

# **QUALITY OF CARE: TESTING SOME MEASURES IN HOMES FOR ELDERLY PEOPLE**

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Edited by Justine Schneider

Discussion Paper 1245, Personal Social Services Research  
Unit, University of Kent at Canterbury

Tel: 01227 827891

Fax: 01227 827038

### *Project staff*

#### **Grant holders:**

Anthony Mann, Institute of Psychiatry, London

Enid Levin, National Institute for Social Work, London

Ann Netten, Personal Social Services Research Unit, University of Kent at  
Canterbury

#### **Research co-ordinators:**

Caroline Mozley, Institute of Psychiatry, London

Justine Schneider, Personal Social Services Research Unit, University of Kent  
at Canterbury

#### **Research workers:**

Alison Abbey, Institute of Psychiatry, London

Rachel Egelstaff, Institute of Psychiatry, London

Kalpa Kharicha, Institute of Psychiatry, London

Carein Todd, Institute of Psychiatry, London

**Project secretary:** Sue Sheldon, Institute of Psychiatry, London

**Statistician:** Bob Blizard, Institute of Psychiatry, London

**Economist:** Catherine Topan, Centre for the Economics of Mental Health,  
Institute of Psychiatry

### *Authors*

The Preface was written by Caroline Mozley, Chapter 2 by Anthony Mann, Chapters 3, 4 and 6 by Alison Abbey, and Chapter 8 by Ann Netten. Justine Schneider wrote the rest of the report, and edited the document..

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## **Summary: An exploration of the measures of quality of care**

In this national study of 17 residential homes, 309 residents were interviewed, 264 members of staff completed an anonymous survey, and 228 relatives responded to a postal questionnaire. The data were collected between January and September 1995.

### ***Aims***

The aim of the study was to suggest promising measures of quality of care, looking particularly at depression as a possible indicator. It also served as a follow-up study of the Caring in Homes Initiative, although its timing ruled out evaluation of the impact of this development programme, because changes occurred in the homes before this study began. No strict definition of quality was adopted a priori, but a pragmatic approach was taken, addressing the perspectives of residents, health and social care professionals, home staff, managers, and relatives.

### ***Method***

A wide range of instruments was used. The rich multi-dimensional data set has been analysed at the level of the residential homes, and scores for each home on over 100 variables are presented in the final report. Data from relatives are analysed together since these were anonymous replies. A chapter in this report is devoted to each of the topics outlined below.

### ***Profile of homes and their residents***

Although the sample of residential homes was not random, and too small to be representative, the profile of the homes and their residents is probably typical. On average homes had 29 residents, with a mean age of 85, 24 per cent of them male (Table 1). Overall, the residents were moderately disabled; 72 per cent had a mobility problem, 40 per cent had impaired hearing, and 46 per cent had impaired vision (Table 5). Seventy nine per cent were judged to be confused and 37 per cent were very confused (Table 1).

Of the 194 who were able to respond to questions about depression, 40 per cent were depressed, and the range between homes was 21%-60% (Table 2). Only 30 per cent of these cases (23 out of 77 respondents) were receiving anti-depressant medication. In four homes, no resident who responded was receiving anti-depressant medication at a therapeutic dose, and in two homes, nobody was receiving anti-depressants at all even though at least 21 per cent were depressed (Tables 2 and 3). Our findings concerning high levels of depression echo those made 20 years ago, which suggests a lack of detection and treatment of this disorder.

Many drugs can have undesirable side effects in elderly people in the longer term. Most residents were taking 3 or 4 different medications, 47 per cent were taking analgesics, 35 per cent diuretics, 23 per cent hypnotics, 19 per cent major tranquillisers, and 18 per cent anti-depressants. There was considerable variation between homes in the prescribing of important psychotropic drugs, such as major tranquillisers, or phenothiazines (5%-28%), hypnotics (0-38%), and common prescriptions to help physical disorders, such as analgesics (25%-75%), and diuretics (12%-60%) (Table 3). This variation in prescribing practice was not explained fully by differences in the health status of residents. High use of major tranquillisers suggests that they may be used to treat behavioural problems sometimes associated with dementia.

We also found that common health needs such as immobility, instability, hearing and visual impairment were not always properly treated. However, when such physical needs as these were met, residents were significantly less likely to suffer from depression. This finding of an association between physical and psychological well-being was one of the most important outcomes of the study.

### ***Policy and documentation***

One difficulty in evaluating policy and documentation is to test any relationship with practice or attitudes in the home. It is possible that excellent policy, procedures and documentation are not reflected in excellent care. We interviewed managers about policy, and evaluated care plans on four dimensions; physical, emotional, social and cultural - setting 26 weeks as the limit for a plan to count as being 'up to date'.

We found few differences between homes on such dimensions as 'policy choice' and 'provision for privacy' (Table 6). The differences found in terms of 'organisation' and 'policy clarity' were reflected in the homes' scores on the completeness of care plans. Two homes showed outstanding scores, with another home demonstrating a deficit in the religious and cultural aspects of its care plans, but otherwise scoring well. However, high standards of documentation were relatively rare (Table 7).

### ***Social, occupational and physical environment***

Provision of opportunities for daily occupation and social activities was thought to be an important aspect of a home's environment. Only 23 per cent of care plans referred to residents' social needs (range 0-100%). Managers and staff showed similar variability between homes in their judgements of occupation in homes (Tables 8 and 9). Residents' interviews showed that the proportion of people participating in common pursuits (reading, socialising, domestic tasks; Table 10) was much lower than for elderly people aged 70 or over living in their own homes. Of course the level of disability in the latter group would be lower than for people in this study.

Judgements about the physical environment by staff and managers did not accord with our researchers' ratings (Table 11), suggesting that such judgements are highly subjective and consequently unreliable.



### ***Staffing considerations***

There was a five-fold variation in the official staff-to-resident ratio for total staffing levels in the homes (0.11 - 0.58 for all staff; 0.05 - 0.25 for care assistants only) (Table 12). For the staff who responded, sickness levels were higher in the local authority than the private and voluntary homes in this study. It remains to be seen whether this is a general phenomenon, but the fact that private and voluntary homes staff seldom receive sick pay might be a disincentive to taking time off. Of the staff responding to the General Health Questionnaire (50% of those to whom it was given), 27% rated as depressed, ranging between homes from 4 per cent to 71 per cent (Table 14).

Staff also raised issues reminiscent of those found elsewhere: complaints about residents' behavioural problems, staff pay, staffing shortages, lack of resources and changes in conditions of service, and the sense that difficulties are made more intense by the presence of more dependent residents.

Fewer than two members of staff per home had vocational qualifications, and they were usually managers. The mean length of service for staff was about 7 years (range 1-11 years). The age profile of homes' staff differed considerably; some homes had nearly half of their staff under the age of 30, while others had as few as 8 per cent under this age (Table 15).

### ***Visitors' satisfaction***

Most visitors to the home were the offspring of residents, and 68 per cent had been the resident's former carer (Table 17). Nearly half of the visitors went to the home one or more times per week. Less than 30 per cent stated that they offered what might be termed informal care; taking the resident out, doing chores, or personal care tasks, although frequent visitors provided more informal care than others.

We counted the number of things which visitors liked about the home (its comfort, helpful staff, good facilities, for example) and the number of things they disliked (the building, lack of activities, shortage of staff). The number of likes and dislikes per respondent showed some variation between homes. It should be noted that some homes might actively encourage constructive criticism from visitors (Tables 20-21).

### ***Ranking analysis***

We attempted to synthesise our findings by ranking the homes on 25 variables (Table 23). Several homes performed consistently better (Table 24). We also estimated the subjective experience of residents and visitors concerning their likes and dislikes about the homes. This did not appear to be associated with the homes' ranking. This may be because a good home fosters constructive criticism, so that quantitative measures of likes and dislikes are not applicable.

The researchers' assessment of the homes was not a good predictor of the residents' and visitors' views. We conclude that consistency between subjective and objective measures of quality has not been found in this study. It should also be remembered that the low ranking homes are not less good in an absolute sense, but only relative to the high ranking homes, since ours was not a representative sample of homes.

## *Costs*

This study provided a rare opportunity to explore the relationship between costs and quality of care. Costs were analysed in detail for each home using its accounts for 1994-5. Capital, revenue and total costs per resident week were devised, taking account of occupancy levels. The mean cost per week was £258 (range £184-442) (Table 27). But residents also received other services than those covered by the home's fees, notably hospital care, primary health services, professions allied to medicine, and social services. These add an average of £15 per resident week to the cost of care, making the mean cost £278 (range £206-468) (Table 29).

Local authority homes incurred the highest costs. These homes were found to provide more short term care. An interesting finding concerning costs was relatively high consumption of community health services by residents in private homes. If a general occurrence, this may have implications for the local health service in view of the trend towards the increasing use of private provision for publicly-funded residents. In a larger study, comparisons might also be made between residents who are patients of GP fund-holders and non-fund-holders.

## *Conclusion*

We can say with confidence that some homes performed consistently better than others on our range of instrumentation. Relatives' and visitors' opinions were not good predictors of this performance, which suggests that it is vital to take both subjective and objective measures in evaluating quality, and that consumer views need to be interpreted in the light of contextual information about the home. Our quasi-inspectors, the researchers, confirmed the finding of previous research that consistency in outsiders' assessments is rare.

On such a multi-dimensional concept as quality, unanimity would be impossible to achieve. Some consensus on tools for assessing care, however, is desirable since comparisons between homes must be made by a range of persons. These tools ought to be comprehensive, valid and founded on evidence of good outcomes. The 25 variables included in our final analysis go some way towards meeting these criteria; they have face validity and they cover a broad range of dimensions of care. Many of the tools used have been tested in previous research, and some new ones devised for this study show considerable promise, including those developed to measure health needs, evaluate care plans and study activity in homes. Therefore they are recommended for further applications.

## *Further work*

The cross-sectional nature of this study prevents interpretation of its data in terms of objective outcome measures. However, we are collecting information about the destination of the people studied one year on. This will enable us to look at the links between our subjective and objective findings, and morbidity or mortality amongst the homes' residents. We shall see if residents of some homes are more likely to move, deteriorate or die than residents of other homes. In the light of such evidence about outcomes for residents, it will be possible to compare subjective and objective judgements of quality. The data

reported here also lend themselves to further analysis, and this will be undertaken over the next six months and reported with the findings of the continuation study.

## Preface

Any attempt to distil the essentials of quality care by studying the ways in which that care is provided should begin from an understanding of how things came to be the way they are now. As with all other social institutions, today's homes for elderly people represent the current stage in a process of historical development and must be viewed in that context.

The problems of providing care for people who are both old and of limited means are not new, although in previous centuries fewer people than today lived long enough for the major diseases of ageing to appear. People of sufficient means to make themselves independent of public provision have always made their own arrangements, but the less wealthy present society with the need to use communal resources to pay for their care. This has always been a highly political issue. It is one which each generation addresses in a different way but the underlying themes are recognisable over several hundred years.

For centuries all forms of care outside the family were provided under the Elizabethan Poor Law in the same way as for orphans and the destitute. In 1834, the Poor Law Amendment Act denied all 'outdoor relief' to paupers except for the aged and infirm - these were the only people judged to be deserving of assistance without having applied to them the disincentive of the 'workhouse'. Separate institutions (known as hospitals or infirmaries) for the aged infirm began to be set up in the 1880s - for people defined as being old poor and sick.

For most of the twentieth century social provision for older people has been dominated by the attempt to distinguish between older people who are 'sick' and older people who are 'in need of care and attention' by reason of being old - but not 'sick'. The Local Government Act of 1929 brought the old Poor Law Infirmaries (which were by then very unpopular) under the control of Public Health, as opposed to Public Assistance Committees. This apparently minor administrative rearrangement had far-reaching effects. The aim was to raise the standards of medical care in the infirmaries closer to that found in the best voluntary hospitals. With the emphasis on cure, rather than care, went a degree of exclusivity in choice of patients. The statutory right of entry for the destitute, which had formerly existed, was lost.

The 1948 legislation which brought in the Welfare State was thus not written on a clean slate. The National Health Service embraced both the voluntary hospitals and the former infirmaries while Part III of the National Assistance Act gave local authorities a duty to provide accommodation for elderly people 'in need of care and attention'. The distinction between health care and social care was solidified by this 1948 legislation. As doctors became able to offer more effective treatment for acute disorders, care of those with chronic disorders increasingly came to be seen as something which should take place elsewhere. Hospitals became focussed on acute illness and concerned about

'bed blocking'. Meanwhile, the local authority homes set up under the National Assistance Act were never intended to be nursing homes - they were thought to be mainly for providing accommodation for older people who would otherwise be lonely and who needed fairly minimal help and supervision. This was probably always unrealistic, and various studies have shown high levels of physical and mental disability in residential home residents (Charlesworth and Wilkin, 1982; Mann and Graham, 1982). Bebbington and Tong (1986) showed that the proportion of 'severely dependent' residents in local authority homes had increased from 17 per cent to 24 per cent between 1970 and 1981. The boundaries between nursing home and residential provision are increasingly blurred, although the two sectors continue to be inspected separately by health and social services departments respectively.

Local authorities, unlike the NHS, were empowered to charge for the services provided in homes for elderly people and so a parallel system emerged, with people receiving long term care in hospitals for which they did not pay, and others, including some with similar levels of dependency, contributing towards their care in local authority homes. Until recently, there was no public debate about the fact that family finances could thus be greatly affected by professional decisions at the uncertain boundary of medical and nursing care. Significant changes in the last fifteen years or so mean that many more people have been faced with the reality of paying for care and its impact on family resources and inheritance prospects. Issues of equity have become apparent between people in long stay hospital beds for which no direct charge is made, and those paying for care in nursing or residential homes. This has brought about an increased level of public interest in how these services are provided, and paid for. In addition, withdrawal of some local authorities from provision of residential care and a tendency for the NHS to focus more on acute services, have led to a requirement that health authorities issue guidelines on eligibility for continuing care in consultation with local authorities, to work towards some consistency after April 1996 (HC 95(8)).

In 1979, social security changes made it possible for people who were not at all wealthy to be cared for in private homes, paid for by public money. At that stage there were no cash limits on the funding and the private sector expanded to meet the demand. Between 1979 and 1989 the number of places in private residential homes in England rose by 323 per cent from 32,000 to 135,000. Public expenditure on long term residential care rose 100 fold, from £10 million in 1970 to £1,000 million in 1989. Until 1993, the availability of state funding for admission to non-statutory residential care encouraged the growth of the private residential care sector, and government policy favouring the promotion of small businesses gave added impetus to expanding numbers of private homes. This was fuelled in the mid-1980s, both by rapid rises in the value of property, making such investments attractive from the proprietor's perspective, and by the impetus towards the closure of long stay institutions. Elderly people leaving the long stay wards of geriatric and psychiatric hospitals increased the supply of clients for the private sector. Private providers had overtaken local authorities in terms of bed numbers by 1989 (MEOC Bulletin 3, 1994), and by 1994 there were 138,000 private beds, 59,000 local authority beds and 36,000 voluntary beds nation-wide (residents aged 65 and over; Tables C, D and E, Department of Health, 1994). It should

be noted that in total no more than 5-6 per cent of people aged over 70 were accommodated in any form of residential care (Challis, 1992; Hugman, 1994).

The Audit Commission (1986) drew attention to the fact that state funding for people entitled to social security who wished to enter residential care was a perverse incentive which increased the demand for beds. Growing demand for residential care can however be attributed to a number of factors. Increased life expectancy has been accompanied by increasing levels of disability due to old age. Dementia affects 25 per cent of those over 80 (Hoffman et al., 1991) and this is often particularly difficult for families to manage at home. About two thirds of people in residential care have been found to have dementia (Mann and Graham, 1982; Ames et al., 1985; 1986). The next generation of offspring, from which carers most frequently come, are often themselves elderly and may have some associated infirmities. The increased involvement of women in paid employment and the increased number of single parent families have also reduced the pool of available home carers.

Undoubtedly, all these factors have had some influence in increasing demand, but much of the post-1979 rise in residential care can be explained by greater supply brought about by favourable social security legislation. Before 1979, people of limited means could only apply to enter local authority homes, demand exceeded available places and waiting list admissions were rare because emergencies had to take priority. The new funding arrangements and the growth of the private sector meant that for the first time the market was responding to demand.

The National Health Service and Community Care Act 1990 again altered radically the market for residential care. The spirit of the reforms included: maintaining people in their own homes as far as possible (this aim was by no means new), making a sharp distinction between the statutory purchasers and providers of care, offering greater consumer involvement and choice, and fostering a 'mixed economy' by involving the independent sector, all the while maximising value for money. The principal means by which this was to be achieved included the transfer in 1993 of about £500 million from social security to local authorities, to fund new residential placements, with the proviso that no more than 20 per cent be spent on services provided by the local authority.

Thus, in recent years, reliance has increasingly been placed on the market as the mechanism for reconciling demand for long term care with its supply. There has been a retreat from central planning and direct public provision toward provision by numerous independent agencies regulated by external inspection. More placement decisions are made by elderly people or their relatives, frequently paying the full cost from their own resources, even if state funding takes over at a later date. This has emphasised the importance of choice, and consumers (residents or carers and professionals acting as their agents) have growing influence in the market for care.

However, decisions about purchasing care are more complex than decisions about purchasing most commodities. The perfect operation of a market (in practice, of course, never attainable) requires, amongst other things, perfect knowledge on the part of those exercising the demand choice. In fact, the knowledge of purchasers in this market is often very limited. Elderly people and their relatives may never have crossed the threshold of a residential home before having to make a choice at what is usually a time of crisis. They may

have few ideas about what to look for, or what it is reasonable for them to expect. It is not uncommon, for example, for relatives to think that a pervasive smell of urine in a home is inevitable. Unless they have learned that this is not the case, their expectations will be inappropriately low.

Professional purchasers or inspectors of care may have knowledge to draw upon but even this does not provide all the answers. Certainly most professionals, if asked to select a home for their own mother, would have no difficulty in doing so. They might, however, have difficulty in specifying the care components which figure in their estimation or in attaching relative weightings of importance to them. It is much simpler to identify outstanding homes in a given area than to make consistent judgements about a much larger number of homes. Lack of consistency even between inspectors was noted by Gibbs and Sinclair (1992).

The purpose of this study was to find ways in which inspectors and purchasers (lay or professional) can be given a better understanding of what constitutes good quality care, and what it is likely to cost. In this context 'better' is taken to mean more consistent, more rational, founded on a knowledge base which is wider than that held by individual professionals. It also encompasses not just the easily-measured dimensions of physical facilities and specific services but also something of the elusive but crucial dimension which is commonly called 'atmosphere'.

Thus, the aims of the study were to identify and test a number of possible measures of quality of care in residential homes. The measures include commonly-used instruments, less well known validated instruments, and some devised for our purpose. By applying an eclectic set of scales in a diverse set of homes we set out to elicit those measures which discriminate between homes and which might be used in a study of a more representative sample of homes. But before presenting the data, it is necessary to explore the concept of quality, and to explain the background to the study and the method used here.

This report, detailed as it is, serves as the principal repository of most of the information gathered throughout the two-year study (March 1994-February 1996). Even so, the data presented have already been selected for their relevance and interest. Certain elements will receive greater attention than others, and it is hoped that further, more complex analyses will be undertaken in future.

Diagram 1: Intersections of instruments, topics and points of view

	RESIDENT/VISITOR	HOME POLICY	HOME ENVIRONMENT	STAFF	COSTS
RESIDENT	QUESTION OF QUALITY VISITORS' QUESTIONNAIRE BAS	QUESTION OF QUALITY VISITORS' QUESTIONNAIRE	QUESTION OF QUALITY VISITORS' QUESTIONNAIRE	QUESTION OF QUALITY VISITORS' QUESTIONNAIRE	RESIDENT INTERVIEW SERVICE RECEIPT DATA
ADMINISTRATIVE SYSTEMS	CARE PLAN ASSESSMENT OF HEALTH NEEDS MEDICATION	QUALITY OF CARE PLANS		STAFF ROTAS AND ABSENCES STAFF TRAINING	BUDGETS AND ACCOUNTS CARE PLAN SERVICE RECEIPT DATA
MANAGER	MANAGER JUDGED WHETHER RESIDENT COULD GIVE INFORMED CONSENT TO BE INTERVIEWED	POLIF MANAGER'S QUESTIONNAIRE	POLIF MANAGER'S QUESTIONNAIRE	STAFF LENGTH OF SERVICE STAFF AGE GROUPS	BED NUMBERS AND OCCUPANCY RATES
STAFF	KEY WORKER ASSESSMENT OF HEALTH NEEDS CAPE BEHAVIOUR RATING BARTHEL ADL SCALE	SCES	SCES	GHQ	KEY WORKER SERVICE RECEIPT DATA
RESEARCHER	NURSE ASSESSMENT OF HEALTH NEEDS MEDICATION	CARE PLAN ANALYSIS OF FREQUENCY AND DEPTH	RATING SCALE V	QUIS RATING SCALE V	

**KEY**

- BAS Brief Assessment Scale, Gurland et al., 1983.
- POLIF Policy and Procedures Information Form, Moos and Lemke, 1994.
- SCES Sheltered Care Environmental Scale, Moos and Lemke, 1984.
- QUIS Quality of Interaction Information Schedule, Dean et al., 1993.
- GHQ General Health Questionnaire, Goldberg and Williams, 1988.
- CAPE Clifton Assessment Procedures for the Elderly, Pattie and Gilleard, 1979.
- ADL Activities of Daily Living, Mahoney and Barthel, 1965.



## 1. Introduction: defining quality in residential care

Quality of care is multi-faceted. Judgements may be made from a number of perspectives: those of purchasers, taxpayers, home owners, relatives, residents or staff. Most importantly, running through definitions of quality, is the dichotomy between subjective and objective perspectives. Many, if not all, criteria of quality can be formulated subjectively, prioritising an individual viewpoint (normally the resident's), or they can be assessed by more objective means, postulating a defined standard and measuring it as independently as possible. The debate about objective and subjective facets of quality is extensive (Bigelow et al., 1982; Barry et al., 1993; Oliver et al., 1995).

Any evaluation of residential settings for elderly people inevitably encounters the difficulty that a high proportion have dementia and, although some information can be gleaned from most people with dementia, this may not be comparable with data gathered from people without cognitive impairment. This fact tends to favour more 'objective' methods, even though these may entail dubious interpretation of the behaviour of severely demented people with whom communication is difficult. In this study the sample comprised three groups of people; those who were not cognitively impaired, those who were moderately affected, and those who were severely impaired. Our measures needed to accommodate all three groups.

### *Background to this study*

The Wagner Committee was convened to report "what changes, if any, are required to enable the residential sector to respond effectively to changing social needs" (Wagner, 1988, p. 1). Partly in response to this report, the Department of Health set up a programme called the Caring in Homes Initiative (CHI). This two-year programme of development focussed on staff training and supervision, quality monitoring, information about homes, and links between residential homes and the local community. The CHI was co-ordinated and evaluated, and is described fully by Youll and McCourt-Perring (1993).

The research described in this paper was conceived partly as a means of testing the longer-term impact of the CHI, to evaluate the sustainability of changes brought about in the homes. Unfortunately, so much time elapsed between conception and fruition that many CHI participating homes had altered beyond recognition. Instead, they were used as a sampling frame, to supply homes for our sample which are of known quality.

The research described here was also guided by previous work on the prevalence of depression in homes for elderly people (Mann et al., 1984; Ames et al., 1988; Ashby et al., 1991). The presence of unrecognised and untreated depression was therefore adopted as one indicator of poor care.

Because of the fact that our topic, quality in residential care, is multidimensional and rather undefined, the method employed in this study was pragmatic and exploratory. The research reported here can be seen as an attempt to generate hypotheses, and some of its findings are presented in our concluding chapter as hypotheses for further testing.

In addition, in the light of the emphasis placed on consumer perspectives by the Wagner report and subsequent policy, subjective indicators of quality were derived using data from the residents' interview and from the visitors' interview. Both of these were measures of satisfaction. Finally, our researchers also rated the homes, and the sample of 17 homes could be dichotomised according to this scale.

With the above reference points, which we shall call here our criteria of quality, the research set out to explore what Gibbs and Sinclair (1992) have called the 'correlates of quality' in residential homes caring for elderly people. It did so by administering a wide range of instruments comprising numerous possible indicators of quality and testing these to see whether they could discriminate between homes of different kinds.

The research design incorporated a number of measures, and a limited number of homes were studied in considerable detail. Since we wished to explore associations of indicators of quality within and between homes, we included for the most part homes of known quality. The sensitivity of the measures chosen could be judged by their ability to discriminate finely between the homes selected.

### ***Method***

Eight homes were selected for the study, either because they had participated successfully in the CHI staff development module, or on other criteria, such as BS5750 accreditation. These were matched with eight homes in the same locality where possible, the same sector (private, voluntary or local authority) and of similar size. The researchers were blind to the group membership of the homes. The geographical span of the study was the whole of England, with homes in the north east, the north west, East Anglia, the midlands, London and the south coast.

### ***The sample***

The changing market for residential care affected the study design, for as time passed, managers who had participated in the CHI moved on, and homes closed or altered their admissions policy. To achieve roughly equal numbers, in one area a home had to be matched with two homes instead of one. It soon became apparent that one of our hypotheses, that levels of unrecognised and untreated depression in CHI homes would be lower than in other homes, could not be tested properly, due to the number of changes which had affected homes since the CHI.

We recruited to the sample two homes for Asian elders, and this had implications for design of instrumentation, interviewers and interpretation of data. Nine local authority homes, four private establishments and four homes run by housing associations participated in the study, so the sample which we obtained was biased towards the local authority sector. This is regrettable,

given that the number of local authority managed residential homes is stable or shrinking, whilst the private and voluntary sector is expanding.

Generally, local authority homes were eager to participate, whereas private homes were difficult to recruit. Those which had participated in the CHI and to which we obtained access were small homes with proprietor-managers in most cases, and recruiting matches for these was difficult. After approaching no fewer than eight homes in one area, we made an exception to our guidelines stating that the pairs should be in the same locality. This compromise was made due to the time scale and resources of the study. The recruitment difficulty in the private sector leads us to observe that since this is the growth area in future the inspection route may be the only effective point of entry to residential care for academics and advisory professionals - private homes are autonomous and seemingly more protective of their privacy than any public institution.

Power calculations meant that we needed to interview 280 residents. Thus to achieve this sample size we included in our study a total of 17 homes, which accommodated about 350 residents. Although they were spread throughout the country, the homes were not representative (and could not be because we lack a methodology to draw such a sample). Therefore caution should be exercised in interpreting the data.

The non-response rate for this study was 24 per cent: 6 per cent of residents declined to be interviewed; in 5 per cent of cases relatives, GPs or a solicitor refused to permit the interview; 6 per cent of those approached were unable to communicate with the researchers; and 7 per cent were too frail, ill or in hospital. The people interviewed are taken here to be representative of the residents in the homes studied, although it is possible that some bias operated excluding the more disabled residents.

### ***The instruments***

The instruments used are summarised in Figure 1. They were administered by a research team made up of a nurse researcher and a social researcher working together. They included several standardised questionnaires and others designed for this study. They can be grouped according to the main area of data collected by each, pertaining to:

- characteristics of the homes' residents, including their physical and psychological well-being,
- the homes' administration, policy and procedures,
- the homes' social and material environments,
- staff behaviour, training, opinions, and ratio to residents,
- satisfaction on the part of residents and relatives, and
- costs.

These broad areas of interest can be further subdivided according to the perspective from which they are investigated: staff, managers, consumers (residents or visitors) and researchers. Diagram 1 shows how the above topic areas and the respondents in this study are covered by our research tools. It

also indicates the areas where overlap occurs, thus permitting some internal validation of the findings.

### *Theoretical approaches*

For our purposes here, the home was the principal unit of analysis. We organised our data using a production of welfare model, as a means of portraying the complexity of interactions between the different elements of residential care (Davies and Knapp, 1982). This model distinguishes between inputs, outputs and outcomes (Donabedian, 1980). There are two kinds of inputs. The first is those which are not resource based and others which are directly related to the resources of the home. For instance, the characteristics of residents are taken to be non-resource inputs, in that they are mostly given, and vary from home to home. These have been treated here as structural variables and were controlled for in our final analyses, since they are assumed to be independent of quality of care.

The second kind of input can include characteristics of staff (levels of pay, training, length of service). These are taken to be mainly resource-related inputs, since the home's expenditure on staffing can be seen to have a direct influence on such factors. Of course, the local labour market and educational opportunities are beyond the control of the home's budget, so to some extent staff characteristics might also be seen as non-resource inputs. Other (mainly resource-related) inputs include the physical environment of the home, the policies, procedures and managerial approach employed there, and the medication used. We have also taken the frequency with which relatives visit to be a resource input to the home, since we found that a high number of the respondents to our relatives' questionnaire visited twice a week or more, many undertaking personal care or chores, and thereby supplementing the staff input to the home. It also seems reasonable to assume that the presence of relatives or other visitors on a regular basis will affect the social ambience of a home.

Inputs of both kinds combine in processes, which are sometimes called outputs. In a home for elderly people the sorts of processes which are of interest will include: the nature of the social environment; the psychological well-being of staff working there; and the extent to which individual needs are met, for example. The social climate in a home, the level of activities provided, and the proportions of negative interactions witnessed by non-participant observers are further processes which were measured in this study.

Costs are causally linked to resource inputs, and therefore can be examined in relation to them, but they are not themselves outputs, rather, costs can be seen as by-products of the production of residential care.

Outcomes are the prime focus of any evaluation. Ideally, prior to undertaking a study such as this one, we might have adopted a 'gold standard' outcome, a sine qua non of residential care which supplied proof not only of the presence of quality but also of its degree. However, just as there are numerous definitions of quality, the outcomes which are considered to be valid indicators of quality vary widely.

Moreover, in a cross-sectional study such as this, a number of assumptions must be made about the relationship of outcomes to inputs and outputs. A longitudinal approach would generate more robust outcome measures, such as morbidity and mortality, and we intend to collect these data in due course. In

the meantime, the findings of this study are reported here under the different headings suggested in Diagram 1.

### *Outline of this report*

In chapter 2, we profile the study population, which will enable comparisons to be made with other research. It should be noted that, although the homes in this study can not be described as representative, their residents are fairly typical of elderly people in residential care.

The policies and procedures of homes are of interest to those who regulate the care which they provide. They are generally accessible to independent monitoring and so may offer assurances of quality which can be regulated. In chapter 3 we look at associations between selected administrative measures, which are relatively objective, and other potential measures of quality which pertain to residents and their satisfaction.

The material environment of homes is a subject upon which every person who crosses the threshold may have a different opinion. Many people will agree upon certain standards for the physical environment, such as a choice of food, single rooms, private baths and adequate communal space. However, the social atmosphere of a home may be as important as its physical environment. In chapter 4 we look in detail at some of our measures of social interaction focusing on activity levels, together with global measures of the physical environment from different perspectives.

Staff attitudes and behaviour are fundamental to the functioning of a residential home. Many factors are implicated in staff performance, including training, experience, support and supervision, interactions with residents and awareness of their needs. Chapter 5 brings together many of these measures to profile staff in the homes studied.

The data collected from relatives and visitors are reported throughout the relevant chapters, but in addition the profile of visitors, their likes and dislikes is discussed in some detail in chapter 6. The responses to our relatives and visitors questionnaire constitute an important body of information from these consumers of residential care, and by presenting the data together in this chapter we seek to retain the integral nature of our findings.

In chapter 7, we draw together a selection of our criteria of quality, selecting those which vary most, to test for correlations between different variables. Costs should not be overlooked in evaluations of quality, and indeed costs are of paramount consideration in residential care. Any simple associations between costs and quality have hitherto proved difficult to establish. It was therefore seen as fundamental to this study to look at the costs of the care provided in the homes. In so doing, we were particularly interested in any hidden costs, such as services provided by health authorities, local authorities or volunteers, or services bought in by the residents themselves, which may effectively supplement the homes' care.

The brief concluding chapter outlines the implications of these findings for instrumentation and future research and practice. It also presents the rationale and aims of our continuation study, due to report in early 1997.

## 2. Characteristics of the study sample, depression, medication and responses to health needs

The seventeen homes in the study varied in many respects which might have an effect on the quality of care. In this chapter some measures of disability are discussed, and we go on to look in greater detail at depression in our sample, medications and other responses to health needs.

The characteristics of residents in terms of their types and levels of disability may be considered as analogous to the medical concept of 'case mix'. The case mix in a home is an important factor to take into account in any evaluation of its quality. For example, people with high levels of disability may require higher staffing levels. Resident participation may be impeded by problems of communication or mobility. Residential care is overwhelmingly care of people with dementia, which may affect the atmosphere in numerous ways.

Table 1 summarises the 'case mix' for the people interviewed in the study. They are taken to be representative of the residents of the homes. It presents descriptive information, home by home, including the size of the study sample in each home, the total occupancy of the home, whether or not it was run by the local authority, the mean age of residents, and the percentage of men interviewed in our study. Residents' mean length of stay in the home is also given.

In table 1 scores are given for the Clifton Assessment Procedures for the Elderly (CAPE) Behaviour Rating Scale (BRS) (Pattie and Gilleard, 1979) and the Barthel Index of Activities of Daily Living (Mahoney and Barthel, 1965). It is important to note that these two scales are scored in opposite directions: the higher the CAPE (maximum score 41) the more dependent a person is, and the higher the Barthel the more independent a person is (maximum score 20). CAPE scores are also graded from A to E in table 1. Here, A represents the lowest scores (0-3) and E the highest (18+), corresponding to a level of dependency which usually requires continuing care. CAPE also includes questions about vision and hearing. The percentages of people with impaired vision and poor hearing are given in the last two rows of Table 1.

A significant aspect of case mix for the purposes of this study is the proportion of subjects with dementia. We used the Brief Assessment Schedule (Gurland et al., 1979) to measure level of dementia, and in table 1 two rows give measures of dementia in the homes. The percentage of people with a dementia score on the BAS of 2 were judged to have some level of dementia, and people with scores exceeding 2 were rated as severely affected.

Table 1 tells us that the homes ranged in size from 12 to 41 residents, that nine of them were run by the local authority, whilst the rest belonged to the private (4) or voluntary (4) sectors. There was little variation around the mean age of 85 except in the case of one home with a mean age 71, which was specially

built for Asian elders, and the intake appears to have been different from other homes. It also has an exceptionally high mean Barthel score, and a low CAPE score, suggesting that the residents are less dependent than in other homes. Nevertheless, the levels of dementia found in this home were not significantly lower than in other homes.

It is striking to note the high proportion of residents in all homes who have any level of dementia: 79 per cent, up to 100 per cent in one home, and a minimum of two thirds of residents. The range of residents with severe levels of dementia was from 17 to 56 per cent (mean 37%). The proportion of people who had impaired vision or hearing taking account of glasses and hearing aids was on average 14 per cent in each case, with a maximum of 35 per cent for visual impairment and a maximum of 36 per cent for hearing impairment.

*Table 1 'Case mix' in homes*

	MEAN	RANGE
INTERVIEWED	309	9-23
SIZE OF HOME	29	12-41
MEAN AGE	85	71-89
% MEN INTERVIEWED	24%	0%-50%
TIME IN HOME YEARS	3.3	1.5-6.2
MEAN CAPE SCORE	11.6	8.3-15.1
CAPE CATEGORY	C	C-D
MEAN BARTHEL SCORE	14	10-17
% WITH SOME DEMENTIA	79%	65%-100%
% VERY DEMENTED	37%	17%-56%
% MOBILITY PROBLEMS	67%	43%-88%
% IMPAIRED VISION	14%	6%-35%
% IMPAIRED HEARING	14%	0%-36%

### *Depression*

Recording the level of depression amongst the residents in our sample, and comparing the homes in this respect, was considered an important part of the research. We regard depression as a clinical state that materially lowers quality of life for the sufferer, and yet is a condition that, if detected, can be effectively treated. Recognition and treatment of this condition should therefore illustrate the effectiveness of a home in delivering good quality health care.

Depression was assessed, as with dementia, by the Brief Assessment Schedule (BAS), a standard measure that has been validated over 20 years for studies of frail, older people. Our researchers were trained in its use. The interview is so structured that those respondents with severe dementia (memory loss and complete disorientation) were detected at outset, so the depression section of the interview was not then administered to these subjects. The results for depression, therefore, refer only to those 194 residents with moderate, mild or no dementia, reflecting 63 per cent of the sample of residents. We present the results on depression from the 17 homes in 4 ways shown in Table 2.

The BAS depression scale has a maximum score of 26. The mean score for the residents interviewed in each home, and standard deviation around the mean, will reflect the general level of depressive complaint amongst the residents of the home (row 2). The percentage in each home whose score lies above the cut point 6/7, indicates a probable case level of clinical depression (row 3). This is a level at which a psychiatrist would feel that some intervention was necessary.

The percentage of those probable cases of depression who are recognised by the key worker - the member of staff who knows them best - (row 4) and treated by anti-depressant medication (row 5) are not necessarily the same. Anti-depressants will be prescribed by the general practitioner, and should reflect both the staff's recognition and also the general practitioner's treatment approach.

The proportion of residents who state as part of the interview that they currently wish to die (including those who had suicidal ideas) (row 6) is one item of the general depression scale that can be taken as an important subjective statement of current quality of life. The proportion of residents who state as part of the interview that they have recently contemplated suicide may be taken as an indicator of quality of life.

Forty per cent of the residents able to complete the depression scale of the BAS would be classed as cases of depression - a rate comparable to that found in most studies of the elderly in residential care in the United Kingdom. There was, however, a range between 21 per cent to 60 per cent. Under one fifth (17%) of these cases were currently recognised as depressed by their key worker and only 30 per cent were receiving anti-depressant medication. In only half of the prescriptions was the dose in the therapeutic range.



Table 2 Measures of depression in residents

1	NUMBER COMPLETING DEPRESSION INVENTORY	194/309 63%	RANGE 44%-83%
2	MEAN DEPRESSION SCORE	5.72	4.00-8.40
	STANDARD DEVIATION	3.88	2.69-5.37
3	NUMBER OF DEPRESSION CASES	77/194 40%	25%-60%
	CASES AS % OF INTERVIEWEES		
4	CASES IDENTIFIED BY KEY WORKER	13/77 17%	0%-66%
5	CASES RECEIVING ANTI-DEPRESSANTS	23/77 30%	0%-100%
6	NUMBER STATING THAT THEY 'WANT TO DIE'	59/194 30%	0%-53%

Numbers are too small to report on differences between homes in the rates of recognition and treatment. However, from the data presented in Tables 2 and 3 we can conclude that the high rate of depression and low recognition and treatment response reflects a continuing and worrying deficiency in care provision in our residential system.

The mean depression score illustrates the level of depressive complaint or perhaps general level of unhappiness, and it can be seen as a measure of quality of life in the home. The range in this study lay between 4.00 (standard deviation 4.33) and 8.40 (standard deviation 3.13) indicating differences in the current experience of the residents. Fifty-nine (30%) of the residents who were interviewed with the depression scale, reported that they wished to die; some of these with active suicidal thoughts. Over half of the residents in one home were in this situation (Table 2). The usefulness of these last two measures as a means of ranking homes for quality of life will be considered later in the analysis. In doing so, it is desirable to control for the levels of physical illness and for age as possible confounders.

### ***Medication***

As stated above, only 30 per cent of people with depression were receiving any form of anti-depressants. In some cases, these were not therapeutic dosages. Table 3 gives details of those pharmaceuticals taken by the people in our study which have particular relevance for elderly and infirm people.

Medication that is currently prescribed for the residents was recorded by the research nurses from the drug charts. The accompanying table shows the

proportion of residents prescribed certain categories of medication in each home and the mean number of medications per resident in that home. The categories chosen might usefully be regarded as reflecting a response to residents' difficulties by the home, some of these medication responses would be regarded as desirable and others undesirable. There is a considerable range between the homes.

*Table 3 Selected medications taken by people in the study*

	ALL HOMES	STANDARD DEVIATION	RANGE FOR HOMES
1 TOTAL MEAN NO. OF DRUGS PER RESIDENT	3.413	0.554	2.6-4.5
PER CENT TAKING:			
2 ANTI-DEPRESSANT AT A THERAPEUTIC DOSAGE	12%	10%	0%-29%
3 ANTI-DEPRESSANTS AT A NON-THERAPEUTIC DOSAGE	6%	7%	0%-21%
4 MINOR TRANQUILLISERS	5%	5%	0%-12%
5 MAJOR TRANQUILLISERS	19%	8%	5%-35%
6 HYPNOTICS	23%	10%	0%-35%
7 ANALGESICS	47%	14%	24%-75%
8 DIURETICS	35%	11%	12%-60%

### *Mean number of medications*

The average medication of any kind per resident might be expected to be approximately similar between the homes given the similarity in disability and dementia rates between the homes. However it can be seen from the table that there is a 50 per cent difference in means, between 2.6 drugs per resident and 4.5 drugs per resident. Interpretation of the differences is problematic; higher rates could mean precise responses to the multiple pathologies present in a resident, but could be regarded sometimes as polypharmacy, an excessive use of medication which brings dangers for the patient, as the medications can interact adversely with each other.

### *Anti-depressant medication*

Rows 2, and 3 show the proportion of depressed residents receiving anti-depressant medication in therapeutic doses, and the proportion receiving anti-depressant medication in sub-therapeutic doses. The range between homes is wide, 0-29 per cent for anti-depressants in therapeutic dose and 0-21 per cent

in sub-therapeutic doses. No anti-depressants were prescribed in one home, but 50 per cent of people in another home were receiving anti-depressants in some dosage (29 per cent therapeutically and 21 per cent sub-therapeutically).

### *Tranquillisers*

Rows 4, 5 and 6 show the use of minor tranquilisers by day (benzodiazepines usually) major tranquilisers (phenothiazine usually) by day or night and hypnotics (non phenothiazine type).

Minor tranquilisers will be prescribed to allay anxiety but also can be prescribed in cases of depression which present as agitation. This is not usually a therapeutic response. Such prescriptions may be used to counter psychological dependence.

Major tranquilisers are traditionally used to lessen the agitation or wandering associated with certain residents with dementia but can wrongly be used for treatment of depression. Phenothiazines have marked disadvantages for older people in causing neurological symptoms and in causing low blood pressure, which can lead to falls.

Hypnotics are commonly prescribed to elderly people in the community and one would expect to see the same in residential care. However, particularly high use in these circumstances might reflect high rates of insomnia associated with depression among residents. It might also reflect complaints of sleeplessness by residents (particularly if they were expected to spend 10 hours in bed when a normal sleep span might be 6 hours) or intolerance of care staff towards night-time disturbance.

The prescription of phenothiazines (major tranquilisers) for control of unwanted behaviour in dementia is occasionally necessary, but usually undesirable, given the damaging side-effects of this medication. The range for the homes was 5 - 28 per cent. Forty out of 177 (23%) of residents with dementia received phenothiazines. The range between the homes was considerable: Two homes had nobody or one person taking phenothiazines, but over 50 per cent of residents with dementia were taking them in three homes. This overall rate of 19 per cent is somewhat lower than the 24 per cent described recently in the British Medical Journal paper from nursing homes in Glasgow (McGrath and Jackson, 9 March 96). The use of phenothiazines as a response to depression, treating the anxiety or agitation rather than the depression itself, is even less desirable. Fortunately, only 6 out of 81 subjects with depression were being so treated.

Hypnotics were taken by a considerable range, between 0 and 38 per cent of residents. Over one third of residents were being prescribed a hypnotic in four of the homes. In contrast, it can be seen that minor tranquilisers were not so commonly used (range between homes 0-12%). As with minor tranquilisers, dependency on hypnotics may have been induced years before.

### *Analgesia and diuretics*

The use of analgesia is often necessary and desirable but individual medical practitioners and care staff will vary in their perception of a resident's need for this help. It is interesting therefore to note that there is a three-fold variation between proportion of residents currently prescribed an analgesic, from 24 per cent to 75 per cent (row 7).

Similarly, diuretics are necessary for the treatment of the fluid retention associated with cardiac conditions. They are sometimes also prescribed for reduction of fluid associated with immobility, particularly in the leg following prolonged sitting. Long-term use of diuretics under the latter circumstances is usually disadvantageous as there will be an alteration in the electrolyte balance which in turn can lead to other complications and can cause low blood pressure. It is interesting, therefore, to note again a wide variation between homes in the proportion of residents receiving a diuretic shown in row 8 (12% to 60%).

### ***Responses to health needs***

A good home should be able to detect the more obvious physical illnesses from which a resident suffers, and ensure that medical treatment is provided and implemented. In addition, the disabilities associated with a physical illness should be assessed and minimised by the provision of instrumental aids, or staff support as required. Staff should also be aware of distressing, but perhaps not specific symptoms, such as pain, insomnia and stiffness, from which residents suffer and should have appropriate strategies to help.

It was beyond the scope of the study to provide for a full medical examination and diagnosis of each resident to be sure that all conditions were being diagnosed and treated. Instead, we focussed on common and visible disabilities that were present amongst residents, and checked whether the key worker was aware of any disability, and knew how to respond. We also examined the care plan or other home-based documentation to see if the disability was recorded on this plan with an appropriate management strategy.

We hypothesised that a good home would know of residents' disabilities in that the key workers would respond appropriately, and that the care plans would contain relevant information. Less satisfactory (neutral) responses might be that there was some awareness of disability, but a key worker would not know how to respond, and/or there was no relevant information in the care plan. Less good homes would not be aware of their residents' disabilities, either through the key worker or as recorded in the care plan and, therefore, would provide no specific responses. The 'gold standard', against which the homes' responses to disability were compared in this study, was the research nurses' own independent assessment of each resident.

The Health Needs Inventory was prepared in consultation with a number of professionals who gave examples of good and bad responses to health needs. Four problems or disabilities where the research nurse could make her own independent objective assessment of disability: immobility, instability on standing or walking, hearing loss or vision loss, were used for this analysis. (We believe that the recognition of these four disabilities should be relatively straightforward for any care staff in their usual practice.) Responses to these problems were coded as poor, neutral or good. A poor response to instability might be to use a wheelchair constantly. A poor response to hearing or visual impairment would be to ignore the problem, or to neglect the maintenance and use of hearing aids and spectacles.

Other difficulties - wandering, incontinence, memory loss, pain, insomnia - were also assessed by the nurse. These were not included in the current analysis for, in reality, these disabilities could not be objectively assessed by

the nurses as, in the end, they depended either on self-report of the patient (many of whom were suffering from some degree of dementia) or report by the care staff (in which case, the comparison of the nurse's assessment and care staff's response would be meaningless).

### ***Results***

The responses the homes to the four types of disability are compared in Tables 4a and 4b. Each resident could have contributed up to four responses: one each for immobility, instability, vision loss and hearing loss - the total responses for that home being the sum of the responses of all the residents. Each response was scored as good, neutral or poor.

For this analysis, 'missing' data and situations when the nurses found no disability have been included in the neutral category. In our analysis we compare the homes in terms of the proportion of good responses (out of the total) and the proportion of poor responses (out of the total). It could be argued that a disability that is recognised and dealt with is a sign of good care in the home, and an easily detectable disability not known to the key worker nor dealt with, is a marker of deficient care. Thus, a response categorised as 'good', means that there is a disability and the key worker knows of it and responds appropriately. A 'poor' response means that a disability is known to the key worker but inappropriate or no specific help is offered, or that the key worker does not recognise the problem.

*Table 4a Percentages of health responses rated good, poor and neither good nor poor, including data from care plan*

TOTAL NO. RESPONSES 1118	COLUMN 1 NUMBER OF RESPONSE S	EXPRESSED AS % OF POSSIBLE RESPONSES STATED BY KEY WORKER AND CARE PLAN		
		COL. 2 GOOD RESPONSES	COL. 3 NEUTRAL RESPONSES	COL. 4 POOR RESPONSES
MEAN PER HOME	66	7%	66%	28%
STANDARD DEVIATION	17	5%	8%	10%
RANGE	30-87	0%-16%	46%-76%	10%-53%

*Table 4b Percentages of health responses rated good, poor and neither good nor poor, excluding data from care plan*

TOTAL NO. RESPONSES 1118	COLUMN 1 NUMBER OF RESPONSE S	EXPRESSED AS % OF POSSIBLE RESPONSES STATED BY KEY WORKER
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		COL. 2	COL. 3	COL. 4
		GOOD RESPONSES	NEUTRAL RESPONSES	POOR RESPONSES
MEAN PER HOME	66	18%	28%	54%
STANDARD DEVIATION	17	6%	14%	16%
RANGE	30-87	7%-30%	2%-55%	24%-90%

In the first analysis, to be classed as 'good', responses had to be evident in written records or care plans as well as in the mind of the key worker. Table 4a shows the number of responses that have been included in the analysis (total 1118). Only 7 per cent (74 out of 1118) met the criteria for good response, as set out above. These were considerably outweighed by the 28 per cent (314 out of 1118) in which the nurses could detect disability which was neither recognised by the key worker nor mentioned in the care plan. (66% - 730 out of 1118 - were allocated to the extended neutral category). In all homes but one, poor responses outweighed good responses.

The absence or inadequacy of a current care plan (see Chapter 3) was a major reason for the large number of responses being classified in the neutral category. The research nurses could not rate the response to a specific disability as shown by a care plan if nothing at all was recorded. The analysis, therefore, has been repeated omitting the care plan, and the results are shown in Table 4b.

Eighteen per cent (200 out of 1118) are now classified as good responses, but these are still outweighed by 54 per cent (608 out of 1118) of poor responses. It can be seen, comparing the four types of disability, that the numbers of good responses in the first rating system involving the care plan remained low. However, the proportion increased from 12 to 32 per cent when only the key workers' knowledge and response was considered, again reflecting the deficiency of the care plans.

Table 5 considers the whole study sample to show which of the four disabilities were most likely to be recognised and dealt with and which not. The second column in the table shows the number of times the nurses found a disability out of the total number of responses (630 out of 1118). Of the four disabilities, the response to vision loss seems to be the least adequate compared to the other three. This could be either through failure to use current glasses or failure to keep the prescription up to date. It could of course be argued that residents themselves sometimes choose to neglect their need for new glasses. Spectacles, like hearing aids, introduce disincentives of cost, unlike mobility aids, which are normally supplied free of charge by the local authority occupational therapy department.

Table 5 *Disabilities identified by nurses in study sample*

DISABILITY	NO. OF PEOPLE INTERVIEWED	DISABILITY PRESENT	GOOD RESPONSE		POOR RESPONSE	
			N	%	N	%
			EXCLUDING CARE PLAN			
IMMOBILITY	286	206	75	36%	112	54%
INSTABILITY	278	188	58	31%	111	59%
HEARING LOSS	291	115	42	37%	68	55%
VISION LOSS	263	121	25	21%	74	61%
TOTAL		630	200	32%	360	58%

### 3. Policy, administration and documentation in homes

Written policies, set procedures and documentation are relatively straightforward aspects of residential care to evaluate objectively. In this study, managers' interviews provided one source of information about administrative perspectives of life in the home. Staff responding to the Sheltered Care Environmental Scale (SCES) gave us another viewpoint on organisation in the home, and the researchers' own analysis of the care plans kept by each home provided a measure of the rigour with which procedures are followed. Here we look briefly at four measures taken from two questionnaires, and then go on to examine in some detail our findings from the care plan analysis.

#### *Four aspects of policy and procedures*

Various facets of policy and procedures were measured in this study. Among these were the Policy and Programme Information Form (POLIF) scales 'provision for privacy' 'policy clarity' and 'policy choice', and a sub-scale from the SCES called 'organisation'. The scores on these four sub-scales are presented in Table 6 as percentages.

Organisation reflects "how important order and organisation are in the facility, the extent to which residents know what to expect in their daily routine, and the clarity of rules and procedures" (Moos & Lemke, 1992, p.3).

Policy choice relates to the services and activities available in the homes, especially the extent to which residents have the opportunity to select individual patterns of daily living. It includes questions such as "Are residents allowed to drink a glass of wine or beer at meals?".

Provision for privacy includes questions about how many residents have individual rooms, doors and cupboards which lock. Policy clarity concerns the level of formalisation of the homes rules and procedures, asking questions such as "Is there a handbook for residents?" and "Is there a newsletter?".

#### *Discussion*

One might expect homes which score highly on organisation also to do so on policy clarity, but this is not always the case. Moreover, any association between high levels of organisation and quality of care remains to be demonstrated. The differences between homes found in terms of 'organisation' and 'policy clarity' were reflected in the scores on the completeness of care plans, as shown below. Low scores on these two policy dimensions also predicted low scores on care plan adequacy.



*Table 6 Percentage scores on four dimensions of organisation and policy*

	ORGANISATION MAX. SCORE 9	POLICY CHOICE MAX. SCORE 16	PROVISION FOR PRIVACY MAX. SCORE 9	POLICY CLARITY MAX. SCORE 8
MEAN	56%	90%	72%	55%
STANDARD DEVIATION	14%	8%	9%	14%
RANGE	29%-77%	75%-100%	67%-100%	25%-88%

### ***Care plans***

Schedule 2 (4) of the Regulations of the Registered Homes Act 1984 specifies that a home is required to keep a record for each resident which shall include details of any special needs, any medical treatment, including medicines administered, and 'any other information in relation to him as may be appropriate including details of any periodic review of his welfare, health, conduct and progress'. Although the regulation does not specifically use the word 'care plan' this is what it amounts to.

The NHS and Community Care Act 1990 introduced care management, a method by which services are arranged delivered so as to meeting users' and carers' needs. A written care plan for users of services, including residential services, is recommended practice in care management, as is the principle of partnership in caring, with the involvement of users and carers. Thus, commencing this study eighteen months after the implementation of the Act, we expected to find some variation in interpretation and achievement of the care planning, and this was indeed demonstrated in the pilot homes. This variation presented a challenge to the collection of comparable data about care plans in different homes.

### ***Data collection***

On entering a study home, it was established whether or not there was such a document as a 'care plan'. It was important that relevant information was not discounted just because it was not recorded under this heading. If other documents were consulted, the manager was asked for blank copies of these forms. These included 'assessment forms' - and food/drink intake monitoring sheets.

We decided to look at four areas of care: physical care, emotional care, social interaction, and religious and cultural considerations, and each category was assessed in two ways. Firstly, we calculated the number of weeks since the last review. Secondly, each category was rated on a scale from 1 to 3, where 1 indicated no relevant documentation and 3 indicated that areas requiring attention had been identified, a plan of action formulated and this action had been evaluated. Also a care plan rated 3 showed signs of regular review and

that the resident had participated in the process, with the information contained therein being clear and easily accessible.

One home had updated all their care plans two weeks before our visit with the comment 'care needs remain the same' but there were often gaps and a paucity of detailed recording under previous headings. So, although this home scored the lowest number of weeks since care plan information was updated, the quality was not high.

### *Physical care*

There was wide variation in the design and content of this section. For the majority of care plans this was the most detailed and often the only aspect of care which was documented. Even for this aspect, homes studied showed great variation in depth and breadth of care plans.

In an ideal care plan there should be sections for aspects of physical care and details of medication times and dosage, such as whether the resident was self medicating or whether the resident was agreeable to night staff checking them every hour at night. The best care plans were clear, detailed, reviewed regularly and provided some room for resident input perhaps in the form of a resident checklist, for example: Have you difficulty eating and digesting food? Do you wear dentures?.

Several homes had copies of Barthel (Mahoney and Barthel, 1965) and Clifton Assessment Procedures for the Elderly (Pattie & Gilleard, 1979) assessments as part of the care plan documentation. One home, which was divided into self-contained flats, provided a 'kitchen assessment form' with questions about ability to stand whilst cooking. Another home managed to include a detailed record in chart form on one side of a card index which included details such as the morning waking time and going to bed preferences. It comprised strategies to allow as much resident autonomy as possible.

### *Emotional care*

Factors associated with emotional care such as mental state, mood and anniversaries of distressing life events were generally poorly documented and received less attention overall than physical care. Where attention was given to mood or behaviour, there was seldom any recording of the possible reason for the behaviour, strategies to ameliorate it or the resident's preferred wishes.

### *Social contacts and activities*

We were looking for an outline of what the residents did, both inside and outside of the home: details of any interests that the residents had before coming into the home and whether it had been made possible for them to continue; whether they visited any clubs or day centres; if they had any friends or family who visited; and what sort of relationships the resident had formed within the home, both with the other residents and with the staff. On the whole the information recorded about social care was not detailed. We did find information on residents who liked to help out with domestic chores, and often a number of these residents had some level of dementia, but generally

the activities that we did see taking place in the home were not recorded in the care plans.

*Religious and cultural care plan*

On the whole, this category was characterised by sparseness of information and of our four categories on the Care Plan Assessment form this category was given the lowest scores and had the greatest number of weeks since review.

We were looking for signs that the home had made an effort to gain a picture of the residents' background, for example, the area and culture in which they had lived most of their lives, and their occupation. Few of the care plans gave any opportunity to record this information. Documents that were designed to incorporate these details were rarely adequately completed. It was often the case that the only information recorded was the name of the religion, if any, that the resident followed. This was occasionally accompanied with funeral and burial arrangements, whether the resident attended any religious services or was visited by any religious leader in the home. In five of the homes in the study the majority of residents had no mention of religion or culture in their care plans.

There was only one home that stood out in this category, and this was a home for Asian elders. The emphasis placed on religious and cultural individualisation of care plans in this home, however, was not reflected in the other home for Asian elders included in the study.

*Table 7 Quality of care plans which had been reviewed in past 6 months*

	PERCENTAGE OF PLANS IN THE HOME RATED GOOD AND UPDATED ON EACH DIMENSION			
	PHYSICAL	EMOTIONAL	SOCIAL	CULTURAL
MEAN	28%	16%	23%	16%
MAXIMUM %	96%	91%	100%	100%
MINIMUM %	0%	0%	0%	0%

Table 7 shows the proportion of care plans, under each category, which were both 'adequate or good' and updated within the last 6 months (26 weeks). There is wide variation, in fact two homes showed outstanding scores, with a third demonstrating a deficit in the religious and cultural aspects of its care plans, but otherwise scoring well. The great disparity shown in this table is due to its rigorous criteria for inclusion: the care plans must be rated 'good' and reviewed within the past six months.

*Discussion*

In addition to the wide variation in quality of care plans shown in Table 7, the means on all four dimensions are low, suggesting that high standards of documentation are relatively rare. The instrument used to evaluate the care

plans was tailor made for this study, and has not been tested elsewhere, so its reliability may be questioned.

One difficulty in evaluating documentation is to test any relationship with practice or attitudes in the home. Residential care is not a paper exercise, and the possibility always remains that excellent documentation is not reflected in excellent care, or that paperwork takes priority over residents' needs. It was clear to the researchers that some homes managed to balance the time spent administering procedures such as care planning and time they spent with the residents, while in other homes the paperwork was often completed at the expense of hands-on care. The researchers felt that in a number of homes the care witnessed was not reflected in the notes kept by the home, either due to good practice not being documented, or to inferior practice despite good paperwork.

## 4. Occupation and the physical environment in homes

The values set out in Homes are for Living In (privacy, dignity, independence, choice, rights and fulfilment) are fundamental to good residential care practice for elderly people and to the quality of life of those who receive the service. Fulfilment is defined as 'the realisation of personal aspirations and abilities in all aspects of daily life' (SSI, 1989). It is recognised that elderly people in residential care benefit from support and stimulation to help them maximise their potential physical, intellectual, emotional and social capacity (Wagner, 1988). Home Life (Avebury, 1984), makes two recommendations which refer to residents' interests and social activities:

Residents should be encouraged to pursue existing interests and  
acquire new ones, and

Residents' mobility should be maintained by encouraging walks,  
outside visits and social activity.

Occupation in homes can include reading, listening to music, taking a walk, individual hobbies, games, creative and practical crafts, exercise sessions, group discussions, celebrations and religious festivals, entertainment and outings. Our study sought to gather information from a range of sources, using a number of objective and subjective measures, in order to ascertain how occupation or activities might impinge on or enrich the quality of life for the residents.

Details were gathered on the activities provided for the permanent residents from two questionnaires administered to the managers. These provided measures of the range and type of occupation provided or co-ordinated by the staff, or undertaken individually by the resident. Another source of information was the SCES (administered as a self-completion postal questionnaire for staff) which included five questions about occupation in the home (Moos & Lemke, 1984), and in addition there were some comments made by staff about activities. One of the questionnaires administered to the residents asked how they spend their day. This provided a subjective measure of assessment of residents' experiences. In response to the questionnaire for relatives and friends, a number of people mentioned more activities amongst the changes they would like to see in the home.

Here, different perspectives on the homes' social and physical environment are discussed, from the points of view of managers, staff, residents and visitors. We present information from a number of perspectives about occupation in homes, and then go on to look at other aspects of the homes' environment, measured by our instruments.

### *Views of managers*

An 'activity encouragement scale' (AES) was derived from several sections in the Manager's Questionnaire, which was prepared for this study, and based on

Evaluating the Quality of Care: A self-assessment manual (Payne et al., 1994). The questions on the AES asked whether residents did any gardening or had their own plots, whether there were: laundry facilities for residents' use; a hobbies room; materials and resources for crafts and entertainment; newspaper deliveries; a mobile library; and pets. The managers were asked whether they were satisfied with wheelchair access and whether there was space to use frames and other mobility aids in the home. Another question enquired about the proximity of pub(s), health centre, bus stop, post office, bank/building society and places of worship.

Managers were asked whether there were any major physical barriers to prevent residents from having access to community facilities, whether there was an organised activity programme, whether it was the responsibility of a particular staff member to organise the activity programme, whether the residents were currently involved in planning and organising any activity, and whether there was a budget for hobbies. The questionnaire also asked whether certain types of occupation were available: a reminiscence or recall programme; life story work; creative or artistic activities; practical crafts such as needlework and woodwork; large print books or other reading facilities for people with sensory impairments; and 'new technology'. The results for the AES are shown in table 9, where the results are shown as percentages of the total possible score.

*Table 8 Activity Encouragement and Availability of Social and Recreational Activities Scales*

	SCES INDEPENDENCE SCALE MAX. = 9	ACTIVITY ENCOURAGEMENT SCALE MAX. = 10  (MANAGER'S QUESTIONNAIRE)	AVAILABILITY OF SOCIAL AND RECREATIONAL ACTIVITIES  MAX. = 26 (POLIF)
MEAN	3.04    34%	6.6    66%	10.3    40%
STANDARD DEVIATION	1.90    21%	1.3    13%	4.95    19%
RANGE	0.86-4.67	3-9	2-20

The AES, as applied above, is a measure of the manager's view of how much the home's regime and environment encourage residents to maximise their physical, emotional and intellectual potential. Another scale also administered to the manager, from the Policy and Programme Information Form (POLIF), was intended to measure the extent or availability of the activity programme in the home. Managers were asked whether certain activities took place in the home and, if so, how often. Those listed were: exercises or other physical fitness activity, outside entertainment, discussion group, reality orientation group, self-help or mutual support group, films, club, social group, drama or singing groups, classes or lectures, bingo, cards or other games, parties, religious services, a social, coffee or cocktail hour and arts and crafts. The highest scores were given if an activity took place once a week or more and intermediate scores if once or twice a month. Activities which took place only

rarely or a few times a year were given the lower scores. Table 8 gives details of the scores for each home for the availability of social and recreational activities. The independence scale from the SCES (staff viewpoint) is also included in Table 8.

The tendency of some residents to spend much of their day in their rooms was a feature of several homes, particularly the smaller ones. In some homes the majority of residents would pursue their own interests of listening to the radio or talking tapes, doing knitting, embroidery or tapestry, crosswords and reading.

The POLIF scale produced greater variability between homes, but the AES appears more likely to give a high score to homes with an ethos of encouraging individual occupation rather than structured activities. It is possible that this approach is more appropriate in British homes, and that further analysis and developmental work on the AES would be productive. In addition, more observational research, and less reliance on the manager's opinions, would be required to discover more about activities.

### ***Views of staff***

The Sheltered Care Environment Scale (SCES), containing 63 yes/no answers, was one of the anonymous self-completion questionnaires for staff. Five of the questions asked about activities in the home and could therefore be held to represent the staff viewpoint. Table 9 gives details of the number of 'yes' answers expressed as a percentage of all responses to the five questions from each home.

The scores for question A can be taken to indicate to what extent staff believe that they are responsible for arranging activities for the residents, but this may be influenced by residents' capabilities. Whilst the vast majority of staff consider that activities depend on themselves, some staff members may feel that it is appropriate to encourage the more active residents to arrange activities for themselves.

These results have provided some additional information on the homes, from the viewpoint of the staff who work in them, and have provided a comparison with the views of the managers.

*Table 9 SCES: Percentage of positive responses of staff to five questions about activities*

- A Do residents usually depend on the staff to set up activities for them?
- B Are activities for residents carefully planned?
- C Are there a lot of social activities?
- D Do residents sometimes take charge of activities?
- E Are some of the residents' activities really challenging?

	% 'YES' ANSWERS				
N	A	B	C	D	E
265					
MEAN	95%	75%	46%	34%	19%
STANDARD DEVIATION	6%	23%	26%	21%	12%
RANGE	84%-100%	0%-100%	0%-80%	6%-88%	0%-43%

### ***Qualitative data from staff***

Of the respondents to the staff questionnaires, several commented about activities. In response to whether residents usually depend on the staff to set up activities for them, one staff member replied:

I feel more activities could be organised for residents that are able to take part. Just to break up the day to day sitting about.

Clearly, perceptions may be limited by people's limited experience of activities in homes. Another made the comment:

I definitely think that if we had more time to give to residents, and talk to them, it would be better. Also an occupational therapist would not be amiss, so many residents just sit all day, some in their own rooms on their own, say they are lonely, but will not mix, but that is their choice.

From the same home another staff member responded with the suggestion that:

It would be great in an ideal world to have more staff to spend time with; maybe an activities officer.

This particular home was one which scored in the middle range on both the activity scales measured in the manager's questionnaires but where the manager had made the point (unprompted) to the researcher, that, were she to be given an increase in staffing levels, she would like to appoint "a red-coat type person" to have sole responsibility for organising activities for the permanent residents.



A number of staff from a range of homes wished that they could have the time to spare from the personal and physical care tasks to be able to give more attention to the social and emotional needs of their residents.

On the whole I think our home is a good one but like so many things there's a lot that could improve it. The residents do not get the attention I feel that is needed because there just isn't the time. Staffing levels are at a minimum having one carer for ten residents. There's very little time to actually spend communicating with them. Some really spend most of the day just sitting there not speaking to anyone., and;

Whilst a shortage of staff is normal for the local authority homes, more staff are needed to provide extra activities which are lacking at present

The Department of Health's document on good practice standards in residential care for elderly people, Homes are for Living In recommended that: "Facilities for day care or other activities not directly related to care of residents, should be organised and located so as not to interfere with the lifestyle of residents" (SSI, 1989, p19). In a number of homes, day care was being provided within the same premises. Sometimes this took place in another part of the building but in some homes the day care unit was located within the main living area. In these instances the arrival and departure of the day attendees was observed by the permanent residents. These day care units invariably had a member of staff with responsibility for organising activities but there was seldom attendance at the day care programme by the permanent residents. The reason given for this was shortage of space. In one home there was a combined short stay and permanent stay unit, and an activities organiser was employed in this unit so the five permanent residents had a regular programme of activities. In this home, the manager wanted an increase in staffing levels to employ another member of staff to organise activities for the permanent residents.

### *Views of residents*

Residents' views on what it was like to live in the home were gathered by structured interview. Table 10 gives details of how residents reported spending their time between meals. The category 'other' included replies such as "interested in politics" and "smoke my pipe in the downstairs lounge and observe the passers by". The categories of activity are not exclusive, and it was evident that some residents do a variety of things, both active and passive. Moreover, there was not a straightforward association between the scores shown in Table 8 and the levels of activity shown in Table 10.

We can compare the leisure activity levels of people in residential homes to the general population aged over 70 and living in private households using data from the General Household Survey 1993 (Foster et al., 1993, Table 8.4). This tells us that 97 per cent watched television and 80 per cent listened to radio in the 4 weeks before interview, as compared to a mean of 45 per cent who 'watched television or listened to music' in the homes studied. Ninety-three per cent of the general population aged over 70 visited or entertained friends or relations, as compared to 25 per cent in our study, despite the proximity of people with whom to socialise. In the general population, 64 per cent read books, as compared to 29 per cent in the study; 24 per cent did

knitting or needlework in the general population, as compared to 14 per cent in our study. Disability levels may explain some of the differences, but it is clear that in objective terms, as well as in the minds of carers and relatives, people in residential homes undertake few leisure activities. The fact of their living in a home may preclude many of the principal activities of people outside: walking, gardening, DIY, cooking and housework. Yet it is widely recognised that participation in ordinary activities is conducive to physical and psychological health. Making participation possible is a challenge for residential

*Table 10 What residents do between meals - responses from resident interviews*

ACTIVITY	MEAN % PER HOME NAMING THIS ACTIVITY	STANDARD DEVIATION	RANGE
SLEEP REST THINK SIT	36%	25%	4%-88%
WATCH TV/LISTEN TO MUSIC	45%	21%	17%-80%
WALK/EXERCISE	14%	22%	0%-38%
SOCIALISING	25%	16%	0%-57%
SEW, KNIT, HOBBIES	14%	10%	0%-35%
DOMESTIC TASKS	9%	10%	11%-71%
READ	29%	16%	11%-52%
RELIGIOUS ACTIVITIES	7%	11%	0%-38%
OTHER	16%	9%	0%-30%

### *Views of visitors*

The questionnaire for relatives and friends provides another subjective measure of the quality of life in the home. Many of the 228 visitors who responded to the postal questionnaire were calling to see their relative at least once a week (44%). The respondents therefore had a good insight into the home. The most frequent complaints concerned the physical state of the building, then came lack of activities, with 7 per cent of respondents mentioning this. The visitors also commented that there were:

Not enough activities to keep residents interested or motivated, and Lack of basic activities probably due to being understaffed.

They also commented that:

An occasional short outing would be appreciated (I am a non driver and am unable to push a wheelchair).

I think they could do things with the elderly to entertain them or even bingo. Also a mini-bus would be appreciated.

In response to the question about whether they would like to see any changes in the home or in the care given to their relative, "more activities in the home" was the most frequently given response (17%), followed by staffing issues (16%). In third place was "more outings and trips" (6%). Responses included the following:

The residents could do with more stimulation, with exercises/chair aerobics, plus a little entertainment'.

More attention to basic needs such as crafts, interests of residents i.e. cards, bingo, sewing and basic interests in general. Residents left for too long a period of time. Most sleep through lack of activity.

The researchers found that some homes had arranged for the 'Pat-a-Dog' scheme to call once a month. This scheme enables dog owners to bring their pets to visit the home. Several homes had Women's Royal Voluntary Service visitors who provided free manicures for those residents who wished. However, generally these activities were not incorporated into either a publicised programme of activities or an individual tailor-made activity programme for the resident. It seems unlikely therefore that the residents had any control over the timing of activities, such as visits by volunteers.

### ***Conclusions***

Different perspectives on the activities in the homes were gathered from managers, staff, residents and visitors. From the manager's point of view, several homes scored highly on the scale which measured encouragement of individual and small group activities whilst other homes with different characteristics scored highly on the scale which measured provision of an organised programme of activities. The staff viewpoint in many ways confirms that of the managers. Staff from a number of homes commented that they wished they could spare more time from the personal and physical care tasks to devote to the social and emotional needs of the residents.

Qualitative data from the residents largely confirmed what the managers and staff measures had shown. Many residents spent their day sitting in a chair. Very few homes appeared to encourage physical activity or exercise, and residents seemed to pursue hobbies or socialise within the confines of their own room. Visitors, many of them visiting at least twice a week, commented on the lack of meaningful activity by the residents. The provision of more activities was one of the most frequently mentioned suggestions for change, a finding familiar to those reading successive studies of residential care over the years since 1963, when Peter Townsend published *The Last Refuge*.

Many people recognised that staffing levels would need to improve in order to provide more activities. The presence of a staff member with responsibility for organising activities may be a necessary step in this process, but flexibility in staffing and training are also required, since the way in which staff spend their time is crucial and more staff will not necessarily lead to more activities.

Only one home in our study had an activities organiser. In a following section we look in greater detail at staffing issues.

### *Physical environment*

Having examined in some detail one aspect of the home's environment, the availability and variety of activities, we turn here to the home's material environment. The term 'quality' in relation to residential care may evoke for some people images of pristine furnishings comparable with a good hotel. For others, the comfort of a well-used sitting room is associated with 'quality'. The physical environment is a key consideration in choosing a residential home. Indeed, comfort, cleanliness and atmosphere were amongst the criteria for selecting the home most frequently mentioned by the relatives in this study, only exceeded by 'convenient for visitors'.

It is not only furnishing and decoration which affect perceptions of the physical environment, but air (including odours), light and sound are also salient. The needs of people living in residential care place some constraints on the nature of the physical environment: mobility problems, and protection for people who might wander, can influence the size of corridors and rooms, and the general lay-out of purpose-built homes. Coping with incontinence may mean that communal chairs and carpets are more utilitarian than residents might choose, although this is not without exception. Incontinence can also add to the risk of unpleasant odours generated by a large number of people living and eating under the same roof. Congregate living may generate noise at an unacceptable level, through televisions at high volume, cleaning machinery and conversations with people who are hard of hearing. Lighting for large areas may be difficult to moderate, and homes may resort to levels of lighting associated with non-domestic settings, such as ubiquitous fluorescent tubes.

Many aspects of the physical environment are set as minimum standards by registration bodies for residential care: access for people with mobility problems, adequate personal space, preferably in single rooms, adequate bathroom and toilet facilities, the provision of sitting rooms or lounges, and a dining room which is separate from the main living area are standards which ought to be enforced by the registration and inspection agency. Our research assumed that many of these conditions were fulfilled, although there was some overlap between the questions posed in our interviews and those which inspectors might ask.

One of the aims of this study was to explore how such environmental factors as decor, air, light and sound are related to quality of residential care. The relationship between physical comfort and quality of care can be explored in relation to our data from several parts of the Multiphasic Environmental Assessment Procedure (MEAP; Moos and Lemke, 1984). The Rating Scale V (RSV) from the MEAP was completed by the two researchers together at the end of their time interviewing in the home. It asks specifically about light, noise and odours in different parts of the home. One of its subscales, called 'physical attractiveness', relates directly to the physical environment. Another, 'environmental diversity', measures the level of personalisation of environments, on the assumption the greater personalisation indicates greater

individual treatment of residents. The Sheltered Care Environmental Scale (SCES) includes a subscale called 'physical environment'. This was completed anonymously by staff and can serve as a reliability test for the researchers' judgements of physical attractiveness. In Table 11 the scores on these two MEAP sub-scales have been converted to percentages to facilitate comparisons.

*Table 11 Scales associated with physical environment: percentage scores by home<sup>1</sup>*

	A PHYSICAL ATTRAC- TIVENESS (RSV)	B PHYSICAL COMFORT (SCES)	C QUALITY OF PHYSICAL ENVIRONMENT (MANAGER'S QUESTIONNAIRE)	D ENVIRONMENTA L DIVERSITY (RSV)
MEAN	66%	74%	69%	63%
STANDARD DEVIATION	15%	9%	11%	12%
RANGE	39%-86%	52%-85%	50%-90%	33%-83%

<sup>1</sup>Note that B was rated by staff, A and E by the researchers, while the manager's viewpoint is reflected in C.

In addition to these scales from the MEAP, selected questions from the Manager's Questionnaire may be used as indicators of the physical environment. These have been combined for our purposes into a subscale called 'quality of physical environment', with a maximum score of 10, and calculated as a percentage like the other scales in Table 11. Some other scales which might have been included in this analysis of the physical environment showed little variation when tested on the homes in this study.

### ***Findings***

Three homes scored consistently above average on the four scales: It is interesting to note that two similar scales, A (physical attractiveness) and B (physical comfort) differed considerably in their measures for two other homes. In both cases, the researchers judged the home's attractiveness more harshly than the staff judged the home's comfort. Of course, attractiveness and comfort need not go hand in hand, but there is also the possibility that staff have limited experience of other homes so cannot reliably rate the home in which they work on these dimensions.

## Chapter 5: Staffing

Personal care, domestic support and nutrition are the principal services provided by residential homes to their residents, and since these are supplied directly by care staff it may be expected that variations in some aspects of staffing will affect the quality of residential care. Indeed, it is difficult to place too great an emphasis on the importance of staffing issues for quality in residential care. Staff carry with them the ethos of the organisation, they interpret the rules and regulations, and they also engage their own personalities in dealing with residents.

### *Sources of data*

The study looked at organisational aspects of staffing, including training, support and supervision. Most of this information came from interviews with managers, although staff themselves commented on supervision and support, amongst other issues, in response to a self-completion questionnaire. Other data were collected prior to the study, concerning staff profiles in terms of age, relevant formal qualifications, and length of time in the job. In addition, the researchers studied the rotas, and sickness rates in each home. Some staff completed the General Health Questionnaire (GHQ), a measure of minor psychiatric illness, such as depression and anxiety. Staff-resident interaction was measured by observation using the Quality of Interaction Schedule (QUIS; Dean, 1993), and, finally, relatives and residents had opportunities through semi-structured questionnaires to comment on their views of home staff.

The staff questionnaire comprised three sections: the Sheltered Care Environmental Scale (SCES, Moos and Lemke, 1984), pertaining to the social climate in the home, the General Health Questionnaire (GHQ, Goldberg & Williams, 1988), intended to indicate depression amongst staff, and supplementary questions about training, support and seeking any other comments.

Questionnaires were distributed to all staff (managerial, care, domestic and others) in the 17 homes. Confidentiality was stressed, and stamped envelopes addressed to the research base were distributed with the questionnaires. Responses were received from 224 people (50%), who therefore constituted a self-selected sample, ranging from 21 per cent to 68 per cent in individual homes. This is a respectable response rate for a voluntary postal survey, but it does introduce considerable error into estimates of the level of 'caseness' on the GHQ. Nevertheless the response rate is adequate for our interpretation of the SCES, which is robust regarding inter-rater reliability (Moos and Lemke, 1984). In interpreting the comments below, therefore, it is helpful to bear in mind that this is a self-selected group of staff. The following comments are not broken down by home but presented here as an overview of care workers in homes for elderly people.

The viewpoints of staff themselves, gleaned from these supplementary questions, preface this section, in order to place in context the data from other sources, which follow. The qualitative findings are also compared briefly to a recent national survey of residential staff.

### *Staff comments*

'Any other comments' by staff were sought at the end of the two questionnaires which they were invited to complete anonymously and return direct to the researchers. Many comments made by staff qualified their responses to the SCES which only allowed yes/no answers. This caused some dissatisfaction from the would-be respondents, many of whom stated that they would have preferred a middle category of response between 'yes' and 'no', or that certain questions were applicable to some parts of the home and not others. At worst, the SCES was criticised for having "tendentious and leading" questions.

Apart from comments which were directly related to support, training was mentioned by six people. Other issues which staff raised were principally related to the stress which they experienced, and sometimes this stress was also related to training:

Some of our residents should be in nursing homes, the staff here are not trained to look after bedridden people.

I feel it very unfair to place mentally ill people in care ... we are not trained to look after them and I feel that they often need specialised nursing care. The dreadful aggression is something we are not trained to deal with and often other residents are very scared.

For many years it has been clear that elderly people in residential homes often require high levels of support, yet the administrative distinction between nursing homes, registered and inspected by the health authority and residential care, registered and inspected by the local authority remains. It is clear from these comments that staff feel that some residents are inappropriately placed. This raises two questions about staff expectations of the job and the training provided. First, are applicants for jobs in residential homes being given a clear picture of the work entailed? Second, are they being given sufficient training to enable them to cope with the demands of the job?

Staff shortage was the issue most frequently mentioned (by 16 respondents). Shortage of staff was seen to lead to respondents not being available to residents (12 mentions), to comments that "there just isn't the time" either to give individual attention or to organise activities, and lack of time was sometimes associated with unsatisfactory standards of care.

Staffing needs were also seen to be related to the pressures placed on homes by a high proportion of residents with dementia. Coping with dementia, together with the increase in nursing care demanded by frail residents, was seen as difficult because it "can be so mentally wearing as well as physical[ly]".

Admission policies, and in some cases crisis admissions, together with changing organisational structures, were noted by a few people to be sources of pressure in homes.

Anxieties about pay, financial resources, insecure jobs and lack of materials were clearly related to the problems caused by staff shortages:

All anyone wants to do today is make cuts and it's the residents that suffer.

The biggest problem we come up against is lack of money and resources to improve the services we provide.

The phenomenon of unplanned job expansion was felt, both by domestic staff required to fulfil care duties and by care staff compelled to do housekeeping. One respondent (presumably a manager) felt that the job was "constantly evolving" and staff had to "adapt to change" as well as possible. Several people stated that staff were undervalued, given "responsibility without recognition":

I feel as I am only a domestic, we tend to get put on, we are often asked to help with care, and are fed up being asked to come in early and make beds.

A few mentioned specific changes in conditions of work, such as unpaid breaks or no breaks at all:

Taking away the carers' ten minute break in our stressful job is unjust.

It was interesting to note that several people mentioned problems of communication within the home, about recording events, about handing over formally between shifts to ensure that the staff on duty were fully aware of what had gone on during the previous shift, and about conveying relevant information to all members of staff, for example:

When coming on duty midday it would be nice to be told about residents in bed, short stay residents and also if anyone has had to have the doctor.

Whilst it might not be necessary for procedures in residential homes to have the rigour of hospital routines, communication on important matters needs to be maintained.

Some positive comments were made:

I feel residential care has changed greatly during the 8 years I have been working in this area: people in care have more choice, rights are respected and staff are trained to a higher degree.

In a national survey of all types of residential care work covering 538 staff, and followed up by 35 in depth interviews with a sample of respondents, Penna et al. (1995) highlighted the following pressure points and dissatisfactions:

- frequent and routine verbal and physical abuse,
- unpaid overtime and fund-raising,
- staff shortages, demoralisation and feeling under pressure,
- the negative impact on clients of lack of resources,



- residential staff perceive local authorities to be altering conditions of service in order to save money,
- uncertainty and insecurity exacerbated by presence of more dependent residents.

Even though verbal and physical abuse were only alluded to in our responses ("some of the residents can be very rude"; "residents fighting has happened in the past") all of the above themes are reflected in the findings from the staff of homes in this study.

### *Exploring the data: staffing levels*

The impact of staffing levels on quality of care was clearly important in the minds of the staff who responded to our survey.<sup>1</sup> Some noted, however, that ideally these levels should be a function of the needs of residents, and that training may also affect the level of staff cover required in a home. The interaction between dependency and staffing levels is therefore relevant to understanding the quality of care in a home and should in theory be included in our overall analysis.

Staff-to-resident ratios were calculated by obtaining from the staffing rotas the whole time equivalent (WTE) staffing levels at four times of the week: weekday days, weekday nights, weekend days and weekend nights, in four categories of staff: manager, care staff, domestic and other. In each of these categories a total weekly WTE staffing level was calculated, and divided by the number of actual residents in the homes to obtain a ratio. Sickness and absence were recorded for each member of staff, and the total for the home in WTE was subtracted from the staffing complement to obtain actual staffing levels.

There were some difficulties in calculating the whole time equivalent staff on duty at any time. In many homes the shifts were made up of a number of people, predominantly women, who worked part-time, sometimes only a few hours every week or during student holidays. This led to some complicated calculations in order to achieve a figure for staffing levels. Where there were semi-autonomous units for group living, and where there were three or four shifts comprising the "daytime" shift the measure of staffing levels is not very reliable.

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all residents in each home had similar levels of dependency to those included in our study.

This is reasonable because a high proportion of residents were interviewed in most homes, ranging from 53% to 100%, averaging 76% overall.

Table 12 Staff - resident ratios, official and allowing for absences (n staff/ n residents).

	OFFICIAL RATIO			
	MANAGER	CARER	DOMESTIC	OTHER
MEAN	0.07	0.15	0.09	0.05
STANDARD DEVIATION	0.032	0.051	0.047	0.015
RANGE	0.03-0.16	0.05-0.25	0.00-0.17	0.03-0.08

	ADJUSTED RATIO			
	MANAGER	CARER	DOMESTIC	OTHER
MEAN	0.07	0.13	0.08	0.04
STANDARD DEVIATION	0.023	0.048	0.045	0.017
RANGE	0.03-0.12	0.04-0.24	0.00-0.17	0.02-0.08

Table 12 shows the ratio of different combinations of staff to residents in the homes. Actual staff ratios and official staff ratios vary due to sickness, and the difference between them varies between homes. Thus on average there was a care worker to resident ratio of 0.15, but allowing for absence there was an actual ration of 0.13.

In some homes, up to 25 per cent of managerial time and up to 29 per cent of care assistant time were lost due to sickness (Table 13). The differences between homes are worth noting, since in some homes no group of staff (managers, care assistants, domestic or others) had a sickness rate greater than 2 per cent. The overall impact of sickness was to reduce the staff:resident ratios in practice, as shown in the 'adjusted' columns of Table 12. Note that if one domestic on long-term sick leave is excluded, the maximum of 65 percent is reduced to 22 per cent.

Table 13 Proportion of staff time lost through sickness

	MANAGER	CARE WORKER	DOMESTIC	OTHER
MEAN	8%	7%	9%	
STANDARD DEVIATION	8%	9%	16%	7%
RANGE	0%-25%	0%-29%	0%-65%	0%-18%

It appeared that sickness was much higher in local authority homes. On average 12 per cent of manager time and 16 per cent of care assistant time were lost through sickness in local authority homes, compared to 4 per cent in each category in non-local authority homes. Bearing in mind that the number of homes studied was small, this finding cannot be generalised, yet the difference in sickness rates demands an explanation. The researchers noted that local authority employees were paid their normal wage when sick, whereas in non-local authority homes they received statutory sick pay up to a maximum of £52 per week (1995 levels). Indeed, in some local authority homes, staff on higher rates for unsociable hours were paid these higher rates if they called in sick as well as if they worked.

Sickness may be seen as a response to financial incentives illustrated above; it can also be seen as a symptom of environmental stress and under-staffing leading to exhaustion. If the latter is the case, we should expect a high level of depression to be associated with a high level of sickness. We measured staff psychological well-being using the GHQ-12, referred to above, on which a score of 2 or more indicates a level of distress which might warrant treatment or someone likely to have depressive illness or anxiety. The implication is that this is related to stress (at work or at home) and may be likely to impair that worker's performance.

The homes with the largest proportion of staff scoring 2+ on the GHQ included three local authority homes and two private homes. The local authority homes also had the highest rates of absence of care assistants, but the private homes had low sickness rates. Clearly, more complex analyses with larger samples of homes are required to understand the relationship between sickness, depression, stress and quality of care.

*Table 14 Depression in staff measured by GHQ*

	NUMBER OF STAFF RESPONDING TO QUESTIONNAIRE	GHQ MEAN <sup>1</sup>	% SCORING 2+
MEAN PER HOME	18	1.40	27%
STANDARD DEVIATION	4.35	0.41	4%
RANGE ACROSS HOMES	9-23	0.22-4.42	4%-71%

#### ***General Health Questionnaire and depression in staff***

Although the response rate to staff questionnaires (50%) was respectable for an anonymous postal survey, it gives a wide margin of error in GHQ scores. Moreover, the direction of bias is not clear, since very depressed people might have been less likely to respond, whereas disgruntled staff, who may or may not be depressed as well, might be more likely to respond.

Nevertheless, as shown by Table 14, there was considerable variation in the levels of depression in the homes staff who responded. The error introduced by the low response rate means that significance tests demonstrate little, and we can only speculate about apparent differences. Data collected as part of the continuation study will allow us to validate these findings.

### *Discussion of staffing levels*

Home Life: A code of practice for residential care (Avebury, 1984) includes recommended staffing levels per resident in homes for elderly people with physical dependency (572 staff hours per annum) and people who are mentally infirm (676 hours). These correspond to staff-to-resident ratios of 0.06 (1:17) and 0.07 (1:14) respectively, assuming there are 9,740 hours per year. Even allowing for staff absences, the ratios of care staff found in our study fall easily within these guidelines.

### *Qualifications, age and stability of staff*

In addition to measures of the quantity of care provided, such as the staff-to-resident ratios presented above, measures of quality may be inferred from staff training as represented by formal qualifications. For our purposes, formal qualifications were taken to be social work or nursing qualifications, including DipSW, CQSW, CSS, CRSW, SRN, RGN, RMN, CPN and SEN. These are the level of qualifications which local authorities would accept for managerial posts. A degree in psychology was not counted here as a professional qualification. We collected insufficient information to evaluate the training levels of those people who had done City & Guilds, Non-Vocational Qualifications (NVQs), and in-house training, even if accredited by an outside body. A systematic means of gathering data about the diverse forms of training opportunities available at a non-vocational level is recommended for future studies of staff qualifications.

The mean number of staff with any formal qualification was less than two per home. They were invariably the managers, a few of whom had more than one type of qualification (e.g. SRN and CSS), but if this occurred the staff member was only counted once.

Mean length of service ranges from one year, for a new home, to 11 years in a local authority home. Once again, amongst our study sample, there is a marked discrepancy between local authority length of service and others, with a mean for all local authority homes of nearly 10 years, and a mean length of service for other homes of just over 4 years. Of course, the length of time which a home has been open will determine the maximum length of service, and in our study the local authority homes tended to be longer-established.

### *Age*

Not all staff wished to divulge their age category, citing non-ageist policy in the home, but with the data available we were able to place most staff in one of four groups. The results are given in Table 15, and show some variation in the age groups of staff from home to home. There is some evidence that older women who have brought up children make better domiciliary care staff (Jaffe and Jaffe, 1995), and it is noticeable that the proportion of staff, (the majority of whom are women) over 30 varies greatly.

*Table 15: Age categories of all staff working in homes*

	<20	21-30	31-50	51+	<31	31+
MEAN	3%	23%	54%	20%	26%	74%
RANGE	0%-15%	8%-37%	32%-73%	4%-40%	8%-47%	53%-92%

### *Training, supervision and support*

Some more complex indicators of staff quality are derived from two of our questionnaires, and shown in Table 16. The Rating Scale from the Multiphasic Environmental Assessment Procedure (Moos and Lemke, 1984), completed by the researchers, contains a sub-scale called 'staff functioning', and is meant to reflect the quality of interaction between staff and residents, and the relationships amongst staff. It has five items, with a maximum score of 15. The questions relate to observers' judgements of: staff-resident interaction, the amount of physical contact taking place, the general efficiency of the procedures in place, the availability of staff to residents, and any conflict between staff.

The Manager's Questionnaire contains many questions pertaining to staff. A number of these have been combined into the 'staff training and support scale', comprising 16 items, including induction and in service training, appraisal procedures and sickness absence. This has been converted to a percentage of the maximum score in Table 16 to allow comparison with the staff functioning scale.

One of the questions in the Manager's Questionnaire was "how often do staff have supervision" and this highlighted the differences in what managers consider to be staff supervision, ranging from new staff working alongside more experienced staff to managers or team leaders meeting with staff in their team to look at their practice and consider professional development and training issues.

Caution should be exercised in interpreting these data, since the information is subject to bias. The Rating Scale was completed as a consensus between two researchers after spending some time in the home, but was only taken at one point in time. The Manager's Questionnaire was administered to the head of home by one of these researchers, and represents the perspective of that head of home, with no independent verification of his or her statements.

Table 16 Percentage scores on two staff rating scales by home

	STAFF FUNCTIONING (RSV)	STAFF TRAINING & SUPPORT (MANAGER'S)
MEAN	68%	71%
STANDARD DEVIATION	17%	13%
RANGE	40%-100%	40%-90%

Table 16 shows that on both scales the mean and variance in our sample were similar. However, some homes scored higher on one scale than on the other, and the two were not significantly correlated.

#### *Staff-resident interaction*

Non-participant observation was carried out using the Quality of Interaction Schedule (QUIS, Dean et al., 1993). This involves observation of a group of residents in a public part of the home, recording briefly the nature and quality of interactions which take place in the observer's presence. Once interactions are observed and noted, they are coded as positive or negative, social or care-related. In this study two researchers normally observed together then coded their observations by agreement. To maximise the amount of data available, observation was carried out between 11 a.m. and 1 p.m., normally the most active part of the day. The location was to be the busiest lounge or other area where a number of residents congregated.

The methodology presented a number of difficulties. In one home, where residents spent a great deal of time in their rooms, no communal area was in use, and the QUIS was not attempted. Further problems arose where there was not sufficient space for two researchers to sit unobtrusively looking on. In some places it was difficult to observe undisturbed because people tended to interrupt the researchers, and where there were a number of lounges it was difficult to select a representative setting. These problems give rise to some scepticism about the quality of the QUIS data collected. On reflection, it might have been more effective for the observer to 'shadow' a given resident.

#### *Relatives' and residents' satisfaction with staff*

It is vital to take into account the views of consumers. To some extent relatives, as well as residents, are consumers of residential care. Both relatives and residents had opportunities to comment on their views of home staff.

Whilst residents and relatives have a great deal of information pertaining to quality of care, there is the well known problem that users and carers may minimise criticism overall. Despite assurances of confidentiality, residents and rel

## *Conclusions.*

It is perhaps worth noting that it takes about 500 people to run 17 homes for elderly people. This indicates the scale on which training and re-training may need to take place. In this chapter, data pertaining in any way to staff in residential homes have been assembled. These include: their own comments about residential care, levels of staffing and sickness, qualifications, age groups and length of service, researchers' ratings of staff functioning, managers' perspectives on staff training and support, evidence of depression in respondents to the staff survey, and finally comments from residents and visitors about staff in the homes. Some consistency between indicators has been found, including that between the staff functioning scale and the staff training and support scale, between QUIS and the SCES cohesion score. In chapter 7, we shall discuss further the correlations between different variables. Staffing levels may be low because staff may fear retribution if they report poor standards. Relatives sometimes have an emotional 'investment' in seeing the home in a good light, and the possibility that their parent or spouse might be receiving poor care is difficult to face. It is thus possible that homes which are open to criticism, and foster an atmosphere where it is acceptable to complain, might appear to 'do badly' on our analysis of residents' and relatives' comments.

The helpfulness of staff was appreciated by 40 per cent of relatives who responded to our survey, and ranked second only to the home's cleanliness and atmosphere among things which relatives liked. A minority of respondents (7%) cited poor care or poor staffing levels as areas where they would like changes to be made. Of course, these responses may have concerned different homes. Visitors' perspectives are reported more fully below.

## 6. Visitors' satisfaction with homes

*Residential Care - A Positive Choice* (1988) referred to the need for residential homes to have enduring links with the community. The Caring in Homes Initiative developed 'a window on homes' as one of its themes (Youll and McCourt-Perring, 1993). One of its action-research projects was to promote more contact between residential establishments and local communities. The visitors, both relatives and friends, of residents in a residential home are a necessary part of the community of a home. Hence in trying to build a multidimensional measure of the quality of life in residential care it is vital to take their views into account.

For most people, the decision to place a relative in a home is a traumatic one and it is a time for mixed feelings. The relief may be accompanied by feelings of guilt, there may be concern that the care is not what they expected. Perhaps they do not want to complain because they can see the pressures on staff, or they may be wary of possible repercussions on their relative. Some people may have concerns about the cost implications of drawing attention to problems. Resignation may set in if the home in question was the best that could be found, or indeed the only option.

### *Method*

A postal questionnaire was sent to visitors (both relatives and friends), containing a number of open-ended questions. It was also translated into Gujarati for those people who chose to respond in this language. Those responses returned in Gujarati were translated back into English before coding.

We received 228 completed questionnaires, a response rate of 60 per cent which is good for postal questionnaires. The response rate varied widely across the homes with the highest response rate (81%) occurring in a local authority home and the lowest (34%) in one of the Asian homes. This might raise concerns about language barriers, but the other Asian home in the study had a response rate of 63 per cent, which suggests that the translation was effective. There was little difference between the mean response rate for the private and voluntary homes (61%) and that for the local authority homes (59%). The answers to the open ended questions were coded after receipt of all the replies.

### *About the respondents*

The mean age of respondents was 60 years (standard deviation 11 years). The mean ages for each home showed a range from 51 to 68 years. These means disguise the wide variation in the ages of relatives and friends. The oldest visiting relative was a husband of 88 and the youngest a grandson of 26. The lower mean age scores for several homes were accounted for by nieces,



nephews and grandchildren. Our data confirms what many studies of the care of elderly people in this country have demonstrated: that an ageing population of very elderly people are looked after primarily by carers who themselves are elderly. The relationships of respondents to residents are presented in Table 17, which shows that relatively few spouses responded and that daughters constituted the majority of the visitors to the study homes. This is consistent with the findings of Neill and Williams (1988).

One hundred and thirty (57%) of our visitors had been primary carers, caring for sixty-eight per cent of the residents who had been supported in their homes prior to admission. Thus we assumed that these respondents would have a good understanding of the resident's care needs.

*Table 17 The relationship of the respondent to the resident*

RELATIONSHIP	TOTAL N = 226	%
DAUGHTER	85	38%
SON	55	24%
SPOUSE	9	4%
SIBLING	20	9%
OTHER RELATIVE	45	20%
FRIEND / NEIGHBOUR	12	5%

### *Choice of home*

Only 75% of visitors had seen the home before the resident was admitted, and these people indicated that the location of home and its perceived comfort, cleanliness and atmosphere most often governed the choice of home. Of course, it may often be that a decision about admission is constrained by so many factors that no real option exists.

### *Travel time and frequency of visits*

The mean travel time taken by visitors to all the homes was 43 minutes (standard deviation 86). The minimum time was 0 minutes (a spouse who was also a resident in the home) and the maximum was 15 hours (a daughter living in the United States). Most people had a journey of about twelve minutes, but several relatives lived abroad and made an annual journey to stay locally and then visit daily for the duration of their stay.

The mean number of visits per year for all homes was 89 with the range from one to 365. This finding indicates that many friends and relatives visit at least once a week or more frequently. They are therefore an important part of the life of the residential home.

### *The role of visitors*

Respondents were asked what they usually did when they visited the home. As shown in Table 18, 'socialising' was the most common activity performed by friends and relatives. It included chatting (most frequently mentioned), looking at photographs, providing news of the family and discussions about present circumstances. This finding is consistent with previous research (Wilcox et al., 1982; Bowers, 1988; Peace et al., 1987) which shows that the role of relatives is primarily one of providing social and emotional care.

When asked if they provided any care which is different from that provided by the staff in the home, over half (59%) of respondents replied 'no'. However, a number of respondents mentioned various types of care, including activities such as 'setting hair', 'trimming beard and moustache' or 'cutting nails'. In some instances they explained that this was because their relative preferred them to undertake this task rather than having a care worker do this. This result shows that, when prompted to disclose whether they provide any care during their visits, a greater proportion mention aspects of care they did not recall in the previous question. Other respondents perhaps do not regard socialising as care.

*Table 18 Tasks undertaken by respondents when visiting the home*

TASK	PERCENTAGE OF RESPONDENTS
	N = 228
SOCIALISING	94%
TAKING OUT AND ABOUT	28%
CHORES (SHOP, PENSION, FINANCIAL MATTERS)	10%
PERSONAL / PHYSICAL CARE	7%

### *Frequent visitors*

We have already mentioned that former carers might be better judges of residential care. Others whose opinions should be given added weight are those who visit frequently. We therefore undertook a more detailed analysis of the 'frequent visitors' to the study homes. For the purposes of our analysis, we defined these as any friend or relative who visited more than once a week. As the most committed of the visitors to the homes in the study, their responses deserve further scrutiny.

When asked what they did when they visited the home we found that more of the frequent visitors were involved in performing practical tasks for the residents (23% as compared to 10%) and considerably more provided personal care (16% as compared to 7%), as shown in Table 19. Tasks included as "shopping for new clothes", "sorting out her finances", "some washing" and "changing the batteries in her hearing aid". However, a number of relatives

made the point that this was often at the request of the resident or that they had chosen to do this, not that the home could not provide similar help.

*Table 19 Care undertaken by the frequent and less frequent visitors*

CARE	LESS FREQUENT VISITORS N=128	FREQUENT VISITORS N=100
SOCIALISING	4%	11%
TAKING OUT AND ABOUT	6%	7%
PHYSICAL / PERSONAL CARE	7%	16%
CHORES (SHOP, PENSION)	10%	23%

### ***Religious and cultural needs***

The majority of respondents (93%) felt that their relative's or friend's cultural and religious needs were being met. Many mentioned the religious services or individual communion arrangements which took place in the home. The respondents for those residents in the Asian homes documented their views of the cultural sensitivity of the daily life of the home.

### ***Views of the home***

We asked whether the respondent thought that their relative liked being in the home. In view of the bias towards placating the researcher in such circumstances, it was not surprising to find that the majority (89%) answered in the affirmative. Where they answered 'no' to this question, the usual reason given was that the resident would prefer to live in their own home but was too frail or disabled to be able to do so. The responses to the question asking what visitors liked about the home and disliked about the home are given in Tables 20 and 21.

*Table 20 What visitors liked about the home*

LIKES	N = 228
COMFORT / CLEANLINESS / ATMOSPHERE	76%
STAFF HELPFUL	40%
MEETS SPECIFIC CARE NEED / GOOD FACILITIES	20%
CONVENIENT FOR VISITORS	8%
MEETS CULTURAL / RELIGIOUS NEEDS	4%
LOCALITY FAMILIAR TO RESIDENT	1%
OTHER	17%

*Table 21 What was disliked about the home*

DISLIKES	N = 105 <sup>1</sup>
PHYSICAL DISCOMFORT OF THE BUILDING	17%
LACK OF ACTIVITIES IN THE HOME	15%
LACK OF SUPERVISION / UNDER-STAFFING	15%
ATTITUDE / APPEARANCE OF STAFF	7%
INADEQUATE / POOR FOOD	4%
BAD TIMING OF MEALS / BEDTIMES	4%
NOT ENOUGH TRIPS	4%
OTHER	37%

<sup>1</sup> Not all respondents named any dislikes.

### ***Likes and dislikes***

Over three quarters of respondents (76%) felt that the atmosphere and comfortable and clean interior of the home were of most importance.

Many mentioned the "homely" atmosphere particularly in the smaller (private) homes. Under 'other' respondents mentioned aspects such as the manager's or

owner's helpful and pleasant attitude, the garden facilities, general remarks about the quality of the care and the fact that the home was situated near shops and parks. Twenty per cent of respondents commented favourably on the home meeting specific care needs:

My aunt has several anti-social habits that they cope with extremely well. They seem to want to keep her - I've never felt they would like her to leave.

Almost half of the respondents (46%) could identify things they disliked about the home. Here, we focus particularly on dislikes because they may suggest areas for improvement in the homes. The majority of dislikes (17%) came into the 'other' category. These included remarks such as "full of old people", "a long way to visit".

Visitors' comments about staffing (7%) covered shortages or the problem of encountering a different staff member on each visit, rather than detailing examples of poor care.

There does not appear to be one person, or deputy in charge. The staff seem to work a rota and a different person seems to be in charge each time I have needed to see anyone.

I don't like bringing my relative home with no carer on the unit, usually in the mid-afternoon. This is no fault of the carers but the staffing levels.

More personal attention to residents. I found one of my letters unopened in her room... she had forgotten it was there (a daughter who lives abroad).

Several respondents mentioned adverse changes in staff practices or financial cuts:

Too many bank staff. I would like the local authority to employ extra staff on a permanent basis.

The last question in this section of views about the home asked the respondent whether they would like to see any changes in the home or in the care given to their relative. Once again, no prompts or choice of answers were given. Table 24 gives details of the suggested changes spontaneously mentioned by the respondents. As mentioned in chapter 4, the provision of activities was the most frequently mentioned change which respondents wished to see in the home:

Encouragement to be more mobile. Mother has withdrawn into herself. This is more pronounced now she is in the home. There does not seem to be activities organised to stimulate both the mind and body.

The 16 per cent of respondents who commented on staffing issues mostly suggested that an increase in staffing levels would improve the care given in the home.

More staff, although the residents not neglected in any way.

We would like to see a rota so they get a bath every week.

I would like to see at least one more staff on at night, and the staff able to get hold of a manager at all times.

Asked for any other comments, the majority of visitors made positive ones. However, two respondents mentioned the increased number of residents with severe dementia:

When my father first went there the proportion of compos mentis residents was high. The balance has changed and residents seem in general to be less able to communicate with each other.

Seven respondents mentioned how financial pressures had led to a change in the services or the home being run "more as a business":

I do feel that standards have deteriorated recently, mainly because of cost cutting i.e. on items such as incontinence pads etc. Also staff have not been replaced. Also more emphasis should be put on motivating residents instead of letting them sit in an armchair all day.

Six respondents made critical comments about the lack of activities, entertainment or outings from the home. Comments included:

Clean and reasonable attention, however no activities or outings for active residents.

My aunt never leaves her room (other than being taken for a bath) and might respond to company if ways could be found for her to communicate.

*Table 22 Changes which relatives and friends would like to see in the home or in the care given*

SUGGESTED AREAS FOR CHANGES TO BE MADE	PERCENTAGE OF RESPONDENTS
	N = 228
MORE ACTIVITIES IN THE HOME	17%
STAFFING ISSUES	16%
MORE OUTINGS / TRIPS	6%
ATTITUDE / APPEARANCE OF STAFF	3%
PHYSICAL COMFORT OF THE BUILDING	3%
FOOD	2%
TIMING OF MEALS / BEDTIMES	1%
OTHER	6%

***Frequent visitors' likes and dislikes***

When asked what was liked about the home, there were no significant differences between more and less frequent visitors. When asked what was disliked about the home there were significant differences in the category of "other". Whereas 15 per cent of the less frequent visitors' remarks came into

this category, 26 per cent of the frequent visitors gave responses which were given this code. Their remarks included:

Too many items go missing.

Large groups of residents watching TV which is on too loud.

I would like to be 'phoned when my mother is ill.

It appears that their greater contact with the home generated more diverse responses from the frequent visitors. They also made more suggestions for changes to be made in the home. Comments about suggested changes, summarised in Table 22, included:

Incontinence deserves more attention.

Not enough staff to be able to take the residents for a walk.

Staff should remember the tablets for my relative.

More of the frequent visitors also mentioned "more activities" as a suggested area for change (19% of frequent visitors, 16% of less frequent visitors).

### ***Conclusion***

The visitors questionnaire provides rich qualitative data on many aspects of life in residential care. Whilst some caution must be used in generalising the findings because of the variable response rate, it nevertheless provides us with evidence that many relatives and friends have considerable influence in the choice of home and are then actively involved in providing emotional and practical help, and in some instances personal care, to the residents. We have seen that some friends and relatives maintain very regular contact with the homes and that kinship and friendship ties appear to persist despite one party living in residential care.

We found that relatives and friends often augment the care which is provided in the home by undertaking a range of personal maintenance and enrichment tasks for the residents. Visitors have some thoughtful and inspiring views about how the quality of life in residential care could be improved. The provision of more activities for residents and an increase in staffing ratios to enable staff to spend more time with residents were particularly recommended by visitors.

Visitors identified both deleterious changes in the delivery of care and the increasing mental and physical frailty of the residents. Their comments can be seen as a barometer of the changing nature of residential care in recent years.

## 7. The homes compared

After collecting our data, it became apparent that the hypotheses which were put forward at the start of the research would not be helpful in further exploring what we had found.

### *Testing of initial hypotheses*

We set out to compare homes which had participated in the Caring in Homes Initiative (CHI) with similar homes which had not participated, to look at the sustainability of change and the effectiveness of such development programmes. Our original criterion of performance was homes' sensitivity to depression in residents. This would mean that the people who were shown by their score on the Brief Assessment Schedule (BAS) to be suffering from depression received anti-depressants. (We did not know whether those people who were not depressed according to the BAS and who were receiving anti-depressant medication were being appropriately treated or not, access to detail of their medical history would have been required).

Residents in homes which had participated in the CHI were not more likely to be treated for depression, thus disproving our initial hypothesis.

Indeed, the hypothesis that CHI homes would be superior in this respect, or in any way, was proved untenable by early data analysis. It became clear that our research design could not control for all the factors which might alter CHI homes, including staff changes, reorganisation in the local authority and refurbishment of buildings. Programmes like the CHI generate changes which may be difficult to discern within the homes themselves, but differences between CHI homes and non-CHI homes are even more elusive.

### *Further data analysis*

The instruments listed in Appendix A and summarised in diagram 1, chapter 1 yielded numerous sub-scales and variables relevant to the exploration of quality. We turned to these to develop our analysis of the factors most closely associated with quality in homes.

We organised the data in accordance with the theoretical approach described in chapter 1, classifying them as:

- non-resource inputs,
- inputs, and outputs or process indicators,
- costs, and
- outcomes.

We saw the non-resource inputs as structural variables. They relate to case mix, as discussed in chapter 2, and reflect aspects of the home and its residents



which themselves might be expected to have a large effect on care, and which are beyond the control of managers or others to alter.

Inputs include those factors which might be expected to be affected by investment in homes: staff training, experience and staffing levels, the standards set in care plans, and medication. In our initial analysis data from the managers about systems and procedures were included as inputs. Inputs of this type have an impact on costs. However, they are difficult to differentiate from process indicators, so we grouped them all together.

Process or output indicators derived from this research included many of the MEAP sub-scales, together with depression in staff, the appropriateness with which the home responded to depression in residents, and its responses to other health needs. Costs were calculated for the homes and for the mean costs of additional services used by the residents in each. Their relationship to quality will be discussed in the next chapter.

As stated at the beginning of this report, the cross-sectional research design did not permit us to measure outcomes directly. However, we devised a number of proxy outcome measures relating to satisfaction and dis-satisfaction on the part of relatives and residents. They will be referred to here as subjective outcome measures. In addition, we asked our two pairs of researchers, as experts who had examined seven or eight homes in considerable detail, to assess which of them they would choose for a relative of theirs. Combining the top homes from each pair gave us a 'researchers' rating' of the homes in the study.

We composed a near-exhaustive list of the input and output variables which were postulated (either by previous research or by our own observation) as correlates of quality care. Many of these variables have been discussed in detail in the preceding chapters. We were able radically to reduce their number by eliminating all those measures which did not vary much across the homes in this study. If they did not vary it was clear that they would not be useful for our purpose of discriminating between good and less good homes.

### ***Tests of correlation between measures***

We tested for correlations between the remaining variables, and eliminated those which covered the same subject (i.e. came from the same instrument) and which showed correlations significant at the one per cent level. Our assumption was that they were measuring the same underlying construct. Finally, on inspection it became clear that the inclusion of two similar variables was antithetical. One was 'level of anti-depressant medication in home' and the other was 'proportion of residents appropriately treated for depression'. It was clear that high levels of anti-depressants did not exclude appropriate treatment, so the latter variable was chosen in favour of the former.

The process described above left us with 25 variables, which were not significantly correlated. They came from the following sources: staffing data collected for the study, Rating Scale V of the MEAP, the Manager's Questionnaire, the Care Plan analysis, the drug charts, the GHQ, BAS, Health Needs Matrix, and the Sheltered Care Environment Scale of the MEAP.

Table 23 lists the variables chosen, their source, and the variable name given for our analysis. They include both resource inputs and outputs, or process indicators.

### ***Rationale for ranking***

The approach to data analysis described here is unavoidably preliminary and crude, and any conclusions drawn from it must be suitably qualified. However, in an attempt to summarise the information from these different sources, it was decided to rank the homes according to their score in each of the selected variables. Since each variable was measured on a different scale, direct comparisons between homes is difficult. Many of the scales are themselves arbitrary. The results here are presented in the form of a league table where the homes are ranked from the highest to the lowest on each scale according to their scale score. The attribution of 'high' and 'low' - whether to rank in ascending or descending order - derived from the researchers' consensus value judgement. Whether variables were scored in ascending or descending order is indicated by 'a' or 'd' in Table 23.

This approach permitted preliminary comparison of the homes on various indicators of quality. Assuming that all the variables carry equal weight, rankings may be compared across the variables and between homes to summarise our multidimensional data.

The assumption of equal weight to all variables is, of course, arbitrary. Is proper medication more or less important than adequate stimulus for a resident of a home? Is having a care plan as important as staff functioning? Experience teaches us that some measures are more important than others. Some are important in themselves, as part of the care process, and some may be associated with good outcomes. Assessors might also weight factors differently; inspectors, managers, residents and visitors will have divergent views on many of them.

Table 23 Home level variables included in rankings analysis

*	DEFINITION	SOURCE
D	ACTUAL MANAGER RATIO + ACTUAL CARE STAFF RATIO	STAFF SICKNESS RECORD
D	% STAFF < 31 YEARS OLD	STAFFING DATA
D	STAFF FUNCTIONING	RATING SCALE V
D	PHYSICAL ATTRACTIVENESS	RATING SCALE V
D	STAFF TRAINING & SUPPORT SCALE	MANAGER'S INTERVIEW
D	CARE PLAN - PHYSICAL	CARE PLAN
D	CARE PLAN SOCIAL	CARE PLAN
D	FREQUENCY OF VISITOR CONTACT	RELATIVES' QUESTIONNAIRE
D	PROPORTION APPROPRIATELY TREATED FOR DEPRESSION	DRUG CHART & BRIEF ASSESSMENT SCHEDULE (BAS)
A	PROPORTION ON MINOR OR MAJOR TRANQUILLISERS	DRUG CHART
A	PROPORTION ON ANALGESIC	DRUG CHART
A	TOTAL N DRUGS	DRUG CHART
A	DEPRESSION IN STAFF % CASES	GENERAL HEALTH QUESTIONNAIRE
A	PREVALENCE OF DEPRESSION	BAS
A	MEAN DEPRESSION SCORE ON BAS	BAS
D	SENSITIVITY TO DEPRESSION	HEALTH NEEDS MATRIX
A	SICKNESS RATES - CARE STAFF	STAFF ABSENCE RECORDS
A	CONFLICT	SOCIAL CARE ENVIRONMENT SCALE (SCES)
D	INDEPENDENCE	SCES
D	SELF DISCLOSURE	SCES
D	ORGANISATION	SCES
D	ACTIVITY ENCOURAGEMENT	MANAGER'S INTERVIEW
D	PHYSICAL COMFORT	SCES
D	RATE OF 'GOOD' HEALTH RESPONSES	HEALTH NEEDS MATRIX
A	RATE OF 'BAD' HEALTH RESPONSES	HEALTH NEEDS MATRIX

Table 24 Summaries of rankings

HOME		`WORST' 3 <sup>1</sup>	`WORST' 5 <sup>2</sup>	`BEST' 3 <sup>3</sup>	`BEST' 5 <sup>4</sup>
	MEAN RANK FOR EACH HOME - 25 VARIABLES	LOW RANKING METHOD 1	LOW RANKING METHOD 2	HIGH RANKING METHOD 1	HIGH RANKING METHOD 2
1	9.04	4	6	2	6
2	9.35	3	5	3	4
3	7.39	8	11	3	3
4	8.65	3	6	4	7
5	9.22	3	5	3	7
6	8.13	6	8	5	9
7	9.65	5	6	3	7
8	9.70	0	3	4	5
9	7.09	8	11	3	3
10	11.74	2	5	9	13
11	7.96	6	10	3	6
12	7.43	7	11	4	5
13	7.09	4	9	1	4
14	8.74	6	8	5	7
15	10.48	2	6	7	10
16	11.78	1	3	5	12
17	8.48	1	2	5	7
mean	8.94				

We adopted three different ranking systems, which generated five results for each home. First, the mean rank for each home was derived by adding together all the ranks achieved by the home and dividing by 25. Second, the frequency with which a home ranked very high or very low was examined, taking the top 3 ranks and the bottom 3 ranks as cut off points. For this purpose, ranks 15, 16, and 17 were 'high' and 1, 2 and 3 were 'low'. Finally the five ranks at each extreme were classed together, giving a slightly broader

1 The number of variables on which each home ranked in the bottom three.

2 The number of variables on which each home ranked in the bottom five.

3 The number of variables on which each home ranked in the top 3.

4 The number of variables on which each home ranked in the top 5.

category of 'high' and 'low'. The results of this analysis are shown in Table 24, a summary ranking analysis, which shows the mean ranks score for each home, together with the frequency with which that home fell into the two low categories and two high categories.

It should be noted that few homes were consistently ranked low or high. This is why the mean rank score can be deceptive, and the distribution, or balance between low and high scores should also be taken into account in comparing quality between homes. Home 17, for example, did poorly on the mean ranking because it had a high number of low scores as well as a high number of high scores.

*Table 25 Number of appearances of homes in top six ranks on five measures*

WHETHER HOME APPEARS IN TOP SIX HOMES ON EACH MEASURE						
HOME NO.	MEAN	N1-3	N1-5	N13-17	N15-17	TOTAL
1						0
2	X		X			2
3						0
4		X		X		2
5		X				1
6				X	X	2
7	X					1
8	X	X	X			3
9						0
10	X	X	X	X	X	5
11						0
12						0
13						0
14					X	1
15	X	X		X	X	4
16	X	X	X	X	X	5
17		X	X	X	X	4

High and low scores on the ranking analysis can not be assumed to be antithetical, that is, doing well on one aspect cannot logically cancel out doing badly on another aspect, so arithmetical calculations using the ranks shown in Table 24 are fraught with difficulty. Nevertheless, we went on to examine

how often a home performed well (defined as among the best six homes) on the five ranking systems. Table 25 summarises the number of times which each home appeared in the top 6 ranks, using the five different ways of ranking.

Homes 16 and 10 appeared in all five possible categories. Home 17 appeared four times, but, crucially, did not appear in the mean rank 'top six'. By contrast, home 15 appeared four times, including the mean rank score. Like home 17, home 4, despite appearing three times using this method, did not figure in the mean ranking, while home 8, which only appeared twice in the other possible columns, scored a high mean rank. No other home appeared more than twice out of a possible 5 appearances, which makes the inclusion of homes 2 and 7 in the mean ranking a bit misleading. Home 7 had a high mean but did not come into the top six on any of the frequency measures, while home 2 only appeared once.

### *Conclusions*

In terms of the processes or outputs of the homes we can conclude that homes 10, 16, 15 and 17 did consistently well across all our ranking analyses. Home 8 appeared 3 out of a possible 5 times in the top group, and so might be considered among the superior homes. Although homes 4 and 6 appeared twice in our frequency count, they did not achieve high enough mean ranks to be included in that top six. However, home 2, despite only appearing once on our frequency ranking, did make it to the mean top six. Whilst home 7 scored a high mean rank, it did so without being outstanding on any of our variables, and this must be borne in mind. Nevertheless, if we wished to state which half of our study group appeared to include superior homes, these would be homes 10, 15, 16, 17, 8, 4, and 6.

Since the homes studied were not a random sample of all residential care homes, it should be remembered that those homes which do not figure in the 'top ranks' are not less good in an absolute sense, but only relative to the high ranking homes. All the homes in the study were chosen from amongst good residential care homes, and from the rankings analysis alone no inferences can be made about the distance between the top and bottom ranks in this study group.

### *Outcome measures*

As stated in chapter 1, the measures available at this stage in the study are merely cross-sectional, and we can only speculate about the relationship between the inputs and processes evaluated above, and the experiences and attitudes of relatives, residents and researchers in judging the home. These subjective criteria are the best approximation that we have to 'outcomes' at present.

Relatives' likes and dislikes were discussed in some detail in chapter 5. A summary scale of resident dissatisfaction was derived from the Question of Quality questionnaire, and the scores by home are summarised in Table 26, where 'relatives' includes all visitors who responded to the postal questionnaire. The response rate, which was quite variable, is also given, to indicate the reliability of the scores for each home. When we ranked these

results, together with 'proxy outcome' variables, shown in Table 26, we found that homes 3, 10, 1, 2, 4 and 17 were the most popular. (Note that where scores were the same for more than one home the ranks assigned to those homes were tied.)

*Table 26 Measures of satisfaction*

VARIABLE >	RESIDENTS' DIS-SATISFACTION	RELATIVES' LIKES	RELATIVES' DISLIKES	RESPONSE RATE RELATIVES
MEAN	1.53	1.61	0.36	0.60
STANDARD DEVIATION	0.33	0.24	0.16	0.12
RANGE	0.93-2.20	1.20-2.20	0.10-0.70	0.34-0.81

***Researchers' choice***

The researchers were asked to rank the homes they had studied on the basis of their own experience, and this produced a score of 1 (home rated relatively highly by researchers) or 0.

In general, there was little agreement between this method and the measures of satisfaction rating. The researchers agreed with residents and visitors about the good scores given to homes 1 and 10, but they rated home 16 in the better half of the homes studied. The subjective measures summarised in Table 26 placed home 16 last, but it performed very well on our ranking exercise. Of course, an explanation for the discrepancy between residents' and visitors' opinions and the variable scores might be the fact that better homes enable consumers to express honest and open opinions without fear of reprisals. Thus they would generate more expressed dis-satisfaction.

Neither was there much agreement between researchers' rankings and the results of our ranking by variables. More analysis is required to understand the relationship between our criteria of quality, and to link the process and outcome indicators, but these preliminary findings do support the lack of consistency even between independent 'expert' judges which was found by Gibbs and Sinclair (1992).

## 8. The costs of care

### *Background*

With the policy emphasis on obtaining value for money and the high costs associated with residential care there is considerable interest in the relationship between costs and quality of care. But the studies that have examined quality of care and costs in homes for elderly people to date (Bland et al, 1992; Darton and Knapp, 1986) have not found any direct association with costs either between or within sectors.

It is not to be expected that a study of this scale will be able to establish any definitive relationship between quality and costs. It is of interest, however, to establish the costs of care provided in the homes included in the study and to explore the implications of these for future work.

The objectives of this chapter are to:

- describe the estimation of the cost of providing care in each home;
- describe the resulting costs per resident per week in each home; and, as far as possible,
- explore the variations in the costs and link them to information about characteristics of the homes.

### *Theoretical background and basic principles*

The economic concept of opportunity cost defines what should be measured and how when estimating costs. The rationale behind using this approach is discussed in detail elsewhere (see Netten and Beecham, 1993). Ideally the opportunity cost of a service represents the value of alternative uses of the resources tied up in the production of that service. The long term marginal cost of a unit of service represents the value tied up in producing an additional or marginal unit in the long term. So when estimating the cost of residential care it is relevant to include capital costs as, at the margin, a new facility may need to be constructed or the existing building may be sold to another provider of care or for alternative use.

This provides a valuable starting point in the estimation of costs, but inherent in the theory and the variety of purposes for estimation is a central characteristic of economic cost: there is no one absolute figure which represents the cost of a service. How the cost is estimated depends on the purpose of the costing and the circumstances of the service. In the example above of residential care whether the capital cost of the facility is represented by new build (implying an expanding service) or market value (implying the need to sell off existing buildings) will depend on the purpose of the study and the prevailing situation in the field of residential care.



The process of estimation has implications for the way in which cost information can and should be used. Integrating these issues Knapp (1993) has identified the basic principles of applied costs research summarised in four 'rules':

- costs should be comprehensively measured;
- when comparisons are made only like-with-like comparisons have full validity;
- cost variations that inevitably arise in an empirical exercise should be explored and exploited; and
- cost information should be integrated with information on user and other outcomes.

### ***Method***

Data on resource use by individual residents and the characteristics of the homes was collected by the social researchers. The financial information was sought separately by the economics researcher

### ***Revenue costs***

Annual expenditure for the financial year 1994/95 was used as a basis for estimating the revenue cost of the homes. The private sector homes provided their financial statement of profit and loss, and balance sheet. Local authority homes provided revenue and expenditure statements, and social service management overheads. The housing association homes provided revenue and expenditure statements, and management overheads.

The accounts and expenditure statements covered provisions (food and consumables); staff costs (wages, salaries, national insurance, and so on); establishment related expenditure (maintenance, heat light and power, rates and insurance); other expenditure (including resident transport and trips, vehicle insurance, training expenses) and in some cases allowance for management overheads

A consistent approach to estimation is required in order to ensure as far as possible that like is being compared with like. To this end minor adjustments were made to the financial information in order to eliminate double counting and incorporate estimates where data were not available. The areas where information was least consistent were the costs of furniture and fittings and management overheads. The data available were insufficient to develop a consistent approach to estimating the costs of furniture and fittings which were excluded but it was possible to allow for management overheads for each of the homes.

The private homes included management overheads in their accounts as expenditure items such as accountancy fees (none of the private homes in the study was part of a larger corporate organisation). Five out of the nine local authority homes included central social service management overheads in their expenditure statements. These were used as a basis for estimates for the remaining four local authority homes as a proportion of staff costs. Staff costs were chosen as they were available for each home and provided the most

consistent measure of level of activity which would affect overhead costs. Similarly, two of the housing association homes included management overheads and these estimates were used as a basis for the two remaining housing association homes.

### ***Capital costs***

In order to estimate the opportunity cost of capital tied up in the provision of residential care it is necessary to establish first the value of the capital and second to estimate the annual opportunity cost of this spread over the expected life of the building. Two principal approaches to valuing the capital stock are usually taken: the cost of new build or current market valuation. As identified above, which is chosen depends on the purpose of the costing exercise and relevant factors affecting the service being costed. The quality of provision is better illustrated by the market value of the individual home rather than a generalised cost of new-build. Moreover, in the current climate the alternative at the margin is more likely to be selling the home or business rather than expanding to build another home.

Each of the homes or managing authorities was asked for a valuation of the freehold property together with any freehold improvements. This figure was available for most of the private homes and some of the housing association homes. Where these data were not available an estimate was made based on the mid-point of the council tax property valuation band.

In order to convert the capital valuation into an annual cost the value is discounted over the expected life of the building. This represents a flow of income that could have been received if the capital value had not been tied up during that period. All of the homes were assumed to have an expected life of 60 years. The Treasury recommend that where the service is or could be traded on the open market that the discount rate used should be 8 per cent. (In the public sector normally a 6 per cent discount rate is used.) Given the range of providers in the study and the well developed mixed economy in residential care of elderly people a discount rate of 8 per cent has been used throughout (the impact of choice of different discount rates on final estimates is discussed below).

Mortgage interest and capital payments, rent and structural alterations were excluded from expenditure information in accounts to avoid double counting.

### ***Regional price variations***

In order to make the costs comparable adjustments need to be made to reflect any known variation in the price of inputs faced by providers. London prices are consistently higher than those for the rest of the country so adjustments were made to the costs of the one home located there. The home was managed by a housing association. No information was available about variation in service specific costs for housing associations although there is information about private provision and local authorities. The cost profiles of housing associations are closer to local authorities than private providers so local authority variations were used as a basis for the estimated adjustments for both capital and running costs (Netten and Dennett, 1995).

### ***Estimating unit costs***

In order to estimate the weekly cost per resident it was necessary first to ensure that costs not properly attributed to residents were excluded and then to allocate costs to the appropriate number of residents.

### ***Services for non-residents***

Homes often provide services that are primarily for the consumption of non-residents. For example, in the sample two homes provided meals and meals on wheels, one home provided a laundry service and another a bathing service. Wherever the production of these services was at a sufficient scale adjustments were made to reduce the levels of expenditure accordingly.

Twelve of the homes also provided day care where there are more problems associated with the allocation of costs. Day-care clients may use different resources within the homes from the full-time permanent residents and their attendance varies from every day to once a week or less. They are often more independent and less infirm than the permanent residents and consequently require less intensive staff input. Often the day-care clients occupy a separate purpose built or purpose equipped section of the residential home.

Different methods should be used to split different elements of cost between residential and day-care clients. Where there are clear measures of consumption it is relatively simple. For example meals and kitchen staff costs may be split according to the number eaten by the two groups, establishment costs may be split according to the square footage or volume of the rooms occupied by day-care clients. However, it becomes more complicated if the two groups use the same rooms during the day and the care staff divide their time on an ad hoc basis between day care clients and residents.

Where the managing agencies estimated day and residential costs separately (usually where there were separate but attached centres) the residential element of the accounts only was used. Where day care costs were integrated and more than one or two people received day care the number of staff allocated to allow for day-care was identified and the associated costs were deducted. The costs of a midday meal per attendance were deducted and an adjustment was made to reflect the capital costs in terms of floor space.

Once the costs associated with the provision of care for residents had been identified, the next stage is to convert this estimate into a unit cost using the level of activity, in this case number of resident weeks.

### ***Occupancy level adjustments***

Although most of the homes were full for the duration of the study period they did have empty beds for short periods when residents transferred to other homes with a higher level of care or died. The period beds were left open varied from between three days to six weeks, with most homes keeping beds of deceased residents empty for about a week as a mark of respect for the relatives. One home opened for the first time during the study and underwent a period of several months settling in during which it did not operate at full capacity.

For each home the costs were adjusted to account for the occupancy level and number of weeks open in order to reflect the cost per actual resident. The occupancy rate was taken as the percentage of beds filled during the financial year 1994/5. Eleven of the 17 homes were able to supply the exact number of days their long and short term beds had been vacant during the financial year. For five of the remaining six homes that were unable to supply these data the occupancy rate was calculated as the level at the time of the home managers interview. For the sixth home the occupancy rate was based on the occupancy level identified in the residential accommodation statistics return to the Department of Health.

### ***Additional services***

Homes vary in what they provide for residents and quality of care may be affected as much by additional services as by the care provided directly by the home. It is important, therefore, when costing care received, to identify all services received by residents.

Details of all additional services received and extra costs incurred by the clients during the three months prior to the study were collected by the social researchers. This information was gathered in triplicate using a standard costing checklist from the resident, the care plan and the key worker. The checklist asked for the number of times the service had been received in the last three months, where the service was received, in the home or not, the sector providing the service and, if appropriate, how much was paid by the resident or their family.

The three sources of information gave different results. Residents were sometimes confused about when and what they had received and, given the prevalence of dementia, was the most incomplete record. There was some measure of agreement between the care plan and key worker's versions of events. For the purposes here the care plan information has been used as a basis, with an alternative estimate, which reflects the key worker's view, where the estimates of services received were most divergent: chiropody, GP visits and hairdressing.

Appendix D shows the unit costs used when estimating the costs of the services received. For the most part these were drawn from national estimates provided in Netten and Dennett (1995).

The total additional service cost was calculated for each resident in the study. The average costs per resident per week for each home was calculated in order to estimate the total 'package' costs.

### ***Results***

Table 27 shows the estimated capital, revenue and total cost of each home excluding additional services. It is, perhaps, helpful, to set these estimates in the national context. Information about costs and charges are more or less available according to the sector of provision. The sample local authority homes average revenue cost (£266) was rather less than the most recently available national average of £303. The discrepancy may reflect, in part, the fact that expenditure data on which this estimate is based would not have been adjusted to allow for the provision of services for non-residents. For private

homes information is only available about average levels of fees rather than costs. The average fee income of the sample private homes was £227, the same as the national average of £228 during 1994/5 (Laing and Buisson, 1995). There is no information about national levels of voluntary provider unit costs.

*Table 27 Estimated capital, revenue and total costs per resident week*

£ 1994-5	CAPITAL COST	REVENUE COST	TOTAL COST
MEAN	19.77	238.41	258.19
MINIMUM	8.94	161.08	184.48
MAXIMUM	56.81	423.47	441.74
STD. DEV.	11.13	60.82	58.46

Table 28 shows the number of residents receiving other services, and cost per week for those receiving the service. During the previous three months residents were most likely to have had some contact with their GP, chiropodists and district nurses. The most costly service, as would be expected, is inpatient care. For the few residents who made use of day hospitals, the costs were very high reflecting both high unit costs and frequent receipt of the service. The high average cost of audiologist contact reflected a resident who was paying for a private provider.

Table 29 shows the average cost of these services by home and total package costs. Overall additional services add about six per cent to the revenue costs of care when inpatient and outpatient services are included and four per cent when hospital services are excluded. This is in line with previous work which estimated that other services added five percent to revenue costs (Knapp et al., 1992).

As would be expected from the range of services received, the vast majority of costs for additional services were borne by the NHS. When in and outpatient services are included 86 per cent of service costs are borne by the NHS. This drops to 76 per cent when these services are excluded. Local authorities bore 17 per cent of these costs and residents the remaining seven per cent.

Table 28 Other services received by residents\*

	NO. OF RESIDENTS RECEIVING	AVERAGE COST PER RESIDENT WEEK POUNDS <sup>2</sup>
	N = 301 <sup>1</sup>	
<b>GP</b>	190(224)	4.49 (3.55)
<b>CHIROPODY</b>	127(205)	1.11 (1.54) <sup>3</sup>
		0.67 (0.80) <sup>4</sup>
<b>DISTRICT NURSE</b>	106	5.20
<b>HAIRDRESSER</b>	96(187)	1.51 (1.65)
<b>OUTPATIENT ATTENDANCES</b>	47	12.35
<b>DENTIST</b>	35	1.77
<b>OPTICIAN</b>	35	0.95
<b>SOCIAL WORKER</b>	26	6.31
<b>PRACTICE NURSE</b>	17	4.21
<b>INPATIENT STAY</b>	14	85.46
<b>DAY CENTRE</b>	9	29.33
<b>AUDIOLOGIST</b>	8	12.99
<b>PHYSIOTHERAPIST</b>	8	1.99
<b>GERIATRICIAN</b>	5	1.97
<b>DAY HOSPITAL</b>	3	78.21
<b>OCCUPATIONAL THERAPY</b>	3	1.74

Notes:

1. Key worker data were available for 303 residents.
  2. Excluding those who did not use the service. The figures reflect both the unit costs of services (see Appendix D) and the frequency of receipt.
  3. Those who received NHS chiropody treatment.
  4. Those who received private chiropody treatment.
- \* Uses a combination of the key worker and care plan data about service receipt.

*Table 29 Average costs of additional services and package costs per resident week*

£1994-5	INPATIENT AND OUTPATIENT COSTS	OTHER SERVICE COSTS	TOTAL ADDITIONAL SERVICE COSTS	TOTAL PACKAGE COSTS INCLUDING HOME COSTS
MEAN	5.56	9.65	15.21	278.25
MINIMUM	0.00	3.89	5.62	206.12
MAXIMUM	17.32	24.48	27.51	467.68

### ***Uncertainty in estimates***

Before considering the implications of these estimates it is important to be clear to what extent they represent the underlying opportunity cost and where there is a level of uncertainty. When describing the methodology above it was identified that in most areas of public expenditure a discount rate of 6 per cent rather than 8 per cent is used. The estimate of capital cost shown in Table 27 is 30 per cent higher than it would have been had a 6 per cent discount rate been used. However, the overall effect on establishment unit costs is only of the order of two per cent.

For one home (home 5) the only information available about costs was budgetary rather than based on actual expenditure. It has been included above for the sake of completeness but excluded from the analyses below.

It was identified above and illustrated in Table 28 that the information about service receipt was inconsistent from different sources. It is probable that some sources are better than others at keeping track of different types of service receipt. Overall it is probable that there is an underestimate of the level of services received as respondents and care plans are more likely to omit mention of a service than to exaggerate the frequency of service receipt. With these reservations in mind there are clearly considerable variations in the cost estimates and it is of interest to explore these as far as the limitations of the data set allow.

### ***Causes of cost variation***

Expected causes of cost variation include variations in who is being cared for, under what market conditions and how it is being produced and what is being produced (Netten, 1994).

### ***Who is being cared for***

To allow for who is being cared for we should ideally adjust for levels of dependency among residents. This is possible when the data set is large enough or the relationship between causes of variation and costs are sufficiently well determined. Neither of these conditions are met here. The

data were explored in order to see whether the homes formed any clusters in terms of dependency characteristics but no obvious groupings emerged. Those few homes which appeared to have lower levels of dependency overall did not have consistently lower costs.

### ***Market conditions***

Some adjustments have been made for known variations in market conditions but there may be local factors for which we have no information. There are insufficient homes to pursue this issue which has been discussed in detail elsewhere (Forder, 1995).

### ***How care is produced***

The underlying 'technology of care' (the relationship between inputs and outputs) varies most clearly between sectors of provision. Conditions of service for staff and ways of organising care have resulted in local authority provision typically costing more than voluntary provision which in turn costs more than private provision. This long established pattern (see Netten, 1994) is reflected in the homes in the study. On average the local authority homes cost £282 per week per resident; the housing association homes £247 per week; and the private homes £208 per week.

A very different pattern emerges, however, when additional services are considered. Although there were no significant differences between sectors when inpatient and outpatient services were included residents in privately run homes incurred significantly higher additional service costs once hospital services were excluded (£15 per week compared with £6.88 per week;  $p < 0.001$ ). Overall these services resulted in an additional eight per cent on revenue costs compared with three per cent for other providers. The difference was attributable to the consumption of community health service costs (£12 per week compared with £4.38 per week;  $p < 0.001$ ). There was no significant difference in the costs borne by local authorities or by residents themselves.

### ***What is being produced***

There are two types of output: intermediate, reflected in level and type of activity; and final, reflected in outcomes for residents. It is not possible to consider the latter here. The process of estimation allowed for some intermediate outputs by ensuring activities other than those associated with residents were not included in the costs. One type of activity could not be separated out in this way: the provision of short term care.

The level of input required by newly admitted residents, and the lower levels of occupancy associated with high turnover, mean that higher costs would be expected to be associated with the provision of short term care. In the sample, three of the homes for which there were valid data were increasing the levels of short term care. The average costs of these homes (excluding additional services) was £346 per week compared to £234 among other homes. All of these homes were local authority-managed.



This is the most marked difference in home costs and reflects the national picture. In recent years there has been a noticeable increase in the unit costs of local authority care which has been attributed in part to changes in the use of local authority homes (Netten and Dennett, 1996, forthcoming). There is a growth in demand for short-term care as part of the policy of supporting carers. But this is a service the independent sector is often reluctant to provide - partly because of the high costs and problems of predicting demand. The result has been a rise in the use of local authority homes for short term care and at a time when there has also been a rise in unit costs. Some of the increase in unit costs of local authority care may be due to this, but a larger study is needed to confirm how important this effect is.

The principal focus of the study is quality of care and quality of life for residents. Using the mean ranking taking into consideration the frequency with which homes appeared in top rankings as discussed in chapter 7 four homes were identified as performing consistently well across the ranking analysis (homes 10, 15, 16 and 17). None of these are local authority managed and none provide short term care. It is not unexpected therefore that on a simple comparison with other homes there do not appear to be any cost associations with the provision of higher quality care. These homes cost on average £225 per week compared with an average cost of £265 in the other homes. Additional services cost £12 in the higher ranking homes and £15 per week in the other homes (not a statistically significant difference).

The homes that were ranked high in terms of measures of satisfaction (see chapter 7) had very similar average costs to other homes (£257 and £251 per week respectively). Residents in those homes where levels of satisfaction were lower received more additional services from outside the home than residents in homes with higher levels of satisfaction (£17 per week and £9 per week respectively;  $p < .05$ ). The difference was even more marked when inpatient and outpatient services were not included (£11 and £4 per week;  $p < 0.01$ ).

Those homes rated highly by researchers cost £249 on average per week, compared with £266 per week for other homes. As with the ranking of homes in terms of satisfaction, residents in those homes which the researchers ranked lower received more costly outside services (£18 per week, compared with £11 per week;  $p < 0.05$ ). Excluding inpatient and outpatient services, the costs of services outside the homes were £11 and £6 per week ( $p < 0.01$ ).

Ideally multivariate analysis would allow for other reasons for cost variation, allowing us to investigate separately any quality implications. This is not possible here but the results reported above do provide some hypotheses for future work.

### ***Conclusion***

Residential care is a very costly form of care. As such costs are of considerable interest, particularly to those who are concerned with obtaining value for money. The extent to which a study of this kind can throw light on factors affecting the costs of residential care is necessarily limited. Nevertheless establishing the comprehensive costs of the care contributes another dimension to the evaluation.

The methodology was designed to identify as closely as possible the long term opportunity cost of providing care in the sample homes. Costs were measured

comprehensively, including the costs incurred by residents and other agencies for services consumed but not provided by the home. Adjustments to estimates were made to ensure that as far as possible like was being compared with like. Expected causes of cost variation were investigated within the limitations of the data set. The well established relationship between sector of provision and cost was evident with local authority provision incurring the highest unit costs and private homes the lowest. It was noticeable, however, that local authority homes were more likely to be providing short term care which is associated with higher unit costs.

Perhaps the most interesting finding was the relatively high level of consumption of community health service costs by residents in private homes. If this is an indicator of high quality private provision (three of the four private homes were identified as high ranking homes) then there are long term implications for the consumption of community health services of the shift to the use of the private sector in publicly funded residential care. This would seem a useful hypothesis to be tested on larger data sets which allow for multi-variate analysis.

## 9. Further analysis

We can say with confidence that some homes performed consistently better than others on our range of instrumentation. Relatives' and visitors' opinions were not good predictors of this performance, which suggests that it is vital to take both subjective and objective measures in evaluating quality, and that consumer views need to be interpreted in the light of contextual information about the home. Our quasi-inspectors, the researchers, confirmed the finding of previous research that consistency in outsiders' assessments is rare.

On such a multi-dimensional concept as quality, some consensus on tools for assessment is desirable, since comparisons between homes must be made by a range of persons. These tools ought to be comprehensive, valid and founded on evidence of good outcomes. The 25 variables included our final analysis go some way towards meeting these criteria; they have face validity and they cover a broad range of dimensions of care. Many of the tools used have been tested in previous research, and some new ones devised for this study show considerable promise, including those developed to measure health needs, evaluate care plans and study activity in homes. Therefore they are recommended for further application and testing.

An extension of the study reported above followed-up the 300 residents in the original sample, interviewed managers and invited staff to complete questionnaires, including the Sheltered Care Environment Scale (SCES). The aim of phase II was to relate residents' dependency over time to initial assessments of the homes' overall quality.

Meanwhile, further analysis of data collected in phase I demonstrated that residents had lower levels of depression if their physical health needs were met. This association between physical and psychological well-being has implications for care in homes, staff training and monitoring of quality.

Twenty-nine per cent of the residents interviewed at time one had moved on; most (19%) were known to have died and the rest had been admitted to hospital or nursing care. Staff turnover was 23% on average (range 13% - 36%).

Phase II found that over an average of 16 months the level of dependency measured by CAPE had risen from 'medium' to 'high', for those people in the study sample. Initial CAPE score and time between interviews explained most of this change, and the assessed quality of the home at time one was only marginally significant ( $p = 0.11$ ).

This study also found that the environment in some homes was more stable, but that instability reflected improvements more often than deterioration, at least as measured by the SCES. Within the SCES, the sub-scales indicating

self-disclosure and resident influence were more stable over time than those measuring conflict, physical comfort, independence, cohesion and organisation. Four homes were ranked highly on the interview with managers. Only one of these appeared consistently among the higher-ranked homes on the SCES at time 2.

Further details about phase II can be found in Discussion Paper 1304, Personal Social Services research Unit, University of Kent at Canterbury (Schneider et al., March, 1997).

## 10. Policy implications and concluding remarks

Policy concerning residential care directly touches the lives of many people: residents, relatives, staff, owners and inspectors, who amount, all together, to a high proportion of the population. We assume, in addition, that some of our findings will be relevant also to nursing homes and the people concerned with nursing care. The implications drawn from this study adopt the perspective of those in a position to influence the development and regulation of homes for elderly people, whether they operate within the statutory, voluntary or private sectors.

1. ***Residential care is fast becoming dementia care.*** The finding that 79 per cent of the people studied had some level of dementia, and that 37 per cent were severely affected, indicates the high level of dependency in residential homes. This was echoed by comments from staff and relatives. Resources for this task need to be sufficient in quantity (staffing levels, aids and adaptations) and appropriate in quality (staff training, behavioural interventions, suitable medication and measures to protect the interests of people who may not be able to express themselves easily).
2. ***The appropriate use of medication in homes is an issue for further investigation.*** For example, we found that sedative drugs were sometimes used for people with dementia, and these can be a substitute for more humane but labour-intensive psychosocial approaches.
3. ***Brief instruments to screen residents for depression should be administered routinely in homes.*** Of those residents assessed for depression, 40 per cent were clinically depressed, and 30 per cent said that they 'wanted to die'. In any home, no more than one third of those affected by depression were being given suitable medication. This finding confirms earlier evidence of widespread neglect of the psychological well-being of residents, despite the treatability of depression in elderly people.
4. ***Inspectorates should include health professionals.*** We found that on average responses were poor to common problems of immobility, instability, hearing and vision. This may indicate training requirements. It also suggests that inspectors should be able to assess prescribing patterns in the home, as well as the appropriateness of responses to physical and psychological needs.
5. ***Psychological well-being is closely associated with physical care.*** Individual residents, for whom responses to the four common problems were rated as 'good' had a significantly lower depression score than those residents whose physical care was rated as 'poor' or 'neutral'.
6. ***Audit or monitoring of care plans should form part of inspections and evaluations.*** In care plans, the emotional and cultural needs of residents were given less attention than the social and physical needs. While care plans cannot guarantee optimal responses to needs, they should help to

ensure continuity and consistency between the large number of staff who work in each home. The variability in the completeness and recency of care plans indicates that this administrative safeguard may be overlooked.

7. ***The provision of activities for people with dementia will be critical to the quality of care in homes.*** More activities in homes were desired by residents, staff and visitors, but only one home had an activities organiser.
8. ***The development of methods for eliciting visitors' knowledge about homes, would enhance assessments of quality of care.*** Fifty-seven per cent of the visitors had been the resident's primary carer before admission, and 44 per cent went to the home at least once per week. They were involved in the care of residents and had clear views about the homes. However, it is difficult to elicit criticisms from visitors; they may feel reticence, fear of retribution affecting the resident, and guilt about the admission.
9. ***Any home which is not actively training staff must give cause for concern.*** Of the 500 staff working in the 17 homes studied, fewer than 30 (0.06%) were professionally qualified. Although our sample of homes was not representative, in three homes no member of staff had any formal qualifications. The task of training and retraining homes staff is overwhelming, and since this usually falls to heads of homes it may often make way for urgent managerial demands. The pursuit of National Vocational Qualifications may represent a significant boost to the training of homes staff.
10. ***There is an urgent requirement for health care training for homes staff.*** We found a dilution of professionally qualified staff, and evidence that key workers were not sufficiently aware of health care needs. Despite high levels of dependency in residents, few homes had senior staff with nursing qualifications. Proper preventive measures and rehabilitation of residents could postpone the need for nursing home care. In some places, primary health care personnel may play an important role in homes, but the clustering of residential homes in certain resort areas may pose a burden for primary care.
11. ***The impact of residential homes on general practitioners and other primary health care services may need to be taken into account in funding health services.*** Local authority provision cost more than voluntary provision which in turn cost more than private provision, a typical pattern. However, in privately-run homes significantly higher additional service costs were incurred, and these were attributable to the consumption of community health service costs.
12. ***Apparent savings from purchasing long-term care in the private sector may need to be offset by the increasing costs generated if local authorities retain and increase the level of short-term provision.*** Higher costs were associated with local authority homes. In the sample, three of the homes (all local authority-run) were increasing the levels of short term care. The average costs of these homes (excluding additional services) was £346 per week compared to £234 among other homes.
13. ***Homes which consistently performed better on our indicators did not have significantly higher overall costs than those which performed less well.*** As in other studies no relationship was found between quality and the

overall costs of care. This is not surprising in the light of the relationships between costs and other factors. The homes which were ranked highly were neither local authority-run nor providing primarily short-term care.

### *Concluding remarks*

The information presented here highlights numerous issues in assessing quality of residential care. It reinforces previous findings concerning the prevalence of dementia and depression in residential settings. It provides a profile of typical current care practice. By applying a broad range of instrumentation, it tells us something about the feasibility, reliability and sensitivity of these methods. The study thus extends our understanding of the dimensions of quality in residential care for elderly people and of how these dimensions may be measured.

### *Instruments*

Further work would need to be undertaken to validate the innovative measures generated by this research, but all those mentioned above show considerable promise. The Manager's Questionnaire is based on extensive work with homes' staff and managers, so its questions have clear relevance in evaluating quality. The health needs matrix represents an attempt to rectify the lack of reliable and simple measures of need in a frail and demented population. The care plan evaluation approach could be used in auditing documentation in a range of settings, while data about staffing, medication and relatives' views can be collected in a number of ways. A characteristic of this study was the effort put into obtaining data direct from residents, regardless of their level of disability. The interviewers found that some information could be gleaned from almost all residents. This is vital if a fair balance between objective and subjective viewpoints is to be attained, and service users' opinions are to be given the priority they are accorded in health and social care policy.

### *Study extension*

This study and its extension have shown that certain measures of the home environment do not appear to be very consistent over time. Rather, they are probably sensitive to changes in the home which are inevitable. The research into measures of quality of residential care indicates that, in order to reduce depression in elderly residents, greater attention might fruitfully be paid to their health problems. It also suggests that, given low levels of formal staff qualifications and high staff turnover, training ought to be promoted, and renewed continually.

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