

The Influence of Individual Characteristics in the Reporting of Home Care Service Quality by Service Users

Sima Sandhu, Andrew Bebbington, Ann Netten, Personal Social Services Research Unit, University of Kent.

Abstract

In recent years, increased emphasis has been placed on consulting, involving and informing service users. A national survey in 2003 indicated that reported levels of satisfaction with services were associated with individual home care service users' characteristics. The aim of the case study presented here was to investigate further the association between individual service user and need-related characteristics in judgements of service quality, within one local authority. Reported service quality was assessed using a measure based on items in an extended version of the 2003 User Experience Survey (UES). Additional data about service users were sought from commissioning databases and client case records. Multivariate analysis indicated a relationship between service user and need-related characteristics in the reporting of service user satisfaction. Judgements of service satisfaction were not influenced by demographic characteristics alone, but by a complex interaction between individual characteristics, situational factors, dependency characteristics and structure of the care package. This case study suggests possible explanations for individual variation in the reporting of service satisfaction based on the interplay between expectations and experience.

Keywords

Home care, service standards, quality assurance, user views, case study, statistical methods.

Introduction

Good quality home care services should promote greater independence and control, both central outcomes for social care (Department of Health, 2005). Since the introduction of the *Best Value* regime, which provided clear performance targets and indicators for improving both the quality and efficiency of providing community-based care (Secretary of State for Health, 1998) several policies have endorsed high quality care within home care services and standards for maintaining them. These policies included the introduction of regulations for agencies providing domiciliary care (Department

of Health, 2002) and the introduction of National Minimum Standards (NMS) for domiciliary care (Department of Health, 2003a), which have set out a number of requirements home care service providers must meet to become and remain registered.

A crucial component in assessing what constitutes a good quality service is the views of those in receipt of that service. The importance of service user views at all levels of planning and practice is reflected in wider government policy. Since the *National Health Service and Community Care Act* (1990) made service user consultation a legislative duty, emphasis has been placed on

informing and involving the users of health and social services (Department of Health, 1990; Social Services Inspectorate/Scottish Office Social Work Services Group, 1991). Active community and user involvement in the development of services was detailed and enforced in the government's Best Value directives (Secretary of State for Health, 1998). In 2003, *Strengthening Accountability* was published as policy guidance for the implementation of Section 11 of the Health and Social Care Act, which stated the duty on managements to involve service users and the public in planning and decision-making processes that affect services (Department of Health, 2003b). All Councils with Social Service Responsibilities (CSSR) are now required to undertake regular user experience surveys (UES). Client satisfaction surveys are one of several Best Value service specific surveys.

In 2002-2003 all councils were required to conduct a UES of older users of home care services. A full questionnaire was developed for this purpose (Qureshi & Rowlands, 2004), but only four questions from this were compulsory for CSSRs to include in their surveys. These four questions focused on:

- general satisfaction;
- whether social services check that users are satisfied with their service;
- whether care workers come to visit at suitable times; and
- whether changes asked for in the help they receive are made.

These compulsory questions were used to feed into performance indicators (PIs) of quality of home care, two of which were regarded as Best Value performance indicators.

There is controversy over the use of service user satisfaction as a valid outcome indicator. There are methodological concerns such as the tendency for respondents to gravitate towards positive results and the influence of factors outside of the service received (Blenkiron & Hammill, 2003; Kahn *et al.*, 2003). However, careful interpretation and recognition of the obvious methodological limitations can pave the way to addressing these concerns (Netten *et al.*, 2004). Moreover, service users present a different perspective and place different values on outcomes, than health and social care professionals and service providers (Geron *et al.*, 2000).

Evidence about the perspective of service users in monitoring the quality of care services has consistently indicated that not all service users are equally satisfied with their care services (Bainbridge & Ricketts, 2003). Previous findings at a national level have indicated that variations in service user satisfaction are likely to be attributed to a combination of complex interactions between the individual receiving the home care and those providing the home care (Jones *et al.*, forthcoming; Netten *et al.*, 2004; Netten *et al.*, forthcoming).

It is important when interpreting performance indicators based on user views that we understand the influence individual characteristics have on judgements of quality in health and social care assessments. The Commission for Health Improvement (now the Healthcare Commission) identified the direct impact individual factors have on the reported experience of patients. Patients from Black and minority ethnic backgrounds reported poorer experiences of health services than their white British and Irish counterparts. Variations in the experience of patients were also reported

in terms of their age, gender, educational status and self-reported health status, among other individual factors (Commission for Health Improvement, 2004). Similar findings have also been mirrored in a national survey of older people in receipt of home care services, individual factors significantly influenced variation in perceptions of quality. Individual factors such as age, gender, and hours of home care received influenced reported levels of service satisfaction (Francis & Netten, 2004; Netten *et al.*, 2004).

Variations in service satisfaction by demographic characteristics are likely to be a consequence of associations with other individual characteristics, such as level of need and access to services. The combination of these characteristics could influence the perceptions held by certain demographic groups when reporting service satisfaction, for example a service user with a high level of need and no informal care may report higher levels of service satisfaction, concerned that they may lose a service they are greatly dependent on if they report otherwise. It is difficult to identify causation in the association between demographic groups and reported service satisfaction. Differences in reported satisfaction may be attributed to certain groups of service users actually receiving a poorer or different service. Alternatively, a difference in response to service satisfaction may be influenced by certain demographic groups holding expectations from their service, which are likely to cause a disparity in the reported level of service satisfaction based on cultural and social norms.

The aim of the present study was to understand further the factors influencing individual variation in service users' satisfaction with their home care service. To gain a more in

depth localised view of the influential factors, a case study was conducted within a local authority that participated in the PSSRU extended version of the older people's UES in 2002-2003 (Netten *et al.* 2004).

Method

The local authority selected for this case study was a metropolitan authority situated in the North West of England. The population within this authority was predominately white (95 per cent), unemployment rate was higher than the national average at five per cent and the proportion of the local population in the top occupational groups ranked as one of the lowest in the country (Office for National Statistics, 2005). The selected sample was based on the 439 respondents from the PSSRU User Experience Survey (UES) Extension (Netten *at al.*, 2004) for whom information was available in commissioning databases and client case records. The sample contained clients who represented all the major home care providers and covered all the main geographical areas within the local authority.

Service user characteristics

Representatives from the local authority assisted in the collating of data relating to individual characteristics of the service users who participated in the UES. Home care commissioning databases provided information relevant to the volume and content of individual home care packages. Local authority case records supplied the additional individual level information required. This information was primarily collated from three sources within the case notes; cover sheets, the assessment information including subsequent updated reviews and the resultant care plans. Information gathered included:

- demographic information regarding the service users' age, gender, and housing situation;
- service users' needs and dependency characteristics, information relating to specific health care needs, such as having dementia, incontinence, a limiting long-term illness, or having recently been discharged from hospital;
- the assessed need priority rating used by the local authority (before introduction of the Fair Access to Care eligibility criteria) to rate level of need from low to critical;
- level of need and risk factors relating to daily activities that could not be done without assistance, for example bathing, dressing, or mobility;
- family and other unpaid (so called 'informal') care; and
- other services, such as meals on wheels and day care.

Qualitative data relating to the tasks commissioned on the care plans were grouped into four categories and coded, based on the category the commissioned home care task belonged to:

- *Sitting or night sitting*, including allotted visits, where no specific task was defined and home care workers are required to watch over the client and provide a sitting service.
- *Management of disability*, including tasks specific to management of a disability, such as assisting with medication, changing surgical stockings, and emptying and changing catheter bags.
- *Personal care*, including tasks that involve assisting in the

maintenance of good daily personal care, such as assisting the client with feeding, washing, dressing, moving to and from a bed or chair, and moving around the home and outside.

- *Domestic support*, including tasks involving assistance with normal housework, shopping, laundry, collecting pension, dealing with correspondence and bills.

Service quality

Service quality information was based on responses to the UES Extension Study (Netten *et al.*, 2004). One of the main aims of the study was to explore the constructs underlying home care quality. Factor analysis identified a service quality indicator that reflected service users' views on the standard of home care delivered on a day-to-day basis, such as whether the care worker arrived on time and at times that suit the service user. It also represented those elements of care that were reliant on the policies and practices of the organisation delivering the service, such as service users being kept informed about changes in care (Netten *et al.*, 2004). The reliability for the service quality indicator was high (Cronbach's alpha = 0.81) and the eigenvalue was 2.79. Possible scores ranged from zero to a maximum of eight for this indicator, with a local authority mean score of 3.67 (standard deviation = 2.56).

To investigate the relationship between reported service quality and individual service user and need-related characteristics, analyses were conducted to explore the straightforward relationships between service user and need-related characteristics and perceived service quality. Multivariate analyses were used to investigate the inter-relationships between service user and need-related characteristics, with regards to reported service quality, in

order to determine the proportion of variation in reported service quality that could be accounted for by these individual characteristics.

Results

Data were available for 214 service users whose individual case notes and User Experience Survey data were obtainable. The mean age for this sample was 85 years old (Mean=85.36, SD =7.69) at the time of the survey. Of these clients, 166 were women and the remaining 48 were men. The majority of the service users' priority of need was considered critical or substantial (69 per cent), less than a third of service users were considered moderate or low priority (31 per cent).

Client care packages predominately consisted of Personal Care (84 per cent) and Domestic Support tasks (84 per cent). Just over half of the service users also received home care for Management of a Disability (55 per cent) and only 2 per cent of service users received commissioned home care tasks by Sitting or Night Sitting. Substitute services, outside of the role of the home care worker, featured in less than a fifth of service users' care packages, 18 per cent of service users received meals on wheels, 18 per cent received visits from a district/community nurse and 16 per cent attended some form of day care service.

High scores for the service quality dimension were indicative of greater service user satisfaction with the service performance they received. No significant differences were found for service quality at the home care provider level or at the geographical area level.

Variation in service quality was examined at the individual service user

level. There was no significant association between service quality and the broad task categories of Personal Care, Domestic Care, Management of Disability and Sitting or Night Sitting. Differences in service quality were investigated at the specific task and characteristic level, using univariate analyses. Variables with a suspected difference between mean scores (*t*-test statistic greater than 1) were compared for significant differences on the service quality measure. The means for these variables are shown in Table 1.

Service quality significantly differed between those needing assistance to bath or shower and those that did not ($t(186) = 2.133, p < .05$), with those needing assistance to bath or shower reporting higher service quality. Service quality also significantly differed between service users in receipt of a teatime visit and those that did not receive a teatime visit ($t(160) = -2.245, p < .05$), with those not in receipt of a teatime visit reporting higher service quality.

It was clear from the univariate analyses that relationships between service user and need-related characteristics and service quality were not straightforward associations. Multivariate analyses explored interactions between receipt of a teatime visit, assistance to bath and other need-related characteristics, which accounted for 25.8 per cent of the variance in service quality ($F(8,147) = 6.057, p = .000$). See Table 2 below for the full regression model for service quality.

Table 1: Mean scores for service user characteristics

Service user characteristics	Service Quality	
	Mean	N
Personal characteristics		
<i>Gender</i>		
Male	2.80	41
Female	3.61	149
<i>Home ownership</i>		
Owned	3.7	92
Rented	3.15	105
<i>Priority of need rating</i>		
Low/moderate	3.72	57
Critical substantial	3.22	125
<i>Limiting long-term illness</i>		
Has long-term illness	3.67	112
Does not have long-term illness	3.10	78
<i>Receipt of family and other unpaid care</i>		
No family/unpaid care	3.77	84
Receives family/unpaid care	3.15	105
Service related characteristics		
<i>Assistance with transfer to bed or chair</i>		
Transfers self	3.65	119
Transfers with assistance	3.06	70
<i>Assistance to wash face and hands</i>		
Washes self	3.66	76
Washes with assistance	3.27	113
<i>Assistance with bath or shower</i>		
Bathes or showers self	2.61*	38
Bathes or showers with assistance	3.59	148
<i>Visit at teatime</i>		
No visit at teatime	3.78*	93
Receives a teatime visit	2.87	67

*Significance level: $p < 0.05$

Second, a positive statistically significant association existed between service users receiving assistance with bathing/strip washing and service quality, but only if the service user could self transfer and self dress. This suggested that service users who only received a bathing service were more satisfied with their service, than those who self bathed, or received assistance to dress or transfer themselves.

Third, there was a statistically significant negative association between service quality and males receiving informal care. This indicated that that male service users receiving informal care from whatever source were more likely to be dissatisfied with their service, than female service users, or service users not receiving any informal care.

Table 2: Regression model for service quality

Service user characteristics	Standardized coefficients	T-statistic	Significance
Personal characteristics			
High priority and no limiting long term illness	-0.213	-2.874	0.005
Home owner and receiving >5 hours home care per week	0.181	2.428	0.016
Male and receiving family or unpaid care	-0.279	-3.631	0.000
Aged 85 or over	-0.146	-1.960	0.052
Risk of falls	0.155	2.061	0.046
Service related characteristics			
Bathing service	-0.263	3.455	0.001
Teatime visit	-0.200	-2.565	0.011
Assistance to wash face and hands	-0.104	-1.336	0.184
Number of service users with complete data	147		
Adjusted R-squared	0.216		

Fourth, a positive correlation reaching statistically significance existed between service quality and homeowners if they were receiving less than five hours home care per week. Service users who owned their own homes and were in receipt of less than five hours of home care per week, were more satisfied with their home care service, than service users who did not own their own homes, or were in receipt of more than five hours of home care per week.

A positive statistically significant correlation was noted between service quality and risk of falls. Indicating that those service users considered at risk of having falls were more satisfied with their home care service, than those not considered at risk of having falls.

A statistically significant negative correlation was also identified between service quality and receipt of a teatime visit, suggesting that those service users in receipt of a teatime visit were more dissatisfied with their home care service, than those not receiving a teatime visit.

In particular, those service users in receipt of a teatime visit were significantly more likely to report that their care workers didn't come at times that suit (77 per cent), did not arrive on time (73 per cent), spent less time than they should (73 per cent) and were in a rush (78 per cent), than service users not in receipt of teatime visits.

Negative associations were identified between service quality and older service users, and between service quality and assistance required to wash face and hands. Although these associations did not quite reach the $p < 0.05$ level of significance, they did improve the explanatory power of the model.

Discussion

Previous work has identified an association between individual service user characteristics and reporting satisfaction with services (Commission for Health Improvement, 2004; Netten *et al.*, 2004). The current case study

endeavoured to examine the factors likely to influence the way in which a service user interprets their experience, and therefore their satisfaction, with their home care service. The relationship between reported service quality and the speculated factors likely to influence individual responses, are discussed using the key findings from this particular case study to illustrate the points. However, it is important to note findings from this case study was limited to one local authority and information was only collated at the individual service user level and not the provider level, which may factor into variation in service quality. In addition, most of the information was obtained from service user paper records, which were often completed in an inconsistent manner depending on who entered the information and when the information was entered.

Individual differences in reported service satisfaction could be attributed to a genuine difference in the services received within the structure of the care plan. The method or timing in which particular tasks are carried out could differ, leading to a different experience of that task and therefore the service as a whole. For example, higher service quality was reported among service users in receipt of bathing assistance, but who did not receive assistance to dress or transfer. A high proportion of these service users lived in sheltered accommodation, as opposed to living in their own homes, they received informal care from multiple family members and received meals on wheels. Outside of the care provided by home care workers, in a majority of cases, home care and support came from family members and substitute services. It is likely that these service users were in receipt of just a bathing service, or that the bathing service formed the main part of their commissioned care. High satisfaction

with this particular task could influence a higher level of satisfaction with the service provided as a whole. Service users may even prefer an outsider or someone they regard as a professional, without a personal relationship to them, to assist them in this particular task.

Equally, a negative experience of a particular task in service users' care plans could influence them to report generally lower levels of satisfaction with their home care service. An interesting finding arose, regarding lower reported service quality among service users in receipt of teatime visits. The dissatisfaction within the service quality measure was reflected through the items on the time care workers actually spend with them. Teatime visits were usually the last visit of the day for care workers, as a result service users may have experienced their care workers as being in a rush to get home after the last visit, or that delays early on in the day for the care worker result in a late arrival to the final visit of the day, the teatime visit. Evening and weekend visits are usually more difficult to staff, so the service user may not always receive a teatime visit at a time that suits them. Certainly, the dissatisfaction appeared to be with the timing of teatime visits and this may present as a general dissatisfaction with their home care service.

Different experiences of home care services may arise for a number of reasons, some lying with those providing the service and some lying with those receiving the service, most likely a combination of the two. An example of this was found in service users with relatively high priority ratings, but no limiting long-term illness reporting less satisfaction with their home care service. Service users in this group had a higher than expected incidence of behavioural problems, confusion and/or

incontinence. The inconsistency and unpredictability of behavioural problems, confusion and incontinence may affect the way services are provided. For example, care workers may not have the appropriate training or skills to carry out tasks in a specialised way that will be able to cope with the complexities of behavioural problems. Lack of understanding on how to communicate and manage service users with behavioural difficulties may inhibit the extent to which service user needs can be met. Lack of understanding from the service provider's perspective could result in a different experience of services from the perspective of those using them.

Likewise, a lack of understanding or acceptance of the role of the home care service, from the service user perspective, could also result in dissatisfaction. Service user preferences and expectations based on what an individual is familiar with and considers being the norm may not be possible to meet through conventional home care services. For instance, males receiving informal care were more likely to be dissatisfied with service quality than female service users, or service users not receiving any informal care. Men receiving informal care lived in their own home, as opposed to sheltered accommodation and were being treated for a limiting long-term illness. They were in most cases living with their spouse and received informal care from their spouse. Such service users may feel that their experience of home care services should be provided in the same manner and structure as the informal care received, or even by the informal carers themselves instead of home care workers, this could possibly explain relatively lower satisfaction among this group. Expectations of care workers' roles are likely to be based on what the service user has come to expect from

informal carers. The possibility exists that if these expectations are felt to have been unfilled, a service user may feel dissatisfied with their service consequently.

The way a service user responds to questions about their satisfaction with their service, and therefore their interpretation of their experience, could also be influenced by their dependent relationship with their home care provider. Service users are less likely to make complaints and are more likely to show gratitude in dependency, to prevent having services withdrawn (Beresford *et al.*, 2005; House of Commons Health Committee, 2004). Reporting of higher service quality was associated with service users who were considered most at risk of having falls. Reported higher levels of service quality could be indicative of the importance placed on home care services, when the need for assistance was greater. Service users at risk of having falls are possibly more likely to be positive about a service that helps them to get around safely and remain in their home, as the need for that service is greater than those not at risk of having falls.

Similarly, if a service allows the service user to remain cared for in their own home and still remain relatively independent, the concern that reporting dissatisfaction with the service could perpetuate withdrawal of this service, is likely to influence service users to not complain and instead report services in a more positive light. This could explain the incidence of higher reported service quality among service users that were homeowners and received less than five hours home care per week. Service users receiving less than five hours per week were considered at the lower level of service input. Therefore, they may feel anxious that their services could be withdrawn and report higher levels of

satisfaction with the service received to ensure that service volume is maintained. In particular, homeowners maybe concerned that the alternative to home care services would be institutional care, which may involve losing their own home. Older homeowners tend to perceive themselves as independent, in control of their own home and financially secure (Askham *et al.*, 1999), this particular group of service users may generally be more satisfied with a smaller home care package as it allows greater independence and more unassisted time in their own homes. Concerns about losing control and independence could affect their tendency to respond to satisfaction surveys more positively.

Although the explanatory power of the model presented here was relatively low, this was understandable for a model that intended to examine variation in service quality based on individual service user level factors alone. However, this model illustrates well the complex relationship between individual characteristics, situational factors, dependency characteristics, and care package that influences the way in which service users perceive their home care service. Recognition of individual differences, and circumstances, as well as the more obvious need-related assessment criterion, should be considered when composing and assessing a home care package for a particular service user. Judgements of satisfaction are subjective and relative to the service users' expectations and perceptions, which are likely to be rooted in their own circumstances and characteristics. Certain relationships that emerged from the model between service quality and service user characteristics require further qualitative analyses to fully explore the complexities behind reported levels of satisfaction.

References

- Askham, J., Nelson, H., Tinker, A. & Hancock, R. (1999). *To Have and to Hold: The Bond Between Older People and the Homes they Own*. York: York Publishing Services.
- Bainbridge, I. & Ricketts, A. (2003). *Improving Older People's Services: An Overview of Performance*. London: Social Services Inspectorate. <http://www.dh.gov.uk/assetRoot/04/06/95/05/04069505.pdf>.
- Beresford, P., Shamash, M., Forrest, V., Turner, M. & Branfield, F. (2005). *Developing Social Care: Service Users' Vision for Adult Support*. London: Social Care Institute for Excellence. <http://www.scie.org.uk/publications/reports/report07.pdf>.
- Blenkiron, P. & Hammill, C.A. (2003). What determines patients' satisfaction with their mental health care and quality of life? *Postgraduate Medical Journal*, 79 (932): 337-340.
- Commission for Health Improvement (2004). *Unpacking the Patients' Perspective: Variations in NHS Patient Experience in England*. London: Commission for Health Improvement. http://www.healthcarecommission.org.uk/_db/_documents/04003496.pdf.
- Department of Health (1990). *Caring for People: Community Care in the Next Decade and Beyond. Policy Guidance*. London: HMSO.
- Department of Health (2002). *Press Release 2002/0049: New Packages to Support Launch of National Minimum Standards for Care Services*. London: Department of Health. http://www.dh.gov.uk/PublicationsAndStatistics/PressReleases/PressReleasesNotices/fs/en?CONTENT_ID=4013053&chk=qd7qqH.
- Department of Health (2003a). *Domiciliary Care: National Minimum Standards*. London: Department of Health.

- <http://www.dh.gov.uk/assetRoot/04/01/86/71/04018671.pdf>.
- Department of Health (2003b). *Strengthening Accountability: Involving Patients and the Public. Policy guidance Section 11 of the Health and Social Care Act 2001*. London: Department of Health. <http://www.dh.gov.uk/assetRoot/04/03/53/87/04035387.pdf>.
- Department of Health (2005). *Independence, Well-being and Choice: Our Vision for the Future of Social Care for Adults in England, Cm 6499*. Norwich: TSO (The Stationery Office). <http://www.dh.gov.uk/assetRoot/04/10/64/78/04106478.pdf>.
- Francis, J. & Netten, A. (2004). Raising the quality of home care: a study of service users' views. *Social Policy and Administration*, 38 (3): 290-305.
- House of Commons Health Committee (2004). *Elder Abuse: Second Report of Session 2003-04 (Volume 1)*. London: The Stationery Office. <http://www.publications.parliament.uk/pa/cm200304/cmselect/cmhealth/111/11.pdf>
- Jones, K., Netten, A. & Francis, J. (forthcoming). Incorporating user experiences in performance monitoring of home care. *Health & Social Care in the Community*.
- Kahn, K.L., Liu, H., Adams, J.L., Chen, W.-P., Tisnado, D.M., Carlisle, D.M., Hays, R.D., Mangione, C.M. & Damberg, C.L. (2003). Methodological challenges associated with patient responses to follow-up longitudinal surveys regarding quality of care. *Health Services Research*, 38 (6, Part 1): 1579-1598.
- National Health Service and Community Care Act 1990*. London: HMSO. http://www.opsi.gov.uk/ACTS/acts1990/Ukpga_19900019_en_1.htm.
- Netten, A., Francis, J., Jones, K. & Bebbington, A. (2004). *PSSRU Discussion Paper 2104/3: Performance and Quality: User Experiences of Home Care Services*. Canterbury: Personal Social Services Research Unit. http://www.pssru.ac.uk/pdf/dp2104_3.pdf.
- Netten, A., Jones, K. & Sandhu, S. (forthcoming). Provider and care workforce influences on quality of home care services in England *Journal of Aging and Social Policy*.
- Office for National Statistics. *Census 2001*. <http://www.statistics.gov.uk/census2001/census2001.asp>. Accessed 21 August, 2006.
- Qureshi, H. & Rowlands, O. (2004). User satisfaction surveys and cognitive question testing in the public sector: the case of personal social services in England. *International Journal of Social Research Methodology*, 7 (4): 273-287.
- Secretary of State for Health (1998). *Modernising Social Services: Promoting Independence, Improving Protection, Raising Standards*. London: Stationery Office. <http://www.archive.official-documents.co.uk/document/cm41/4169/4169.htm>.
- Social Services Inspectorate/Scottish Office Social Work Services Group (1991). *Care Management and Assessment: Managers' Guide*. London: HMSO.

Notes on contributors

Sima Sandhu has a BSc in Psychology and MSc in Social Research Methods. Prior to joining the Personal Social Services Research Unit, Sima worked as a research assistant in psychology and as a home care support worker for service users with learning difficulties and mental health issues. Sima is currently a volunteer for East Kent NHS and Social Care Partnership Trust. Her research interests include health and social service quality and outcomes. Andrew Bebbington has a BSc in Statistics and an MSc in Economics. His research interests include the development of standard spending assessments, measuring and monitoring trends in need, and the provision and cost of social services. Ann Netten is Professor of Social Welfare at the University of Kent. She joined the Personal Social Services Research Unit in 1987 and has been director of the Kent branch of the Unit since November 2000. Her research interests include cost estimation and economic evaluation of health and social welfare interventions (including criminal justice), housing and care of older people, developing theoretical approaches to the evaluation of community care and measuring quality and outcomes in social care.

Address for correspondence

Sima Sandhu
Personal Social Services Research Unit
University of Kent
Canterbury
Kent
CT2 7NF
Email: s.sandhu@kent.ac.uk