is theoretical because all development funds are assigned to cooperatives and other major developments, with GPs outside these developments receiving nothing. For others it is real because non-members also receive a payment from the fund.

On top of this, and sometimes considerably outweighing it, there is frequently a membership subscription. While GPs now receive an annual allowance of £2000 for undertaking out-of-hours commitments and it could be argued that this offsets or covers their subscription costs, they still provide out-of-hours cover within the cooperative framework, for which the £2000 is supposed to be some recompense.

Night-visit fee income may be lost because their cooperative handles a high proportion of cases by providing telephone advice, or because night-visit fees are credited to the on-duty and not the registered GP. Some may lose out on temporary resident fees if these go to the on-duty GP rather than the GPs who would normally expect to register a large number of temporary residents during summer months. Other costs may accrue from a loss of contract income (for instance for nursing home, prison or oil rig cover).

There is a great deal of anger and unhappiness among GPs who are both supporting their cooperative financially and playing a full part in rota cover. They see this 'paying to go to work' and as a form of subsidy from their own income to the health service (see *The future of primary care services out of hours*).

Patterns of care

It is not possible to assess objectively the impact that these cooperatives have had on overall levels of demand for out-of-hours care. Accurate workload data prior to the formation of a cooperative are not generally available. Further, most have experienced changes in membership over time so that any such data would no longer be a valid point of comparison.

Rising demand is believed to be part of a national trend[1,2] and the impact of cooperative, centre-based care cannot be separated from the broader picture. There are those who believe their cooperatives have reduced demand, or at least stemmed its rise. Others believe it has had no impact. However, a significant number of GPs believe centre-based care is fuelling demand by giving out-of-hours care a higher profile and making it more accessible to patients. GPs are equally divided in their view on the impact of changes in out-of-hours provision on daytime workload. Some believe more patients are seeking daytime emergency appointments to avoid contact with the cooperative; others believe patients are finding it more convenient to use the cooperative rather than make surgery appointments. An unanticipated consequence of cooperatives may be a reduction in weekday home visiting, as doctors become more convinced that patients can and should attend surgeries.

It seems likely that telephone consultations are increasing, centre attendances are increasing and home visiting is decreasing over time. What impact this has on overall demand will remain a subject for debate and further investigation.

There are striking and significant variations between cooperatives in the pattern of care that they provide. Telephone advice was offered to between 20% and 44% of callers. Telephone consultations have been and continue to be a source of anxiety for many GPs,[16] who believe there is a greater likelihood of making a mistake than in face-to-face consultations. Nonetheless, telephone advice has been widely used as an alternative to home visiting by many GPs in the past,[17–21] and it is now seen as an essential component of out-of-hours care in meeting increased demand without increased rota commitments. A number of strategies were suggested to reduce the anxiety that telephone consultations can generate. These include:

- ensuring that the patient is happy to accept telephone advice
- ensuring that the patient understands the advice they have been given
- telling the patient what they can expect to happen as a result of following the advice given
- insisting that the patient calls again if the situation worsens or they remain worried
- if concerns remain, arranging to phone the patient back to check on progress.

There is clearly a case for training GPs and nurses in when it is appropriate and acceptable to advise patients by telephone, how to give advice effectively and what safeguards are needed to avoid mistakes.

It was pointed out that sometimes patients were asking for telephone advice and did not wish to see a GP at that stage. The number of such callers was

thought to be increasing, and to this extent the availability of telephone advice was seen as contributing to rising out-of-hours workload.

Between 20% and 41% of patients were asked to attend a centre. Despite the fact that four of the six cooperatives that took part in the patient surveys had been operating from centres for at last 3 years, still the majority of their patients did not expect to be asked to attend. Excluding patients who were unsure or had mixed expectations, only between 10% and 15% of patients at these four cooperatives expected to attend.

In the two youngest cooperatives, 26% and 32% of patients had this expectation. These two co-operatives place considerable emphasis on reducing home visiting. However, their patients will have had the **least** experience of using a centre-based service. It seems more likely that these patients have changed expectations because they have only recently been exposed to publicity about the new services and the use of centres.

This argues that patient expectations can be and are changing, but that cooperatives need to run frequent publicity and information campaigns if they wish to continue and reinforce this trend.

Quality of care

This study contains no objective measures of quality of care. Within each cooperative, it is recognised to be an important issue. A common aim during cooperative planning was that the quality of care provided to patients should not suffer because of the change in organisation. The GPs interviewed believed that quality had improved. They pointed to:

- faster access to care through centre attendance
- improvements in the environment, facilities and equipment available for treatment within centres compared with patients' homes
- better organised and more consistent responses to calls
- less stressed, more alert, on-duty GPs
- less GP isolation and more opportunities to learn from colleagues
- more opportunities to jointly address training needs.

While all these factors suggest that an improvement in clinical care should be attainable, they do not confirm that it has been attained. In the past, the quality of clinical care out of hours has not been directly measured, so there is no point of comparison. There are clear differences in patterns of care between cooperatives, but no indication that these differences represent different standards of clinical care.

Response times and patient satisfaction have commonly been used in the past as measures of quality. Response times may be a somewhat dubious measure, taking no account of the accuracy of a GP's judgment in prioritising calls on the basis of clinical need. Between cooperatives, however, the proportion of patients visited at home within an hour ranged from 56% to 89%. Respondents to the patient survey apparently feel that a delay of greater than one hour is unacceptable (only 10% 'very satisfied' and 44% expressing dissatisfaction over a longer waiting time). Earlier studies of out-of-hours care have found a similar link between satisfaction and delay in visiting. In Sawyer and Arber's study, 15% of patients visited within 1½ hours were dissatisfied, as were 42% of patients visited with a delay of between 1½ and 3 hours.[22] Dixon and Williams, studying deputising service visits, found a declining level of satisfaction with increased delay, from 95% 'satisfied' with a delay of under 30 minutes to 47% 'satisfied' with a delay of over 2 hours.[23]

Monitoring response times for home visits and centre attendances against set standards, perhaps graded to represent different priority groups, would at least enable cooperatives to judge whether they need more GPs on duty and/or more centres.

The number of GPs needed on duty to cover each shift is a subject that requires further investigation. Within the cooperatives studied a single GP could be covering anything from 31,000 to 180,000 patients, albeit with a second on-call GP at home. Under a practice rota system, it would be highly unusual for one GP to be covering more than 15,000 patients at night. It has been argued, with justification, that the more common scenario of having four GPs from separate practice rotas on duty at night covering a total of around 30,000 patients represents a grossly inefficient use of GP time. However, there are no guidelines on what would represent an adequate safety margin.

Concerns may be groundless, as delays are longest at weekends, particularly on Sundays, when more than one GP is commonly on duty. (Bank holidays were specifically excluded from the workload recording periods, but might be expected to produce still longer delays.) However, monitoring

of response times would identify any problems and permit adjustments to be made.

Patient satisfaction with the treatment they received was generally high. 92% were 'very' or 'fairly' satisfied with their treatment at home; 93% were 'very' or 'fairly' satisfied with their treatment at a centre. Although it is difficult to compare this with satisfaction levels reported in earlier literature because of different categorisations and rankings of satisfaction, these levels appear to be on a par with those found in studies of practice rota cover and exceed comparative figures for deputising service care, which may be as low as 58% satisfied.[21–25]

Despite the number and range of objections against attending a centre under certain circumstances, patients who attended centres were as satisfied with their treatment as those who received a home visit, and more satisfied with the time they waited to see a doctor. With clear links between expectations and satisfaction (e.g. 46% of the patients who were dissatisfied with the treatment they received at a centre had expected to be visited at home), a change in one should have a noticeable impact on the other.

Telephone consultations produced the lowest levels of patient satisfaction with care received. Twenty-two per cent were dissatisfied with telephone advice (compared with 7% of centre attenders and 8% of patients visited at home). From the patients' viewpoint, it seems immaterial whether the advice is given by a doctor or a nurse. Telephone advice is undoubtedly much less acceptable to patients than other forms of care **when the patient expected to be seen**. Of patients who had expected and received telephone advice only 4% were dissatisfied with the advice received. Of patients who had expected a home visit but received telephone advice, 53% were dissatisfied. Suggestions for improving telephone consultation skills were made by the GPs themselves; certainly this is an area where additional training may be needed.

Impact on other healthcare providers

The case studies were unable to assess the impact of cooperatives on patients' utilisation of other services, particularly A&E departments. Workload within A&E departments was generally thought to be rising as a result of national trends, and the A&E personnel interviewed did not believe this was linked to the cooperatives. Further research on this subject is needed, but the current work suggests that it is unlikely that the cooperatives studied have had much impact on A&E workload. Cross-referrals between the two are limited and may well cancel each other out. GP, A&E department and patient behaviour produces opposing swings and tensions. From a patient perspective, for example:

- an A&E department may be closer than the primary care centre they are asked to attend
- long waits in A&E departments may make a primary care centre more attractive
- longer waiting times for a GP home visit may make the A&E more attractive
- dissatisfaction with the treatment provided by either service may result in attendance at the other for a second opinion.

It is clear that there is scope for considerably greater cooperation and collaboration between A&E departments and cooperatives than currently exists. However, if this is desirable, there are professional boundaries and genuine fears that need to be overcome.[26–32] GPs and small A&E departments fear that it could lead to the ultimate demise of the small A&E department, with its functions split between GP cooperatives and larger A&E departments dealing with major trauma and immediately life-threatening conditions only. Large A&E departments are more likely to welcome the opportunity to maintain their speciality, referring low-priority patients to a GP unit; however, anything that increases the workload for GPs is unlikely to be acceptable to GPs.

Where A&E departments and cooperatives do operate within close proximity, there are examples of agreements on limited cross-referrals, occasional sharing of staff, and an improved understanding of the workload and problems faced by each service.

The distinction between GMS and hospital and community health services (HCHS) funding streams for cooperatives based in community hospital casualty units appears to be hindrance to developing more integrated services. Lines have to be drawn between GMS and HCHS patients despite the fact that they may have similar problems and receive similar services. The introduction of unified budgets in 1999 should alleviate this problem.

Ambulance trusts are frequently already involved with local cooperatives, providing communications, transportation and, in one case at least, administration. They see cooperatives as a natural market for their communication and transportation networks and would like to develop this further.

While numbers of ambulance journeys appear to be stable, the proportion of journeys resulting from 999 calls is rising. Whether this is related to the growth of cooperatives and centre-based care is impossible to say. It is also not clear to what extent the increase is a result of changed patient behaviour or changed GP response patterns. This must remain a subject for further investigation.

Experiments are already underway in allowing ambulance services more discretion in where they deliver patients needing medical care. The danger that patients will learn that calling an ambulance is a convenient and cost-free way to get to a primary care emergency centre must be guarded against.

The future of primary care services out of hours

Over the past 3 years, the development of cooperatives has been supported by Government and encouraged by health authorities. Cooperatives have been seen as **the** answer to the increasing unwillingness of GPs to spend long and frequent periods on call. Very few of the GPs interviewed were prepared to contemplate a return to practice-based rota care. Even where cooperative membership was proving costly in financial terms, it was generally preferable to returning to anything less than a one-in-five rota. A return to deputising service use was more acceptable, but was not an option available to many. Undoubtedly there are many GP members of cooperatives who believe that cooperatives **are** the answer:

> "I think cooperatives are a really good solution for most of England, and if you are combining that with a base where people can come down, it is a good idea that should have been introduced decades ago really. So I think for probably 80% or 90% of England it is a good system, and certainly it has been proven to work in rural areas just as well as it can in our population." (Leaddoc, founding GP)

Cooperatives have served two major purposes. Indisputably, they have improved the quality of life for many GPs, thereby defusing arguments over the 24-hour contract.

> "It has been an amazing success and the change in my personal life, family life and life in the surgery because of it has been huge." (Fardoc, GP)

> "GPs have said it has been the biggest enhancement in their lives since they became GPs because suddenly they have got this huge burden taken off their shoulders. They aren't going into surgery grumpy six times a month." (Nursedoc, Health Authority Officer)

To the extent that cooperatives have permitted the continuation of an out-of-hours service run by and provided by GPs, they have provided **an** answer. However, there appears to be a 'honeymoon' period in which demand levels fall slightly and GPs much appreciate their new-found freedom from practice rota commitments. Some members of well-established cooperatives, faced with rising demand and possible increases in their rota commitments to meet it, are less sure that it is **the** answer. They believe cooperatives can encourage demand and are an unwelcome step towards 24-hour access to routine care. Some fear they risk being used to 'dump A&E services onto GPs'.

> "I don't think it could have carried on as it was, so something had to happen. I still don't think that the way we are providing out-of-hours care is the best way to do it. If the demand continues to increase as it has done, then even this won't cope with it. Because what will happen is you will need more doctors per shift and you end up back at square one." (Fourdoc, GP)

> "I think it is abused to a much greater extent. People have now discovered where it is and they know at any time they can go up there; at present the GPs are finding it quite hard work. In a way, Fardoc has created a monster. The difficulty is in 10 years time. How will we cope with the workload then? We are going to be back to the way we were." (Fardoc, founding GP)

Leaddoc's health authority has projected the number of calls which Leaddoc might expect to receive in future years. This is based on increases in the number of calls it has handled annually since its inception, adjusted for changes in membership levels, producing a 10.3% annual growth rate.

Indexing 1996 figures at 100, this suggests that by 2005, the rate will be 241.

Managing and controlling demand is thus a key issue if cooperatives are to remain attractive to their members.

It is clear then, that the set-up of cooperatives has not provided the perfect solution to the out-of-hours problem. They cannot remain static, but must change and develop alongside and in response to continuing pressures. Further service developments are needed in order to 'fine-tune' their operational viability. Two possible approaches were suggested. One was a major campaign of public education emphasising that the service is for emergencies only and is not there to provide 24-hour access to routine primary care. There was considerable scepticism about whether such a campaign would be effective.

> "...you've got 24-hour shopping, 24-hour petrol service, increasingly the general public felt this was a 24-hour Dial-a-Doc. This was the way that the country was going. People say 'Oh, you should re-educate the patients.' I don't think you can. I don't think you'll change people." (Smalldoc, founding GP)

A more radical solution, which its proposers believed would have an instant and high impact, was the introduction of fees.

> "I think one of the major areas we have to address is patient expectation. Setting up the base centres and seeing patients at base is really just offering patients a 7-day-a-week consultation surgery. If patients had to pay £40–45 to consult a doctor over the weekend, you would see it disappear overnight." (Leaddoc, GP)

> "I'm not sold on it [cooperatives], in the sense that I don't think it's a kind of magic panacea for our problems with out-of-hours care. I think it would make a dramatic difference if people were charged for out-of-hours care on a direct basis and not able to reclaim it; it could go into NHS coffers." (Fourdoc, GP)

The argument against charges is that they would do nothing to discourage demand from the well-off (and might actually increase it if they 'bought' convenience) but could lead to dangerous delays in seeking care by the poor, faced with a genuine emergency. However, it is not without precedent in other countries and not entirely without precedent here. In London, where access to out-of-hours services is frequently poor,[33,34] it is possible to subscribe to a commercial service, which guarantees to visit subscribers in their own homes out of hours.

While the majority of GPs do not wish to see charges imposed on patients, there is a strong feeling that neither should GPs be expected to pay for the service. In four of the seven cooperatives studied, members were making substantial payments towards operating costs. In two, there was no opportunity to recoup any of these through shift payments.

A second key issue is thus who should fund out-of-hours care and what should funding cover?

The Department of Health would argue that **they** fund out-of-hours care. Each GP receives £2000 per annum for providing 24-hour care and around £20 for each patient seen between 10 p.m. and 8 a.m. With an average list size and average demand, this represents approximately £1250 in additional income. (The £45 million per annum development fund provides, on average, £1400 per GP for infrastructure and equipment.)

The GPs would argue that this is poor reward for the work that they actually do and that it should not be necessary to sacrifice a portion of this income to fund a more efficient service.

> "I've worked out that if you average out the amount of money you get over the year and what you have to cover for, you actually get paid more for being a baby-sitter than you do for being a GP paid by the government to provide 24-hour emergency medical care to your patients, and I don't think that's good." (Countydoc, GP)

> "We are paying to go to work. Do you know anybody else who does that?" (Fardoc, GP)

When the two-tier night-visiting fee was abolished, it was believed that the Government had saved substantial amounts of money at the GPs' expense.

> "It's cheaper to the Government to have a cooperative running than running the old system. They don't like to admit it but we reckon we have saved the Health Authority about £50,000, possibly £70,000 in night fees that they would otherwise have paid at the higher rate. We think the Government should pay for the whole service. We don't see why doctors should have to subsidise it at all." (Leaddoc, founding GP)

As the GPs themselves make up any shortfall between development funds and operating costs, cooperatives frequently forego facilities and support staff that would make for improved working conditions and a better service for patients. Their premises can be less than ideal, there may be no reception staff available and GPs may themselves be undertaking management and administrative functions. Several of the cooperatives would like to make improvements, but will not do so without additional funds.

> "Centres should be providing adequate facilities to be able to see patients out of hours and treat them properly and at the moment we are having to compromise – pretty poor facilities that don't really provide what we want. I mean, in an ideal world, which takes money to make it happen, the idea is that we would have a well-designed, well-equipped facility, well-staffed in terms of reception staff and nursing staff, none of which it is." (Fourdoc, GP)

If the running costs of all cooperatives, in their current form, were to be fully reimbursed by the Department of Health, this would lead to wild variations in the cost of out-of-hours care between areas. As has been shown, cost per GP member in the seven cooperatives studied ranges from £1080 to £8780, depending upon whether shift payments are made, the level of staffing, the number of centres and the sophistication of their operations.

It would also be deeply resented by cooperatives that have foregone facilities and staff to reduce costs. A system of reimbursement would thus inevitably have to be based on regulation and standardisation. It is unlikely that this would prove universally acceptable either. Small cooperatives might be required to merge to achieve economies of scale; centres might have to be re-located to meet the needs of changed boundaries; shift payments might have to be abandoned or tariffs standardised; and while some cooperatives would gain in terms of staffing, others could lose.

However, as long as members have to meet part of the cooperative's running costs, this will remain a source of considerable aggravation. Further, high subscriptions destabilise cooperatives. Members do leave on the grounds of cost and thus increase costs for those who remain.

A third key issue is who should provide primary health care out of hours?

There was much debate about the wider role that nurses could play, both in telephone triage and in providing advice and treatment to patients with minor illnesses or injuries. In its favour, nursing input would reduce the workload of on-call GPs, relieving them of callers who do not need the skill levels of GPs to solve their problems.[35–37] The employment of nurses in larger cooperatives would certainly be advantageous. In emergency centres where there are two or three GPs on call, as in the case of Leaddoc, one GP is normally out in the car undertaking home visits, while the other one or two remain at the centre to treat patients. The workload of the GPs at the centre could be decreased were they to employ a nurse, and might reduce their rota commitments.

However, a wide range of disadvantages and obstacles were advanced:

- nurses are expensive, especially in comparison with GPs working shifts without payment
- while nurses would reduce GPs' workload, they would not necessarily reduce their rota commitments, particularly in small or multicentre cooperatives where the same limited number of GPs would still be on duty alongside nursing staff
- many GPs would be unhappy with nurse triage, believing GPs to be 'safer', more effective and more flexible in that role
- where would legal responsibility lie in any cases of mismanagement of patients
- there are insufficient numbers of appropriately trained nurses to meet potential demand.

Any move towards greater involvement of nurses, in either a triage or a practitioner role, would require a long lead-in time during which additional recruitment and training took place. However, it was suggested by a limited number of GPs that nurses might be over-skilled for many of the tasks they would be required to undertake.

> "I don't believe that it needs to be done by doctors. I think most of it is actually a waste of doctors' skills. I think quite a lot of the triage could be done on the phone, at the point of contact. So you'd need someone highly trained. In fact, the decision making could be done more centrally. I think nurses could provide the care. I am not even sure that they would have to be trained nurses. Even paramedics might be too highly trained. If you analysed the actual diagnosis of the stuff we see, most of it requires very low level skills to diagnose and treat. In terms of recruitment problems, there aren't going to be enough doctors and nurses to provide the care anyway if it continues to escalate." (Fourdoc, GP)

Actual or potential deficits in the workforce providing out-of-hours care was a recurrent theme. Fewer medical graduates are choosing general practice as a career option. Of those who do, an increasing proportion are female. They are more likely than their male colleagues to need a flexible career path including periods of part-time working and a release from out-of-hours responsibilities. Increasing numbers of established GPs are looking toward early retirement and older doctors frequently have arrangements with younger partners that reduce or end their practice rota commitments. While large cooperatives cushion the impact of some members making little or no contribution to the rota, rising workload may force them to reconsider whether rota commitments can remain voluntary and optional. If forced back into heavier out-of-hours commitments, many GPs for whom cooperatives have represented a 'life-line' would consider retirement as an option.

The nursing profession also faces a recruitment problem. Many hospitals already rely heavily on bank nurses. While some nurses would welcome the part-time, flexible hours that cooperatives can provide, any concerted move towards employing nurses would reduce the pool of nurses available for other health service posts. There are in any event few trained triage nurses and nurse practitioners, and thus there is a skills gap as well as a recruitment gap. As has already been described, differences in the training, attitudes and working patterns of GPs and nurses can sometimes lead to uncomfortable working relationships.

The idea that existing paramedics could make a significant contribution to the primary care out-of-hours workforce is somewhat fanciful. They are trained in a limited number of specialist skills, for instance resuscitation and stabilisation in cases of major illness and trauma. Such cases are not representative of GPs' out-of-hours workload. A new cadre of 'care assistants' with limited triage and treatment skills would take time to establish and would probably meet with considerable resistance from the nursing professions.

A number of GPs suggested that out-of-hours care should be organised along the same lines as daytime surgery care – in other words that a full primary care team should be available 24-hours a day.

> "I'd like to see it on a team basis; they've encouraged healthcare teams during the day, and as so much happens out of hours, I don't think there's any case at all for not developing this team approach at night. Many problems have become medicalised and, because we're human, we tend to go and deal with them, but really if you had, for example a qualified counsellor on, they would actually be far more appropriate for them to see." (Smalldoc, GP)

This implies an acceptance that the service is moving from out-of-hours emergency cover to 24-hour access to primary care. While GPs believe that many patients already treat the service in this way, there would be strong opposition to any developments that reinforced this view.

There was considerable support from GPs, other care providers including ambulance trusts and A&E departments, and health authorities for the idea of a centralised telephone triage service covering several cooperatives and independent GPs and possibly extending to A&E services (see below). Unfortunately, there was no consensus on who should undertake the triage role. GPs were suggested (predominantly by GPs and health authorities) as were trained nurses (by GPs, health authorities, A&E departments and ambulance services). A&E departments sometimes felt their nurses were ideally placed to offer such a service, and sometimes wanted nothing whatsoever to do with it. Ambulance trusts believed they could provide the service, using either nurses or their own despatchers.

The one cooperative with extensive experience of nurse triage provided by A&E nurses has mixed views on their effectiveness:

> "Some of the triage nurses are very good, but some of them are not confident at all and end up covering their backs by getting a GP to see them all. A lot of the nurses don't like being there, possibly because they're not confident in telephone triage." (Nursedoc, GP)

In fact, one development consortium is trying to establish a GP-run triage system in an area which does not yet have a cooperative. Callers who need more than telephone advice would be directed to the GP on duty for their practice. There are difficulties here, however:

> "We had all these doctors willing to triage, but no-one was willing to allow their patients to be triaged because that's going to cost. We're hoping that the Health Authority will find the money for a pilot as a 'lost leader' almost, and prove that it will work." (Cottdoc, Administrator and Development Consortium Member)

It is important at this point to make a distinction between changes **within** the current primary care system and changes to the current system. The issues of demand, funding, nurse support and triage can be addressed within the current system. Other issues may require changes to the system if they are to be addressed. One such is:

at what level and by whom should cooperatives be organised and administered?

The cooperatives studied were deliberately selected to represent a range of sizes and organisational patterns, from Smalldoc with its limited area, single centre, simple operation and minimal administration to Countydoc with its large area, six centres, complex operation and separate communications and administration centre. Each has advantages and disadvantages and there is no consensus within them on what is an appropriate size and management structure.

Broadly, the smaller cooperatives wish to remain small. They view simplicity as a virtue:

> "When you start off, you have to have a lot more rules. We had cars, we had drivers, we had fancy phones. But as time goes by you get more used to it and need less and less. We used to provide all the drugs, have emergency beds, all sorts of discussions about what things to get. When you are trying something new, you need the protection of systems, but as people gain experience, you cut corners." (Cottdoc, GP)

They do not wish to accept more members if this increases the area they cover. Smalldoc has been under pressure from the health authority to merge with a much larger neighbour and has resisted this

strenuously. What small cooperatives see as simplicity, flexibility and a local solution to local needs can be seen by outside agencies as introversion and parochialism.

> "There are other doctors around trying very hard to become part of Smalldoc. There're a lot of historical reasons for the difficulties, but nevertheless we do seem to have uncovered intransigence. Not all of them, but it's very much 'This was set up for [town] GPs and it's fine, so no thanks'." (Health Authority Officer)

In contrast, many of the GPs and other care providers interviewed believed that the future of out-of-hours care lies in the merger of existing cooperatives, the inclusion of GPs who currently fall between their boundaries, and the creation of umbrella organisations. These would provide centralised communications and triage systems and undertake administrative and management functions. Economies of scale could then be translated into additional centres and improved facilities.

While much of this could be done within the existing system (on a similar model to Countydoc where the ambulance trust has taken over all these functions), it was also suggested that these 'super-cooperatives' would not necessarily be owned and run by their GP members. Health authorities were quoted as the bodies who should assume responsibility for them, including their financing. This would involve changes to the current system. Health authorities are no longer providers, they are purchasers. In Fourdoc's case, where the FHSA had managed and administered the cooperative, once the FHSA became part of a health authority, they saw "an imperative for us to disengage". Other health authorities have stressed that the cooperatives are the GPs' out-of-hours service, to be managed and run by them. It is thus unlikely that health authorities would be prepared to accept this role as long as the internal market exists.

It is also debatable to what extent externally run cooperatives would retain the cooperative ethos. It is already argued by some that large cooperatives are little different from deputising services, though members argue that commercial services seek to create demand while they seek to control it.

Deputising services were **not** suggested as potential owners and managers of 'super-cooperatives' despite the fact that they already possess the systems and expertise necessary. Presumably their commercial orientation is unacceptable to cooperative members, though some cooperatives in fact employ them to provide night visits to patients.

At present, smaller cooperatives can only function if all members play an equal part in the rota. Larger cooperatives can afford to tolerate variations in members' willingness to work and have set up shift payment systems to reflect this. The administrators of 'super-cooperatives' would either have to impose rota commitments on members or introduce shift payments that were attractive enough to fill the rota (and possibly both, as in the Danish system). While GPs would undoubtedly welcome the payment of realistic fees for out-of-hours work, they are unlikely to welcome paying any external, profit-making agency for providing the infrastructure and managing an out-of-hours service that they themselves are expected to provide.

This leads to the issue of whether current systems should be replaced, in whole or in part, with a radically different system.

From the payment of fees for shifts and the voluntary loss of membership dues to avoid commitments, it is only a short step to a split contract for GPs with separately priced out-of-hours work. Increases in the number of salaried GPs with variable contractual commitments, which are likely to result from Primary Care Act Pilot Sites may take us further down this road. There are already cooperatives that employ one or more salaried night-time doctors. Given that there are many more GPs outside the large cooperatives who would choose to provide day-time services only, and given that fewer medical graduates are entering general practice, this could be a recipe for chaos. It is difficult to see how the additional manpower needs could be met.

Despite enjoying the benefits of cooperative membership, there was some limited support for a split contract among the GPs interviewed. It was also suggested that the day service and night service might become entirely separate entities:

> "I suppose the other issue with the co-ops is that it becomes a totally separate service. So there is an out-of-hours service which is manned by doctors who just do out-of-hours work and then there is a daytime service which is managed by GPs." (Cottdoc, GP)

The drawbacks of this were recognised:

- insufficient medical manpower to support it
- the undermining of the 'family doctor' concept

- the danger that the out-of-hours service would be second-rate, with lower status and less competent doctors
- the danger that the two services would be uncoordinated, creating communication gaps in patient care.

Rather than arguing for the separation of daytime and out-of-hours practice, many more GPs, along with health authorities, ambulance trusts and some A&E staff, believed that the future of out-of-hours care lies in greater coordination and cooperation between existing emergency services.

The centralised telephone triage system suggested for all GPs and cooperatives in an area could be extended to cover other emergency services. The services suggested for inclusion covered a broad range:

- GPs, their cooperatives and deputising services
- A&E, casualty and minor injury units
- ambulance services
- community-based nurses including district nurses, health visitors and community psychiatric nurses
- dentists
- pharmacists
- psychiatrists
- social workers.

Many of these services could be based together in existing GP health centres, community health clinics, primary care emergency centres, primary care resource centres or on hospital sites. The triage service might employ its own nurse practitioners or they might be employed by cooperatives or community trusts. The new telephone advice line service 'NHS Direct', which is currently being piloted in a number of areas and which aims to provide a nationwide service by the year 2000, is currently being promoted as a free-standing, alternative source of advice and information for patients. However, there is scope for its development as a single entry point into care outside normal surgery hours, with responsibilities for triaging calls and directing patients to the most appropriate source of care.

The degree to which different services could be integrated rather than just coordinated would depend upon local circumstances and attitudes but could be strongly influenced by commissioning/purchasing strategies.

> "I know in our circumstances it would be nice to have just one system for out-of-hours care, a complete streamlining – casualty, all general practice, all accident and emergency – all coordinated in one go. So you've got ambulances working with your casualty department, working with the GPs and all the emergency services. And you, as a GP, will be one member of that team." (Cottdoc, GP)

The greatest stumbling block to integration is resistance on the part of many A&E departments to anything that would open their doors to more primary care cases:

> "The two things [A&E and GP co-ops] have to be separate. It has to be independently financed and independently staffed. I do not subscribe to the idea of having GPs sitting in A&E so that everybody comes to A&E and GPs see the primary healthcare portion of it and we see the rest. I think it would bring confusion." (A&E Consultant)

Of course, GPs are similarly concerned about the impact on their own workload of being asked to see patients who have chosen to use A&E.

The extension of Primary Care Act Pilot Sites in 1999 to sites that want to merge funding streams should provide a unique opportunity for anyone prepared to experiment with integrated systems.

This section has drawn together the various concerns expressed by GP cooperative members, other providers of out-of-hours services, administrators and managers during the course of 114 in-depth interviews. It has identified five major issues and highlighted the views of interviewees on how these might be tackled. A number of potential service developments have been explored. However, clearly, there is a need for further research and evaluation to shed light on these important questions:

- What mechanisms can be introduced to manage and control demand within the existing out-of-hours system?
- How should cooperatives be funded in order to ensure that resources are distributed equitably, both from a provider and a patient perspective?
- What is the appropriate skill mix for providing a primary care emergency service that answers the needs of patients as cost-effectively as possible and how might this be attained?
- At what level and by whom should out-of-hours services be organised and administered?
- Is there a case for a radical restructuring of out-of-hours services generally and, if so, what form might this take?

There is no single model for the future to which all stakeholders in emergency care in any particular geographical area would subscribe. There is a wealth of ideas, but little sense of leadership and few 'product champions', except for the extension of cooperatives. As one GP expressed it:

"Time will tell. It's very political. I suspect what will happen is that we'll muddle through. I don't think there's a plan that someone's thought out that's any better and we will go from one problem to another and still end up doing it." (Leaddoc, founding GP)

Chapter 10
Conclusions

Implications for policy

This report has endeavoured to set out the advantages and disadvantages of current organisational and working patterns within cooperatives. It has raised a number of key issues associated with the future of primary care services out of hours generally where further research and evaluation would be valuable. During the fieldwork, more specific problems associated with particular cooperatives, particular geographical areas, or with the situation of individual practitioners were also identified. These too require further investigation, including:

- The out-of-hours Development Fund, while specifically mentioning the problems of isolated rural GPs, has apparently done little to ease the situation for many of them. Further efforts must be made to provide alternatives for those GPs who are unable to join cooperatives due to their geographical isolation. This could mean additional locum cover, or the employment of GPs by health authorities specifically for night cover in rural area.

- None of the case study cooperatives in this report officially provided transport to bring patients to emergency centres (though some did this on an informal basis). More research needs to be done into the advantages and disadvantages of patient transport, in terms of quality of care, cost and patient satisfaction.

- The cooperatives studied did not employ any objective measures on the quality of care provided. Guidelines, protocols, clinical audit and monitoring of activity were carried out to varying extents. More work is needed on the standardisation of these measurements and ways of producing comparable results.

- Although cooperatives were asked to provide details of their costs, there was extreme variability, which was difficult to measure. Added to this was the fact that the researchers had no expertise in health economics. Detailed studies into the cost-effectiveness and efficiency of cooperatives need to be carried out.

- Patient satisfaction with the treatment received was measured through a patient questionnaire, but the implications of the variability in treatment outcomes (whether telephone advice, centre attendance or a home visit) now needs to be addressed. Because of the great variability in cooperative location, organisation and patterns of care, there are also issues of patient equity and accessibility still to be tackled.

- The ownership of cooperatives remains a bone of contention. There are arguments both for and against the administration of cooperatives by the GP members, and for and against central administration by a specifically employed individual or team. There are issues of cost, time management and workload to be further investigated.

- There is a divide between those cooperatives which wish to remain small and self-administered, and those which are part of a much larger 'umbrella' organisation, and run from a central base. Larger organisations may benefit from economies of scale, but risk tensions arising from sectorisation. More work needs to be undertaken to assess which organisational models are the most successful.

This report has been unable to tackle three fundamental political questions in providing primary care outside normal surgery hours:

- Whose interests are paramount: government, providers or patients?
- Is it to be an emergency service or 24-hour access to primary care?
- Is it to be the responsibility of individual providers and provider groups or a broader regional or national responsibility?

An open debate is needed. A 24-hour access service, run to serve the interests and preferences of patients, with the responsibility resting on individual providers is a very different organisation to a regionally funded and managed emergency service that balances costs with the interests of professionals and patients. Until the spread of cooperatives, out-of-hours care was moving very much in the direction of the former, but with no

official recognition of this. The GPs who helped to form cooperatives have themselves tried to turn the tide. They have moved the responsibility from individuals to groups, re-asserted the need to balance professional and patient interests, and tried to stem non-emergency use of the service by decreasing the convenience of consulting out of hours through their use of centres. They have not entirely solved their problems, particularly with respect to demand, where they are now perceived to be more rather than less accessible.

Outside the cooperatives, there are still large numbers of GPs working in a patient-led, 24-hour access environment. There is the important issue of how to assist these GPs who have access to neither a commercial deputising service nor a cooperative and yet must somehow cope with the same rising demand levels. Their problems need to be addressed.

Recommendations for research

Finally, it was accepted at the outset by the NHS Executive Health Technology Assessment Programme that this largely descriptive piece of work could not answer the questions they originally posed about primary care emergency centres, but was a necessary precursor to refining those questions and informing further evaluations. In addition to the general lines of future research already noted in this chapter, we suggest that the following specific questions should be addressed.

- What role do organisational factors play in determining demand levels?
- What role do organisational factors play in determining patterns of care?
- How can services best be organised and configured to meet genuine needs while reducing inappropriate demand?
- Which organisational and management structures best meet the needs and aspirations of service providers?
- What impact on demand for and provision of 24-hour primary care services would the introduction of specific incentives and penalties (for providers and patients) have?
- How cost-effective are the various models of centre-based care, including those offering patient transportation, those run by commercial deputising services, those involving collaboration between commercial and cooperative services and those in which nurses are an alternative source of advice and treatment?
- What impact do primary care centres have on demand for A&E department care when they are geographically linked to or separate from those departments?
- What measures of quality of care are appropriate to centre-based, out-of-hours services and how can these be applied and monitored?
- What are the comparative clinical outcomes of different methods of delivering care, e.g. telephone advice, centre attendance, home visiting and referral to another agency?

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Appendix 1

Fieldwork timetable and summary of data collection

Site	Initial meetings	Interviews	Out-of-hours call logging	Log sheet returns	Patient questionnaire (undertaken by/when)	Valid patient questionnaire returns
Smalldoc	Jan 1996	Key informant (instrumental GP), seven GPs, six others	Fri 6 Sept – Fri 4 Oct 1996	653	NPCRDC, from 16/9/96 onwards	261/367 (71.1%)
Cottdoc	Jan 1996	Key informant (administrator), six GPs, six others	Fri 6 Sept – Fri 4 Oct 1996	403	NPCRDC, from 23/9/96 onwards	217/382 (56.8%)
Leaddoc	Feb 1996	Key informant (administrator), seven GPs, six others	Fri 11 Oct – Fri 8 Nov 1996	2436	Leaddoc, from 21/10/96 onwards	237/397 (59.7%)
Fourdoc	Jan 1996	Key informant (instrumental GP), eight GPs, ten others	Mon 11 Nov – Mon 9 Dec 1996	1893	NPCRDC from 7/12/96 onwards	211/379 (55.7%)
Nursedoc	July 1996	Key informant (administrator), six GPs, six others	Mon 17 Feb – Mon 17 Mar 1997	1490	Nursedoc, from 3/3/97 onwards	247/393 (62.8%)
Fardoc	April 1996	Key informant (administrator), seven GPs, six others	Fri 7 Feb – Thurs 6 Mar 1997	2579	Fardoc, from 17/2/97 onwards	217/400 (54.3%)
Countydoc	Jan 1996	Key informants (administrator and instrumental GP), 16 GPs, ten others	No call logging undertaken	N/A	No patient questionnaire undertaken	N/A

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This report was identified as a priority by the Primary and Community Care Panel.

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Copies of this report can be obtained from:

The National Coordinating Centre for Health Technology Assessment,
Mailpoint 728, Boldrewood,
University of Southampton,
Southampton, SO16 7PX, UK.
Fax: +44 (0) 1703 595 639 Email: hta@soton.ac.uk
http://www.soton.ac.uk/~hta

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