joint improvement team

Evaluation of the Telecare Development Programme

Final Report

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Evaluation of the Telecare Development Programme

Final Report

SOPHIE BEALE, Senior Consultant
DIANA SANDERSON, Senior Associate Consultant
JEN KRUGER, Project Support Officer

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Executive Summary

E.1. INTRODUCTION

- Launched in August 2006, the National Telecare Development Programme (TDP) aims:
  - *"To help more people in Scotland live at home for longer, with safety and security, by promoting the use of telecare in Scotland through the provision of a development fund and associated support."*
- The TDP is expected to provide the foundation for telecare systems to become an integral part of community care services across Scotland.
- It is managed by the Scottish Government's Joint Improvement Team (JIT).
- JIT received just over £8 million in the summer of 2006 to help 32 Scottish Partnerships to develop telecare services during 2006-08.
- Nominal allocations to each Partnership were based on their populations and funds were distributed by JIT on receipt of satisfactory applications outlining Partnership intentions.
- The TDP has eight objectives, which are to:
  - Reduce the number of avoidable emergency admissions and readmissions to hospital;
  - Increase the speed of discharge from hospital once clinical need is met;
  - Reduce the use of care homes;
  - Improve the quality of life of users of telecare services;
  - Reduce the pressure on (informal) carers;
  - Extend the range of people assisted by telecare services in Scotland;
  - Achieve efficiencies (cash releasing or time releasing) from the investment in telecare;
  - Support effective procurement to ensure that telecare services grow as quickly as possible.
- A total of £6,832,312 was allocated to Partnerships during 2006/07 and 2007/08 to support the implementation of their telecare projects. Initially, Partnerships planned to implement a total of 73 projects, 51 of which were in operation at the end of March 2008.

E.2 EVALUATION OBJECTIVES

- York Health Economics Consortium (YHEC) was commissioned by JIT to evaluate the TDP during 2006-08.
- The three principal objectives of the evaluation were to:
  - Develop an overall monitoring and evaluation framework that is cost-effective and fit for purpose;
  - Assist local partnerships to identify and collect the information needed to undertake effective monitoring and evaluation;
  - Provide an evidence base at the conclusion of the project demonstrating both the extent of any efficiency gains to local partnerships from adopting telecare solutions and of specific benefits delivered to particular users, or groups of users of telecare services.

E.3 METHODOLOGY

- Several potential evaluation methodologies were explored.
- The selected approach used data provided by the Partnerships via Quarterly Returns designed by YHEC, which focused on monitoring progress and collecting data on a common set of outcomes and efficiencies.
- By focusing on measuring performance against the eight TDP objectives, the Quarterly Returns formed a key element of the external evaluation.
- Postal questionnaires were designed for and distributed to service users and informal carers to capture their views and experiences.
- In addition, five Partnerships were selected as case study sites, providing additional information via telephone interviews and site visits.

E.4 KEY FINDINGS – PERFORMANCE AGAINST OBJECTIVES

Some Caveats:

- Reported performance is that achieved during the initial/start-up phase of the TDP, when the concept of telecare was new to many Partnerships.
- Reported outcomes are those achieved up to 31 March 2008; many Partnerships have made considerable progress since then.
- The absence of a strong data collection, reporting and evaluation culture within most Partnerships may have contributed to the fact that many of them found some of the outcome and efficiency measures difficult to assess.
- Achievements to March 2008 against specific programme objectives varied considerably across Partnerships for many reasons, including the particular focus of local telecare projects and the speed with which they were implemented.

Reduce the number of avoidable admissions and readmissions to hospital:

- By the end of 2007/08, 18 Partnerships reported having avoided unplanned hospital admissions, with these savings being made across 22 projects;
- During this period it is estimated that the number of unplanned hospital admissions was reduced by 1,220 (and by 13,870 bed days);
- The main beneficiaries were older people.

Increase the speed of discharge from hospital once clinical need is met:

- By the end of 2007/08, 20 Partnerships reported having reduced the number of delayed discharges (used as a proxy for increasing the speed of discharge), with these savings being made across 21 projects;
- During this period it is estimated that the number of discharges facilitated by TDP funds was 517, with an accompanying saving of 5,668 bed days;
- The number of bed days saved for each facilitated discharge appears generally to be between 7 and 15 days;
- The main beneficiaries were older people.

Reduce the use of care homes:

- By the end of 2007/08, 23 Partnerships reported having avoided care home admissions, with these savings being made across 26 projects;
- During this period it is estimated that the number of care home admissions was reduced by 518 (and by 61,993 care home bed days);
- Over half of the beneficiaries were older people – telecare appears to have been particularly successful at preventing (or possibly just delaying) admission to a care home for people with dementia.

Improve the quality of life of users of telecare services:

- About three-fifths (60.5%) of questionnaire respondents felt that their current quality of life was either "a bit better" or "much better" than before they had their equipment; about a third (34.6%) thought that it had "stayed the same" and less than one-in-twenty (4.9%) respondents thought that it was worse;
- In terms of telecare's impact on specific aspects likely to affect users' quality of life:
  - Over half (55.2%) of the respondents felt that their health had not changed, whilst slightly more than half of the other respondents (comprising 27.1% of the total) thought that their health had improved;
  - Almost all (93.3%) respondents felt safer;
  - Over two-thirds (69.7%) felt more independent;
  - Very few (3.5%) felt lonelier;
  - Four-fifths (82.3%) either "disagreed" or "strongly disagreed" that they felt more anxious and stressed;
  - Most (87.2%) thought that their families now worried less about them;
  - About two-fifths (40.8%) felt that their equipment had not affected the amount of help they needed from their family, whilst about one-third (32.8%) felt that they needed less help.

Reduce the pressure on informal carers:

- A slightly higher proportion of respondents currently found their caring role either "quite stressful" or "very stressful" (46.5%) than found it "not really stressful" or "not at all stressful" (36.9%);
- About half (49.3%) of the respondents felt that they were "a bit less stressed than before" the installation of the telecare equipment and a quarter (25.0%) were "much less stressed than before" – therefore three-quarters (74.3%) of the respondents felt that telecare equipment has reduced the pressures on them by reducing their stress levels;
- Fewer than one-in-twenty (4.3%) felt that their stress levels had increased;
- Time spent with the cared for person had remained about the same for approximately three-quarters (73.0%) of the respondents, with similar proportions of the others spending more time and less time with the cared for person;
- The main reasons for changes in respondents' stress levels seemed, at least in part, to depend upon:
  - The characteristics and circumstances of the cared for person;
  - The type(s) of equipment installed;
  - The type of responder service.
- Carers generally felt that the equipment gave them peace of mind as they worried less (e.g. about falls);
- They felt that people with learning disabilities could enjoy greater independence and that the equipment could enable people with dementia to remain living in the community for longer;
- Even if stress levels had fallen, several respondents highlighted that caring can still be very demanding and stressful (especially if the client will not use their equipment);
- However, many carers were very positive about the telecare service and also very grateful for it.

Extend the range of people assisted by telecare services in Scotland:

- Most of the projects funded by the TDP have been designed with older people in mind and focus on extending and developing current telecare services;
- During 2007/08 there were 7,902 people in receipt of TDP-funded equipment;
- New clients were predominantly female (62.4%; sex unknown for 5.0% of clients), white (84.5%; ethnicity unknown for 13.8%); and aged over 65 (85%; age unknown for 5.3%);

- Although the majority (63.1%) of telecare recipients were classified as 'older people', new users came from a variety of client groups, including dementia, learning disability and physical disability (some of whom would also be aged 65 and above);
- The main reasons for providing telecare were to "Minimise client risk" and "Promote client independence" (80.2% of clients);
- The most frequently cited secondary reasons for providing telecare were also to "Minimise client risk" and to "Promote client independence" (57.0% of clients);
- Although the long-term reasons for providing telecare were more varied than the short-term reasons provided, "Minimise client risk" and "Promote client independence" still accounted for the reasons provided for almost a third (32.5%) of clients;
- Over a quarter (27.8%) of the long-term reasons for providing telecare were to "Prevent long-term admission to care home" and about an eighth (12.3%) were to "Reduce the risk of hospital admission/re-admission".

Table E.1: Achieve efficiencies from the programme investment in telecare

	Estimated monetary saving (£)	**Per cent of monetary saving (%)**
Increased speed of discharge from hospital	£1,731,944	15.5%
Reduced unplanned hospital admissions	£3,343,467	30.0%
Reduced care home admissions	£3,421,621	30.7%
Reduced nights of sleepover care purchased	£557,119	5.0%
Reduced home check visits	£1,796,039	16.1%
Locally identified efficiencies, namely reduced waking nights	£301,000	2.7%
TOTAL	**£11,151,190**	**100.0%**

Support effective procurement:

- JIT recommended that Partnerships should use the established National Framework Agreement with the NHS Purchasing and Supply Agency (PASA) to promote the effective procurement of telecare equipment by the Partnerships;
- Thirteen Partnerships used PASA for all purchases, four used it for some purchases, and 15 did not use it at all (though some of these used it indirectly);
- The main reason for not using the National Framework was the ability to purchase equipment more cheaply through alternative mechanisms;
- Those Partnerships that had used PASA had experienced relatively few problems with the system.

E.5 OTHER FINDINGS

- Based on the Quarterly Returns and the experiences of the case study sites:
  - In general, telecare initiatives have taken a long time to set up, particularly when the use of TDP funds involved introducing a completely new initiative rather than enhancements to an existing scheme;
  - A big contributing factor to the time taken to set up a telecare initiative is the time required to educate and change the working culture of the large number of people involved with working with older people and others who can benefit from telecare;
  - Having a dedicated telecare manager (or one with sufficient protected time) can facilitate the process;

- Having one or more local telecare 'Champions' working at a senior level helps to promote the concept to senior strategic and operational managers;
- An initial focus on providing telecare to significant numbers of users can help to give it a high profile within a Partnership;
- Smart houses (or other demonstration areas) provide a good means of showcasing the strengths of telecare equipment to stakeholders (including users and carers);
- Professional responder services are very popular with service users and carers;
- If such services are not feasible (e.g. in some rural areas), it is important that potential users are not excluded if they lack family or friends who can be contacted in an emergency; this may require arranging alternative responders for them (e.g. through arrangements with a local voluntary organisation or provider of home care services);
- Limited information is available on wider financial aspects of telecare initiatives; this may primarily be due to a lack of specific budgets for such services within Partnerships because the TDP monies are for capital purposes and the associated revenue monies are drawn from a variety of sources;
- Genuine Partnership working with regard to implementing telecare services has yet to be achieved on a consistent basis across all local Partnership areas, though this can be facilitated by a tradition of pooled or aligned budgets and established joint working practices across health and social care.

E.6 TELECARE BEYOND 2006-08

- The Scottish Government has confirmed further TDP funding for 2008-10.
- The monitoring framework and data collection tools developed during this period (with some refinements in the light of experience during 2007/08) continue to be used by JIT during 2008/09 and 2009/10 so that a more complete picture of the impact of the TDP can be gained.
- The impact should continue to build up during this period across all Partnerships.

E.7 CONCLUSIONS

- At the outset, the overall aim of the TDP was specified to be to help an additional 19,000 people to live at home for longer, within a context of over 75,000 people (including 9,000 with a diagnosis of dementia) being in receipt of telecare services across Scotland by 2010. It has subsequently been established by JIT that over 180,000 people are in receipt of a telecare service of some kind, although the specific number that have dementia is not known at present.
- By March 2008, over 6,700 people aged 65 and over had received telecare equipment packages funded through the TDP (some of whom had previously been receiving more basic telecare support without TDP funding).
- More generally, as previously noted, just over 7,900 people were in receipt of TDP-funded telecare packages by March 2008 (although again some of these were previously receiving more basic telecare support without TDP funding).
- The experiences of the Partnerships during 2006/07 and 2007/08 show that they have made a promising start.
- Telecare provides opportunities to promote independence and improve the quality of life of service users and carers.
- To date, older people (including those with dementia) have been the main beneficiaries of TDP funds.

- However, telecare equipment has also provided significant benefits to people with long-term physical conditions and learning disabilities.
- Telecare equipment offers considerable potential to reduce the use of care home beds and the numbers of home care check visits and sleepovers required.
- It also appears to have a beneficial impact on the use of acute hospital beds. However, it should be noted that it is intrinsically difficult to measure the extent to which telecare contributes to 'non-events'. Moreover, the achievement of such beneficial impacts may also require other community-based services to be available.
- Key future challenges for Partnerships include developing and sustaining appropriate responder services and identifying sources of future capital and revenue funding.
- Ongoing work is needed within Partnerships to promote the required culture changes and the changes in the ways of working that are necessary if telecare is to be widely adopted.
- A stronger culture of evaluation within Partnerships would promote the accountability of telecare services.

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The research team would like to thank everyone who has contributed to this evaluation for their time and commitment. This includes staff from the Joint Improvement Team at the Scottish Government and the Project Managers within the Partnerships and their colleagues (especially those who contributed to the often challenging task of collecting the required data). In particular, we wish to thank those associated with the case study Partnerships for their additional involvement and for arranging the visits by a member of the research team, which provided invaluable additional information and insights. Finally, we would like to thank all of the service users and their carers who have shared their views and experiences with us through the postal questionnaires and/or during the site visits, as they have added a vital 'human dimension' to the study.

Section 1: Introduction

1.1 THE TELECARE DEVELOPMENT PROGRAMME

The Joint Improvement Team (JIT) submitted a Business Case for funding a Telecare Development Programme (TDP) to the (then) Scottish Executive in May 2006[1]. The overall aim of the programme was specified to be *"to help an additional 19,000 people to live at home for longer"*. This 19,000 related to care home beds 'saved', with a target of 75,000 people to be in receipt of telecare services across Scotland in 2010, including 9,000 with a diagnosis of dementia.

The National Telecare Development Programme was subsequently officially launched in August 2006. Its the overall aim is:

> *"To help more people in Scotland live at home for longer, with safety and security, by promoting the use of telecare in Scotland through the provision of a development fund and associated support."*

The TDP was expected from the outset to provide the foundation for telecare systems to become an integral part of community care services across Scotland.

The TDP is managed by the Scottish Government's Joint Improvement Team (JIT), which reports to a National Telecare Programme Board. This Board holds primary responsibility for the strategic development of the National Telecare Programme. It advises and supports Senior Officers in JIT on the management of the TDP Fund; specifically:

- Ensuring there is an effective, fit for purpose governance and management framework;
- Ensuring the roles, responsibilities and accountabilities of individuals and groups is clear;
- Ensuring that key decisions and actions are taken in accordance with the agreed framework;
- Ensuring there is regular and appropriate reporting on key elements of the Programme;
- Developing policy and determining the strategic direction of the Programme.

[1] Joint Improvement Team. *Proposal: Telecare Development Programme.* May 2006. Available from http://www.jitscotland.org.uk/downloads/1208770769-Telecare%20Development%20Programme%20Proposal%20May%202006.pdf (accessed November 2008).

The Scottish Government made available a sum of £8.35 million for investment via the TDP in telecare programmes throughout Scotland during 2006/07 and 2007/08. As part of this funding process, JIT commissioned researchers from York Health Economics Consortium (YHEC) at the University of York to monitor TDP-funded activity and to undertake an independent evaluation of its effectiveness and impact during the above period. This Report presents the findings of this evaluation.

1.2 WHAT IS TELECARE?

There is considerable variation in the ways that telecare, telehealth and telemedicine are defined. The national TDP in Scotland has adopted a definition taken from the 'Shared Vocabulary' agreed and published by the Scottish Government[2]. It is consistent with the definitions used in the English and Welsh development programmes:

> *"Telecare is the remote or enhanced delivery of health and social services to people in their own homes by means of telecommunications and computerised systems. Telecare usually refers to equipment and detectors that provide continuous, automatic and remote monitoring of care needs emergencies and lifestyle changes, using information and communication technology (ICT) to trigger human responses, or shut down equipment to prevent hazards."*

Although there is no standard categorisation of telecare, for the purpose of the TDP in Scotland the categories suggested within the guidelines produced by the Welsh Assembly Government in October 2005 have been adopted:

- **First Generation Telecare** refers to equipment and devices found in most Community Alarm schemes. It refers to user-activated – e.g. push button, pendant or pull cord – alarm calls to a control centre, where a call handler can organise a response of some kind – usually via a neighbour, relative or friend acting as a 'key holder'.
- **Second Generation Telecare** evolved from the introduction into basic Community Alarm services of sensors such as smoke alarms and flood detectors. Second generation telecare includes sensors which can monitor the home environment, vital signs, physiological measures, and lifestyle. These sensors can collect and transmit information continuously about door opening, bathwater running, the use of electrical appliances, and movement both within and outwith the home. This provides a much more sophisticated and comprehensive support to managing risk and improved quality of life.

[2] See http://www.jitscotland.org.uk/action-areas/telecare-in-scotland/ and http://www.scotland.gov.uk/Topics/Health/care/EandA/vocab (accessed December 2008).

- **Third Generation Telecare** arose from improving and increasing availability of broadband, wireless and audio-visual technology. This offers potential for virtual or teleconsultations between the service user and doctor, nurse or support worker, thus reducing the need for home visits or hospital appointments. Furthermore, it leads to increasing opportunities for people – particularly those unable to leave their homes alone – to 'visit' libraries, shops and maintain contact with family and friends.

1.3 THE WIDER POLICY CONTEXT[3]

Telecare services are being developed in many countries, including England and Wales. For example, central government in England has adopted an unambiguous policy commitment to telecare, with an explicit overall aim to ensure a telecare service is installed in all homes that need it by 2010. Grant funding of £80 million - known as the Preventive Technology Grant (PTG) - was made available to local social care authorities in England from April 2006. These funds were expected to increase the numbers of older people benefiting from telecare by at least 160,000 over a two-year period. In Wales, a Telecare Capital Grant of just under £9 million has been made available over the period 2006-09, with a policy target of providing 10,000 homes with telecare equipment. Each of the 22 Welsh Local Authorities has also received an additional £40,000 of revenue grant to support the development of telecare strategies.

A more varied picture emerges when looking further afield, but telecare is being explored and developed in several western European countries, including the Netherlands, Norway and Denmark. However, measured against a wide range of countries, Scottish progress to date has been good and *"Scotland can consider itself in the vanguard of countries progressing to mainstream telecare service provision"* [4].

1.4 AIMS AND OBJECTIVES OF TDP AND OF EVALUATION

1.4.1 Objectives of TDP

The TDP has eight objectives, which are to:

1. Reduce the number of avoidable emergency admissions and readmissions to hospital;
2. Increase the speed of discharge from hospital once clinical need is met;
3. Reduce the use of care homes;
4. Improve the quality of life of users of telecare services;
5. Reduce the pressure on (informal) carers;
6. Extend the range of people assisted by telecare services in Scotland;

[3] Joint Improvement Team. *Telecare in Scotland: Benchmarking the Present, Embracing the Future*. February 2008. Available from http://www.jitscotland.org.uk/downloads/1209554318-1204629144-TDP%20-%20TDB%20-%2015%20Feb%202008%20-%20Benchmarking%20Report.pdf (accessed December 2008)
[4] See footnote 3.

7. Achieve efficiencies (cash releasing or time releasing) from the programme investment in telecare;

8. Support effective procurement to ensure that telecare services grow as quickly as possible.

1.4.2 Objectives of the Evaluation

The three principle objectives of the evaluation, as stated by JIT in the tender specification, are to:

- Develop an overall monitoring and evaluation framework that is cost-effective and fit for purpose;
- Assist local partnerships to identify and collect the information needed to undertake effective monitoring and evaluation;
- Provide an evidence base at the conclusion of the project that demonstrates both the extent of any efficiency gains to local partnerships from adopting telecare solutions and of specific benefits delivered to particular users, or groups of users of telecare services.

During the evaluation period YHEC developed a quarterly data collection form for completion and return by each Partnership. It focuses primarily on collecting the data needed to monitor progress and performance against the eight TDP objectives and therefore was a key component of the external evaluation. YHEC also provided guidelines for completing the Quarterly Returns and telephone and email contacts with researchers for those with specific questions relating to the Return.

The monitoring framework and data collection tools developed during this period (with some refinements in the light of experience during 2007/08) continue to be used by JIT during 2008/09 and 2009/2010 so that a more complete picture of the impact of the TDP can be gained in due course.

1.5 STRUCTURE OF REPORT

This report comprises 15 sections and 14 accompanying appendices.

The next two sections set the scene for the evaluation:

- Section 2 provides summary background and baseline information on the Scottish TDP 2006-08 and a brief overview of relevant literature;
- Section 3 describes the methodology underpinning the evaluation and describes in more detail the data collection tools used by YHEC.

The following eight sections focus on presenting data on aggregate performance in Scotland against the TDP objectives (as presented in Section 1.4 above).

The final four sections consider the lessons from and the impact of the TDP in 2006/07 and 2007/08:

- Section 12 considers other lessons from the TDP derived from information provided in the Quarterly Returns;
- Section 13 considers the other lessons from the experiences of the case study sites;
- Section 14 provides a brief overview of JIT's plans for progressing telecare during 2008/09 and 2009/10;
- Section 15 discusses the main findings from the external evaluation.

Section 2: Setting the Scene

2.1 OVERVIEW

This section provides some background and baseline information relating to the TDP. Section 2.2 provides an overview of the TDP funding allocation process, with additional material being included in Appendices A and B.

A brief summary of the key findings from published reports and papers on telecare that were available in the summer of 2006 is given in Section 2.3. This information shows some of the potential benefits that telecare might have been expected to deliver at the time of the launch of the TDP. Additional details from these studies are provided in Appendix C.

Finally, Section 2.4 presents some baseline information about telecare provision prior to the allocation of the TDP monies, with additional information in Appendix D.

2.2 THE TDP 2006-08 FUNDING ALLOCATION PROCESS

TDP funding 2006-08 was allocated to the Partnerships using a two-stage process (see also Appendix A). As part of their initial application for funds from the TDP, Partnerships had to complete and submit a 'Stage 1' form to JIT by 31 October 2006[5]. This requested information from each Partnership about their proposed project(s)[6], key outcomes (along with their related outcome measures), and the efficiency savings expected from the local development of telecare services[7]. Descriptions of their proposed projects are included in Appendix E.

Partnerships were subsequently asked to complete a 'Stage 2' application form for 2007/08 funding, which was issued by JIT in March 2007 (see Appendix F) for return by 16 April 2007. This form comprised three parts:

- Additional background and baseline information (identified by YHEC);
- Core Outcome Statements;
- Core Efficiency Statements.

[5] Joint Improvement Team. *Telecare Development Programme Guidance and Application for Funding: Version 1.1*. September 2006. Available from http://www.jitscotland.org.uk/downloads/1208770679-Telecare%20Development%20Programme%20Guidance%20v1.1%20Sep%202006.pdf (accessed December 2008).

[6] For example, about their proposed use of their nominally allocated TDP funds, such as client group(s), types of telecare equipment, and anticipated numbers of clients.

[7] Partnerships were also asked for contextual information, to assess the risks associated with developing telecare service and how they proposed to address these, and about their planned approach to sustaining telecare services locally.

2.3 LITERATURE

Telecare is a relatively recent development and current evidence on its effectiveness is limited to case study evaluations of specialist projects and trials. To date these evaluations have all been over a short timescale and quantification of outcomes and efficiencies has been limited. In mid 2006 - the time when Partnerships were being invited to apply for TDP funds - the evidence base suggesting that telecare can provide people with greater safety and security while maintaining independence for longer was growing. At that time, the key pioneering projects that had published material about their experiences were in:

- West Lothian;
- Northamptonshire;
- County Durham;
- Carlisle; and
- Sandwell.

Summary details of these projects are provided in Appendix C. Overall, the studies publishing details about these initiatives confirm that telecare has the potential to have a positive impact on maintaining users' independence and enabling some local resource savings to be made, especially for older people. However, there may also be some 'publications bias', as the results of poorly performing pilot studies (across all types of health and social care innovations) are rarely published. It was therefore not known whether telecare equipment had been piloted with other client groups (e.g. people with learning disabilities), or whether any such pilots had failed to discover any positive findings. Furthermore, it was also not known if telecare services for older people had been piloted unsuccessfully in other places.

2.4 BASELINE SITUATION

2.4.1 Telecare Services in Scotland (March 2007)

Information provided by the Partnerships (see Appendix D for additional details) showed that, in March 2007, all had some telecare provision in their area. The telecare that they had was provided by a number of different organisations, namely:

- Local Authorities – usually community alarms;
- Housing Associations – usually in the form of alarm systems located in sheltered housing units;
- Charities (e.g. Age Concern);
- Health sector organisations (in Aberdeen services are provided by NHS Grampian and in Falkirk they are provided by Forth Valley Health Board).

During 2005/06 there was a great deal of variation in levels of expenditure between Partnerships, ranging from a few thousand pounds in some Partnerships to over a million pounds in others. Funding came from many different sources, including:

- Housing budgets;
- Social work budgets;
- Regeneration funds;
- Community care budgets;
- Local authority adult service budgets;
- Charges to users;
- Charitable trusts.

2.4.2 Early use of TDP Funds

Although the first financial year for deployment of TDP funding was 2006/07, in practice few Partnerships were able to use TDP money to provide services to clients within that financial year. In total, six Partnerships had TDP-funded clients in the 2006/07 period (i.e. prior to April 2007), involving 368 clients.

Section 3: Evaluation Methodology

3.1 OVERVIEW

This section describes the methodology adopted by YHEC for the evaluation. The evaluation focuses mainly on considering the extent to which the eight objectives identified by JIT and stated in Section 1.4.1 were achieved during 2006-08. However, it also draws together some of the main lessons learned by the Partnerships during this period, as these will be of interest to others considering developing and/or extending their telecare services.

At the outset of the study, a number of methodological possibilities were explored. These are described in Section 3.2, along with their shortcomings from the perspective of this specific evaluation.

The adopted methodology, which focused on collecting and using the data required by JIT for its monitoring purposes, is discussed in Section 3.3.

3.2 POTENTIAL METHODOLOGICAL APPROACHES

At the start of the evaluation, YHEC explored several possible methodological approaches. These focused on trying to determine what would probably have happened to the telecare recipient in the absence of the telecare intervention.

3.2.1 The Randomised Controlled Trial (RCT)

The purest methodological approach to evaluating a new initiative is to adopt a double-blinded randomised controlled trial (i.e. when subjects are randomly allocated to a 'trial' (or 'intervention') group or a 'control' group, with neither the subjects nor those assessing them knowing the group to which each individual has been allocated). This approach is frequently used for medical research (e.g. trials of a new drug or a new form of treatment). Those recruited to the trial are generally free of other co-morbidities, as these could influence the effectiveness of the intervention under consideration.

An RCT is generally unsuitable for evaluating changes in service provision, partly due to the effects of other potential local and national influences on the objectives (e.g. the development of intermediate care teams to reduce hospital admissions and facilitate hospital discharges). If this methodology had been applied to this evaluation, one of two approaches could have been adopted. Under the first approach, each Partnership would have needed to identify a sample of residents who were non-recipients of telecare with similar characteristics to its recipients to be the 'control' group (though it would not have been possible for them to be double-blinded). Under the second approach, 'control' groups could have been identified within other Partnerships not adopting the specific telecare intervention. However, matching

recruits for personal health and social circumstances would have been very difficult. There would also have been some potential ethical problems with adopting an RCT approach (e.g. deliberately withholding a service with known benefits). Moreover, the TDP was at the outset explicitly established as a Scotland-wide programme intended to extend the use of telecare as quickly and as widely as possible. The RCT methodology was therefore rejected on grounds of inappropriateness for this evaluation.

3.2.2 'Before' and 'After' Comparisons – Population Level

Another possible approach was to compare population-level data before and after the introduction of telecare. National data are collected for many facets of health and social care, including emergency admissions to hospital, delayed discharges from hospital, and admissions to long-term care in residential and nursing homes. Such data are generally published at NHS Health Board and/or at Local Authority levels. The researchers explored the possibility of using relevant time series data for the previous three to five years, to see if any recent trends could be identified, focusing on rates (rather than on absolute numbers) to take account of recent demographic changes.

Several shortcomings were identified with this approach. Firstly, although any observed changes in these data might be due to the introduction of telecare, they could also be due to entirely unrelated factors (e.g. strong packages of community support to promote independent living). Secondly, even if a new initiative (such as telecare) is having an impact, it is likely to be relatively small during the initial year or so, whilst the service becomes established. Thirdly, there was considerable year-on-year variation for some of the potential data sources, meaning that any changes after the introduction of telecare services could be due to random fluctuations. Finally, these national-level data are generally only available with a considerable time delay, meaning that, even had they been felt to be suitable, they would not necessarily have been available during the evaluation period. This approach was therefore also rejected on grounds of inappropriateness for this evaluation[8].

3.2.3 'Before' and 'After' Comparisons – Individual Level

The researchers also considered making 'before' and 'after' comparisons for the individual recipients of telecare services. This would have required collecting specific data on their service use both before and during their receipt of telecare services to enable comparisons to be made. For example, their pattern of hospital admissions over the previous two to five years could be compared with their pattern of admissions after they received their telecare equipment.

However, several problems were identified with adopting this approach. Firstly, the required 'before' data would be difficult to collect, especially NHS data relating to hospital stays. Such information would not be routinely available, especially to staff from Social Work

[8] YHEC also explored the possibility of using the SPARRA (Scottish Patients at Risk of Readmission and Admission) risk prediction tool for comparing actual and expected admissions and readmissions to hospital. However, it was still being developed by ISD Scotland when the potential methodological approaches for this evaluation were being considered.

Services (who would be likely to be making the assessments and collecting the required data). Secondly, clients may be provided with telecare after an acute life-changing event (for example, a stroke or heart attack). Such an event may suddenly substantially increase the client's care needs, risk of hospitalisation, or risk of care home admission. In such a case a 'before and after' study would not be appropriate. Thirdly, client recall of previous events can be unreliable. Fourthly, as many telecare users are frail and elderly, their health may deteriorate for natural reasons beyond the influence of telecare equipment. Hospital admissions can also occur for 'unavoidable' reasons (e.g. due to a heart attack; carer illness), so it would be important for the reasons underpinning any hospital admissions to be known. Service users would also need to be monitored on an ongoing basis after receiving their telecare equipment to identify any moves into long-term care or any other significant changes in their use of other services. Whilst this may have been possible for Partnerships issuing telecare equipment to small numbers of users with highly specific needs (e.g. adults with learning disabilities), it was considered to be too time-consuming for Partnerships issuing equipment to large numbers of users (e.g. for preventive reasons and to promote security and independence).

3.2.4 Rationale for Adopted Approach

Given the limitations of the above approaches, it was decided to adopt a more pragmatic approach that focused primarily on capturing the data needed for the monitoring requirements identified by JIT. Specifically, Partnerships were expected to provide summary information on the development of their telecare projects on a quarterly basis for the 2007/08 financial year (see Section 3.3) and this was used as the primary source of data for the evaluation. Every effort was made to ensure that the data requested in the Quarterly Returns did not place a significant burden on the Partnerships, and it was anticipated that much of the requested information would be routinely available as it would be being collected for local monitoring purposes.

Adopting this approach to the evaluation relied on Project Managers or other staff working with the telecare users (e.g. those undertaking telecare assessments) to identify what they thought would otherwise have happened to the client at and subsequent to the time of issue of their telecare equipment. This information was then used to estimate the resources that would have been used if the telecare equipment had not been provided. Although this approach is inevitably subjective, it is based on expert opinion at the local level, and is not too onerous in terms of time requirements on Partnerships for data assembly and supply.

3.3 DESCRIPTION OF ADOPTED APPROACH

3.3.1 Background Information and Stage 2 Forms

Although (as noted above and discussed in more detail below) the Quarterly Returns were YHEC's main data collection tool, some specific background and baseline information was collected in the Stage 2 forms (issued in March 2007) and through a Background Information Form issued by YHEC in summer 2007. Copies of these forms can be found in Appendix F[9].

3.3.2 YHEC's Quarterly Returns

YHEC's main data collection tool was the Quarterly Return (see Appendix F), which Partnerships were asked to complete for each quarter during 2007/08. To accommodate information collection from the wide variety of projects planned by Partnerships, the Quarterly Return was designed to be very flexible. This flexibility meant that not all of the data collection fields were relevant to all telecare projects.

It was designed to:

- Enable YHEC to consider the performance of the Partnerships against most of the eight objectives identified by JIT;
- Provide additional information of potential interest to others considering developing and/or expanding their local telecare services;
- Provide data that Project Managers would find useful for monitoring local progress and preparing locally-required documents (including preparing cases for additional and/or mainstream funds);
- Reflect Convention of Scottish Local Authorities (COSLA) requirements that research should not place unreasonable additional demands on already overstretched Local Authority staff.

The Quarterly Return built upon the Core Outcome Statements and the Core Efficiency Statements identified in the Stage 2 form (see Appendix A). As well as requesting activity data (such as the numbers of new clients in each quarter, along with their age, sex, ethnicity and client group, and their reasons for receiving telecare equipment), the Quarterly Return also requested information from each Partnership on progress against locally identified outcomes. Each Partnership was also asked to summarise progress against its Core Outcome and Core Efficiency Statements for 2007/08. This information was disaggregated so that it was given for each relevant client group. Partnerships were asked to state whether their data relating to outcomes and efficiencies were cumulative or quarter-specific. Where Partnerships gave quarter-specific data, YHEC summed the data from past quarters to give cumulative figures.

[9] Appendix A includes additional information about the Stage 2 form, and also about the preceding Stage 1 form issued by JIT in the autumn of 2006.

Partnership-specific Quarterly Returns were emailed to the named contact at each Partnership for return within six weeks of the end of each quarter. The information collected in the four Quarterly Returns for 2007/08 was analysed by YHEC and used to address evaluation objectives 1, 2, 3, 6 and 7 (see Sections 4, 5, 6, 9 and 10, respectively, for further information). YHEC also prepared four detailed reports for JIT drawing together the data from each Quarterly Return so that JIT could monitor Partnerships' progress against their core outcomes and efficiencies. A table showing Partnerships' progress towards aggregate targets can be found in Appendix G.

The Quarterly Returns were also used to gather feedback from Partnerships about their experience of using the NHS Purchasing and Supply Agency (PASA) framework[10]. Those Partnerships that used PASA were asked for feedback on their experiences, whilst those that did not use PASA were asked to explain how and why they used alternative sources for commissioning and procuring their telecare equipment. This information was used to address evaluation objective 8 (see Section 11 for further information).

The final section of the Quarterly Return gave Partnerships the opportunity to provide information to the evaluation team that they might not wish JIT to see. Partnerships were also invited to report:

- Whether they had included copies of all relevant local reports with their return;
- Any reasons for non-inclusion of all relevant local reports;
- Any additional information about the use of their TDP funds.

YHEC produced two documents to support Partnerships in completing their Quarterly Returns and these can be found in Appendix H.

3.3.3 YHEC's Questionnaires for Users and Carers

YHEC also developed two questionnaires - one for service users and one for (informal) carers - to measure performance against objectives 4 and 5 (namely improvement in users' quality of life due to their telecare services and reduction in pressure on informal carers). These questionnaires are presented in Appendix F.

Many of the Partnerships simply distributed YHEC's questionnaires to local service users and their carers (and received a copy of YHEC's analysis of the returns received). Some, however, chose to incorporate YHEC's questions with others of their own (e.g. exploring views on the installation of the telecare equipment) in a local survey schedule.

[10] A National Framework Agreement was launched in June 2006 by PASA to procure telecare effectively and to develop a single 'public sector' market place. JIT negotiated on behalf of the Scottish Partnerships for them to be able to use this framework when procuring Telecare equipment funded through the TDP. The Partnerships were expected to use PASA unless they could demonstrate they had other arrangements which provide better value.

The YHEC questionnaires included a number of open questions exploring what users and carers liked most and least about telecare equipment. These comments provide additional insights into the experiences of many users and carers (see Sections 7 and 8 and Appendices I and J for further information).

It should also be noted that the Quarterly Returns included a question asking Partnerships to summarise any locally collected information on the impact of the TDP on users and/or carers, and to attach a copy of any relevant local reports or summaries. Project Managers were also asked to send any examples of local case studies of service users. Relatively little additional information was collected in this way.

3.3.4 Case Study Sites

As part of the evaluation exercise, five Partnerships were asked to participate as case studies[11]. The case studies were intended to provide a more detailed assessment of how TDP funding had been used to help people to live at home for longer with safety and security. They also provided more detailed feedback than that provided in the Quarterly Returns on local experiences of developing and implementing telecare services. Visits to these Partnerships also allowed the researchers to interview a range of local managers and other staff (e.g. telecare assessors; equipment fitters; staff from call centres and responder services) in person, to meet some service users and their carers, and to see local facilities for demonstrating relevant equipment. The case studies sites were selected to provide a cross-section of Partnerships from across Scotland, drawn from a mixture of urban and rural areas and implementing a range of telecare projects (see Appendix K).

The findings from the case study sites are discussed in Section 13.

3.3.5 Other Sources of Information used by YHEC in the Evaluation

To ensure that the evaluation captured information that might be useful for others considering developing and/or expanding telecare services, YHEC included several additional questions in the final Quarterly Return for 2007/08. These questions explored whether:

- Telecare initiatives were continuing in 2008/09;
- Partnerships had any future plans to roll-out telecare further;
- Partnerships had any financial information relating to their local telecare service, such as copies of budgets or income and expenditure accounts;
- Any local calculations had been made of any increased expenditure needed as a consequence of the impact of telecare (e.g. additional home care; additional respite care; additional call centre/responder staff).

[11] YHEC wished to recruit up to eight case study sites. However, some of the Partnerships on the initial list of potential case study sites were unable or unwilling to be involved (e.g. due to staffing constraints, time pressures, and slow local progress), resulting in five case study Partnerships being selected.

Finally, the fourth Quarterly Return asked Project Managers to look back over the two years since April 2006 and identify:

- Which local services and/or client groups they felt had benefited most from the expenditure related to TDP funds;
- Which three telecare-related achievements had given them the most professional satisfaction;
- What had been the three greatest frustrations relating to developing telecare services locally;
- The three pieces of advice they would give to someone about to develop telecare services in their area.

This material is presented in Section 12.

Project Managers were also asked to send YHEC any other information that they thought might inform the evaluation, such as local documents and reports.

3.4 SUMMARY

Table 3.1 summarises the data sources used to evaluate the performance of the Partnerships against the eight key objectives.

Table 3.1: Data sources for evaluating performance against each objective

Objective	Data Sources
1. Reduce the number of avoidable emergency admissions and readmissions to hospital	Quarterly Returns by Partnerships – numbers drawn from data on core outcomes
2. Increase the speed of discharge from hospital once clinical need is met	Quarterly Returns by Partnerships – numbers drawn from data on core outcomes
3. Reduce the use of care homes	Quarterly Returns by Partnerships – numbers drawn from data on core outcomes
4. Improve the quality of life for users of telecare services	Specific questionnaires for users designed by YHEC and distributed by the Partnerships (plus any local feedback provided by the Partnerships)
5. Reduce the pressure on informal carers	Specific questionnaires for informal carers designed by YHEC and distributed by the Partnerships (plus any local feedback provided by the Partnerships)
6. Extend the range of people assisted by telecare services	Baseline information (e.g. from Stage 2 form) and Quarterly Returns by Partnerships – data on numbers of clients and their client groups
7. Achieve efficiencies (cash releasing or time releasing) from the investment in telecare	Quarterly Returns by Partnerships - drawn from data on core efficiencies (cumulative impact over 2007/08) and supported by the *Costs Book 2007*[12] and the *Costs Book 2008*[13]
8. Support effective procurement to ensure that telecare services grow as quickly as possible	Quarterly Returns by Partnerships – specific questions about use of PASA and reasons for non-use

[12] Information Services Division Scotland. *Costs Book 2007.* Available from http://www.isdscotland.org/isd/5800.html (accessed December 2008).

[13] Information Services Division Scotland. *Costs Book 2008*. Available from http://www.isdscotland.org/isd/4434.html (accessed December 2008).

Section 4: Objective 1 – Reduce the Number of Avoidable Emergency Admissions and Readmissions to Hospital

Key Points

- By the end of 2007/08, 18 Partnerships reported having avoided unplanned hospital admissions, with these savings being made across 22 projects;
- During this period it is estimated that the number of unplanned hospital admissions was reduced by 1,220 (and by 13,870 bed days);
- The scale of these achievements varied considerably across Partnerships;
- The main beneficiaries were older people.

Box 4.1: Context

The Information Service Division (ISD) data dictionary[14] defines an emergency admission as one that occurs when, for clinical reasons, a patient is admitted at the earliest possible time after seeing a doctor. The dictionary further explains that:

- The patient may or may not be admitted through Accident & Emergency;
- Emergency admissions from a waiting list can be identified from the patient's Waiting List Type code;
- Current rules state that day cases MUST NOT be admitted as urgent or emergency admissions - a patient may be admitted as a day case ONLY if he/she is undergoing ROUTINE admission.

A steady rise in the number of emergency inpatient admissions has been a major source of pressure for the NHS over the past twenty years. Figures published on the ISD website[15] show that in 2007/08 there were 513,557 emergency admissions in Scotland, an increase of 68,233 from levels recorded in 1998/99. Between 1998/99 and 2006/07 the number of bed days for emergency admissions rose from 3,839,816 to 4,015,531, an increase of 175,715.

4.1 OUTCOMES – ADMISSIONS AVOIDED

Partnerships were asked to use local knowledge to estimate the number of avoidable unplanned admissions to hospital that had been prevented during each quarter of 2007/08 due to the use of TDP funds. This estimate included not only new TDP-funded clients from that quarter, but also TDP-funded clients recruited during previous quarters. For example, if

[14] http://www.datadictionaryadmin.scot.nhs.uk/isddd/9790.html (accessed December 2008).
[15] http://www.isdscotland.org/isd/3838.html (accessed December 2008).

a Partnership estimated that ten admissions had been prevented for new clients and 20 for existing clients, then calculations would relate to a total of 30 prevented unplanned admissions for the quarter under consideration.

4.1.1 Progress in Avoided Admissions

By the end of 2007/08, 18 Partnerships reported having avoided unplanned hospital admissions. These savings were made across 22 projects and across a number of different client groups (as shown in Table 4.1). The scale of these achievements varied considerably across Partnerships for many reasons, including the particular focus of local telecare projects and the speed with which they were implemented.

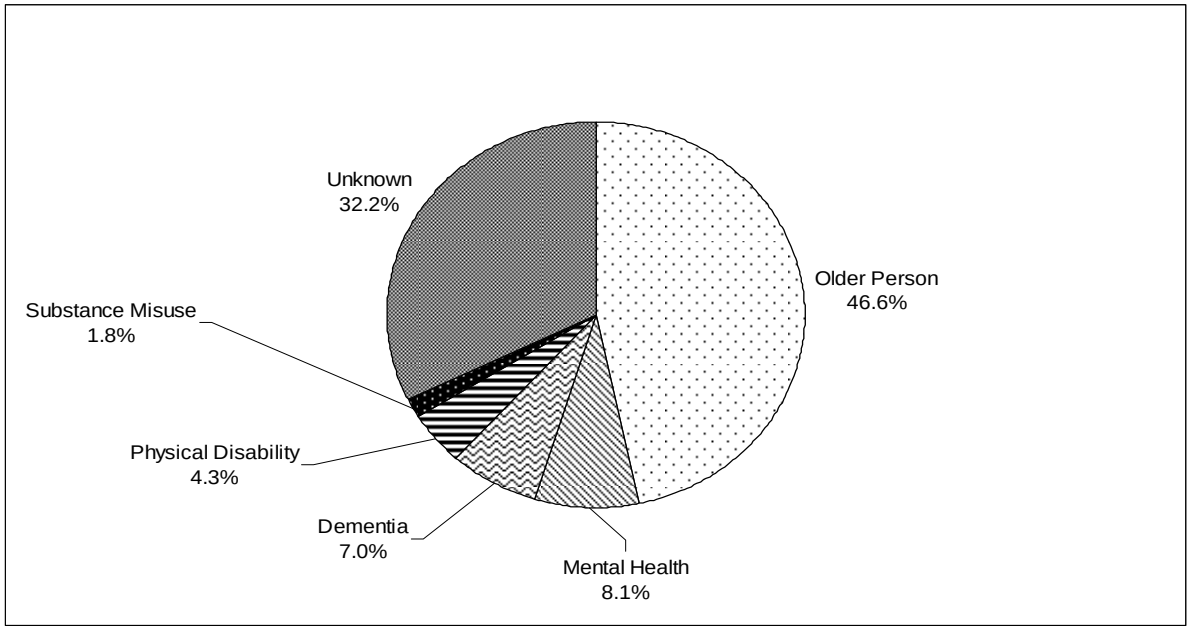
Table 4.1: Cumulative progress against reducing the number of avoidable emergency admissions and re-admissions

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Number of Partnerships (projects)	7 (7)	9 (9)	16 (18)	18 (22)
Client Group				
Older Person	58	98	262	569
Mental Health	14	15	35	99
Dementia	13	15	38	85
Physical Disability	2	6	23	52
Learning Disability	-	-	-	-
Substance Misuse	5	5	12	22
Child (under 16)	-	-	-	-
Unknown	118	182	391	393
TOTAL	**210**	**321**	**761**	**1,220**

Figure 4.1 shows that just under half (46.6%) of the people who were believed to have avoided hospital admissions were older people. If it is assumed that all people with dementia are older people[16] then this proportion rises to 53.6%.

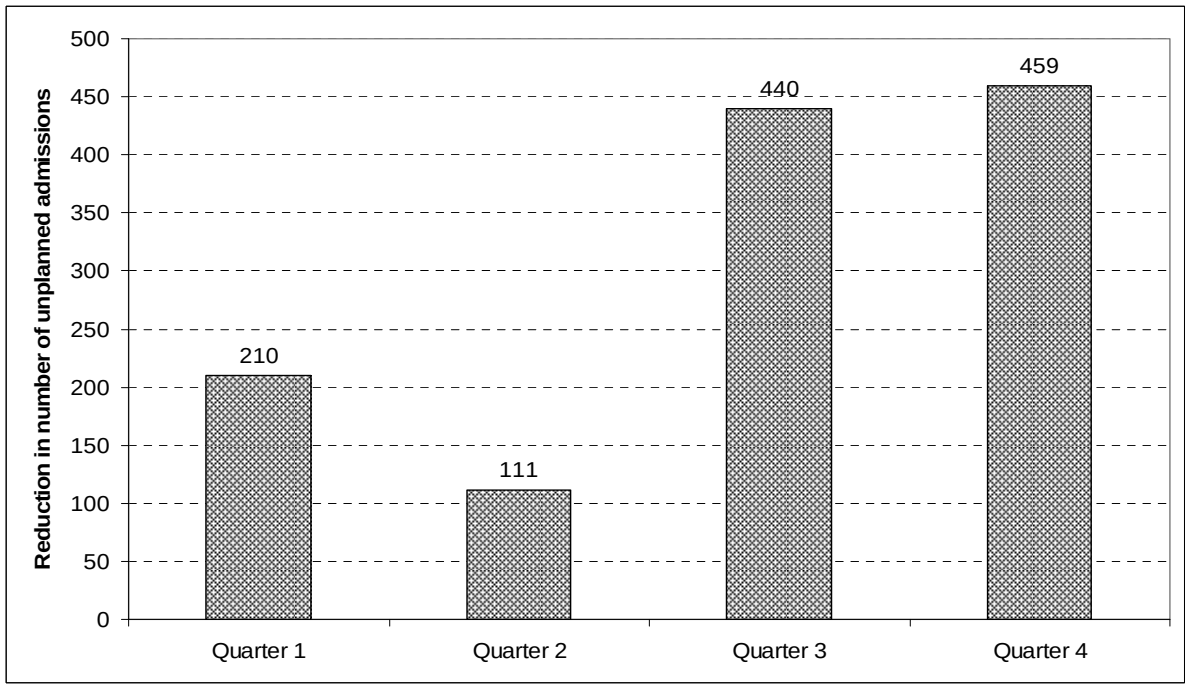
[16] In February 2007 the Alzheimer's Society published a major study on the social and economic impact of dementia in the UK. This research, commissioned through King's College London and the London School of Economics, provides a picture of prevalence and economic impact of dementia in the UK. One of the supplements to this report provides estimates of the number of people in Scotland with dementia, namely 56,046 people, of whom 8,754 (15.6%) are aged 65 – 74 years and 45,973 (82.0%) are aged 75 or over, giving a total of 54,727 (97.6%) aged 65 or above (http://www.alzheimers.org.uk/downloads/Local_figures_Scotland.xls accessed December 2008).

Figure 4.1: Distribution of categories of clients for whom unplanned hospital admissions were reduced



Analysis of the number of hospital admissions avoided in each quarter shows that the number of admissions avoided in Quarter 2 was less than (approximately half of) that recorded in Quarter 1 (see Figure 4.2). The levels of avoided admissions reported in Quarters 3 and 4 were approximately twice as high as those estimated for Quarter 1.

Figure 4.2: Quarterly reduction in number of unplanned hospital admissions (2007/08)



4.2 EFFICIENCIES – BED DAYS SAVED

4.2.1 Progress in Saved Bed Days

The number of bed days saved due to each avoided admission depends on the characteristics of individual clients. Partnerships were advised that, where local information was not available, Health Board specific figures for different specialties which are published in the *Costs Book 2007*[17] should be used.

The values given by Partnerships for the estimated number of bed days saved per avoided admission ranged from 1.8 days to 29.5 days. In cases where Partnerships have been unable to make estimates, YHEC has assumed a saving of 4.6 days per prevented admission. This figure is based on the average length of stay for General Medicine (excluding long-stay) reported in the *Costs Book 2008*[18]. Table 4.2 shows cumulative progress in terms of bed days saved.

Table 4.2: Bed days saved - cumulative progress*

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Number of Partnerships (projects)	7 (7)	9 (9)	16 (18)	18 (22)
Client Category				
Older Person	52	82	6320	10,288
Mental Health	31	31	273	1,169
Dementia	41	45	256	790
Physical Disability	132	258	596	997
Learning Disability	-	-	-	-
Substance Misuse	10	10	43	63
Child (under 16)	-	-	-	-
Unknown	242	739	715	563
TOTAL	**508**	**1,165**	**8,203**	**13,870**

* *Prior to Quarter 3 one of the Partnerships was unable to provide information on bed days saved due to avoided admissions and an estimate for this was made by the researchers, using the assumptions reported in Table 10.1. From Quarter 3 onwards this information was supplied directly by the Partnership, showing the YHEC figure to be a significant underestimate for their local circumstances. The reported increase in bed days from Quarter 2 to Quarter 3 in part reflects this.*

Figure 4.3 shows that nearly three quarters (74.2%) of the saved bed days were due to admissions avoided by older people. If it is assumed that all of the people with dementia are older people[19], then this proportion rises to four fifths (79.9%).

[17] Information Services Division Scotland. *Costs Book 2007.* Available from http://www.isdscotland.org/isd/5800.html (accessed December 2008).
[18] Information Services Division Scotland. *Costs Book 2008*. Available from http://www.isdscotland.org/isd/4434.html (accessed December 2008).
[19] See footnote 16.

Figure 4.3: Distribution of categories of clients for whom unplanned hospital admissions were reduced

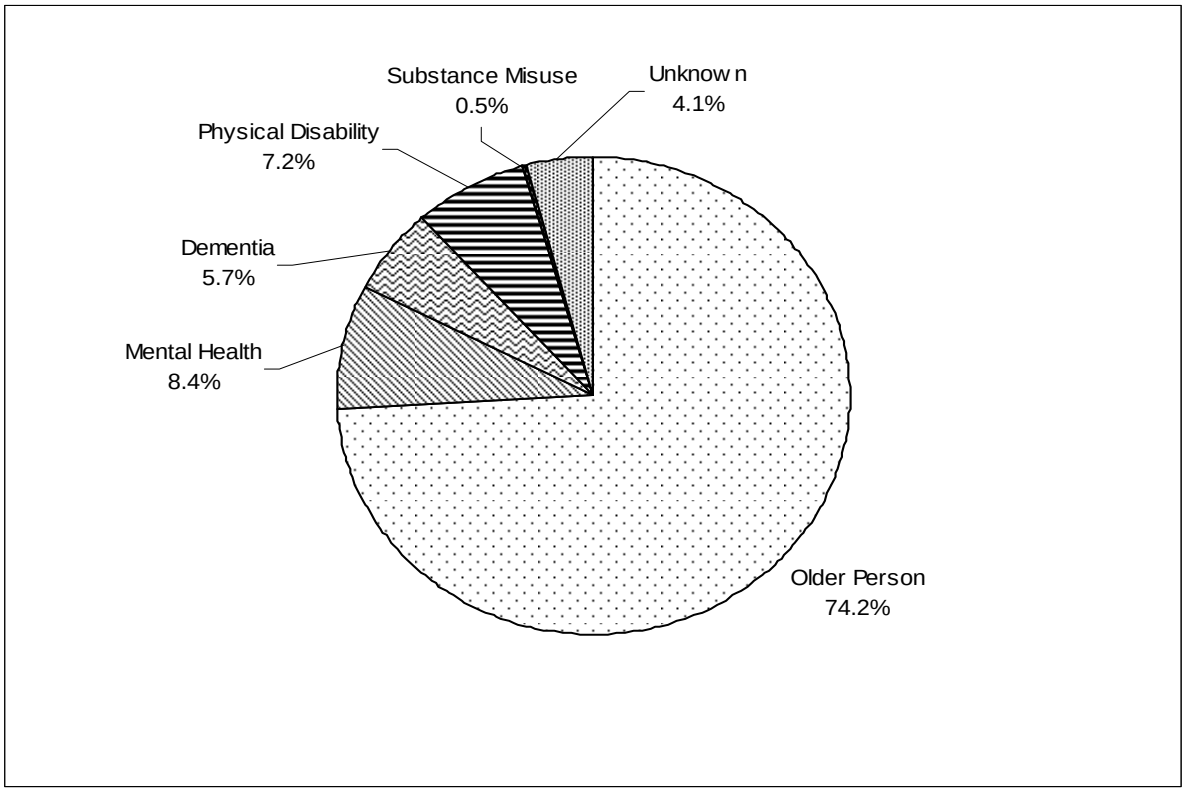
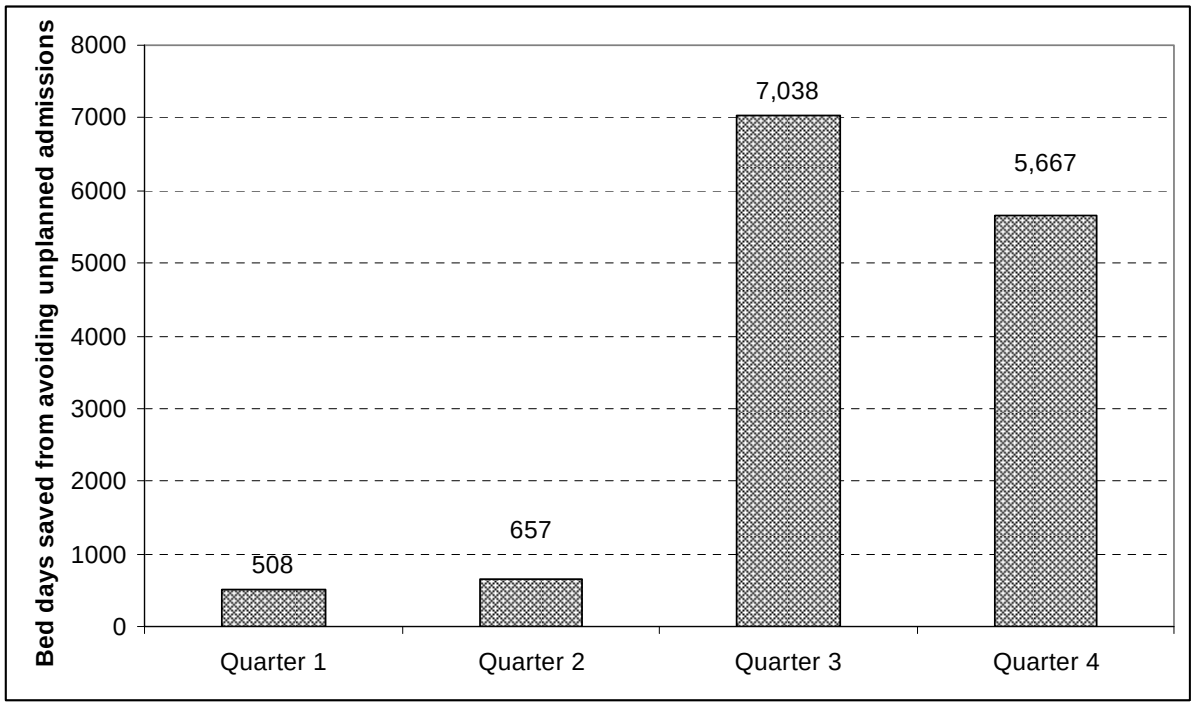


Figure 4.4 shows the number of bed days saved in each quarter. The numbers are relatively low in Quarters 1 and 2, but substantially higher in Quarters 3 and 4.

Figure 4.4: Number of bed days saved in each quarter (2007/08)



Section 5: Objective 2 – Increase the Speed of Discharge from Hospital once Clinical Need is Met

Key Points

- By the end of 2007/08, 20 Partnerships reported having reduced the number of delayed discharges (used as a proxy for increasing the speed of discharge), with these savings being made across 21 projects;
- During this period it is estimated that the number of discharges facilitated by TDP funds was 517, with an accompanying saving of 5,668 bed days;
- The scale of these achievements varied considerably across Partnerships;
- The number of bed days saved for each facilitated discharge appears generally to be between 7 and 15 days;
- The main beneficiaries were older people.

Box 5.1: Context[20]

A delayed discharge is experienced by a hospital inpatient who is clinically ready to move on to a more appropriate care setting but is prevented from doing so for various reasons. The next stage of care covers all appropriate destinations within and outwith the NHS (patient's home, nursing home etc). The date on which the patient is clinically ready to move on to the next stage of care is the ready-for-discharge date, which is determined by the consultant/GP responsible for the inpatient care in consultation with all agencies involved in planning the patient's discharge, both NHS and non-NHS (Multi-Disciplinary Team). Thus the patient is ready-for-discharge, but the discharge is delayed due to:

- Social care reasons;
- Healthcare reasons;
- Patient/Carer/Family-related reasons.

In non-short stay facilities there is a period of six weeks beyond the date at which patients are defined as being ready-for-discharge during which all assessment and follow-on arrangements are expected to be put in place.

At the October 2008 census, there were a total of 678 delayed discharges in Scotland, compared with 601 at the July 2008 census, and 1,008 at the October 2007 census. There were 92 patients delayed for over six weeks in the October 2008 census. This compares with 44 at the July 2008 census and 425 at the October 2007 census.

It should be noted that for most patients, any delay in discharge is of a relatively short duration; such patients are therefore unlikely to appear in quarterly census figures. The varied distribution of durations may be influenced by specialty and case mix differences, differences in local discharge planning agreements, and the availability of local care facilities (care home places etc).

[20] http://www.isdscotland.org/isd/servlet/FileBuffer?namedFile=oct08pub.pdf&pContentDispositionType=inline (accessed December 2008).

5.1 OUTCOMES – NUMBER OF DISCHARGES FACILITATED BY THE USE OF TDP FUNDS

Partnerships were asked to use local knowledge to estimate the number of delayed discharges of any duration (used as a proxy for increasing the speed of discharge) that had been shortened during each quarter due to the use of TDP funds.

5.1.1 Progress in Facilitating Hospital Discharge

By the end of 2007/08, 20 Partnerships reported that TDP funds had increased the speed of discharge from hospital for 517 telecare users. These savings were made across 21 projects and across a number of different client groups, as shown in Table 5.1.

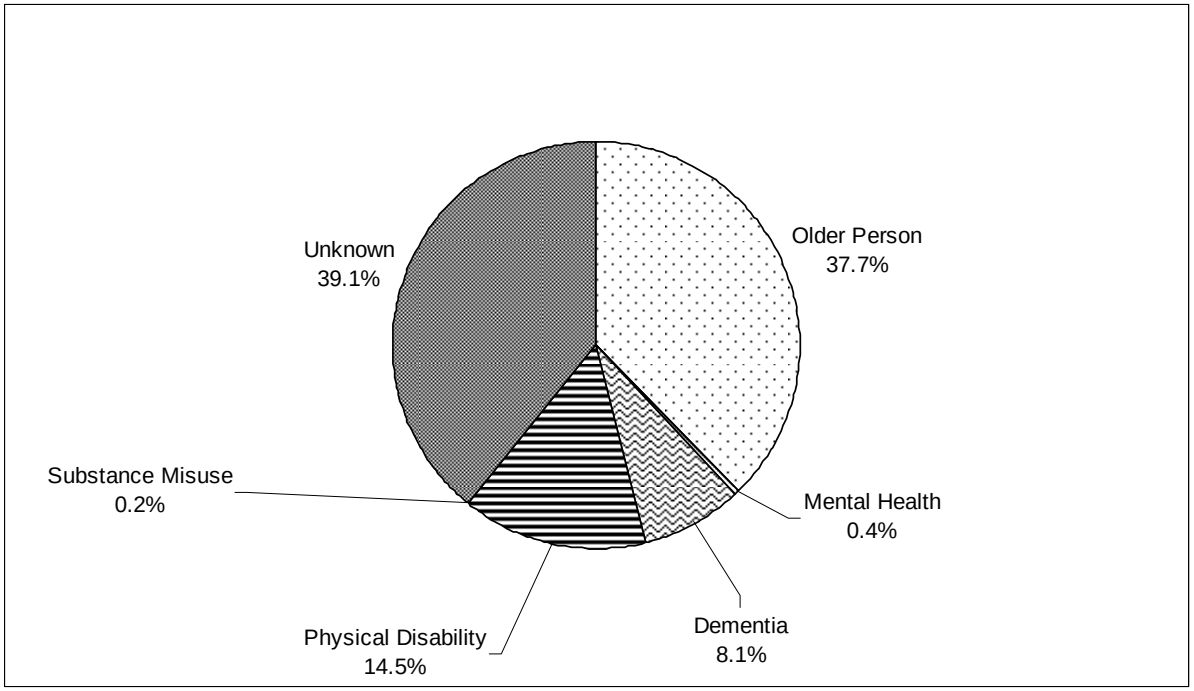
Table 5.1: Cumulative progress against facilitating hospital discharge

	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Number of Partnerships (projects)	7 (7)	12 (12)	16 (17)	20 (21)
Client Group				
Older Person	33	44	136	195
Mental Health	1		1	2
Dementia	8	9	28	42
Physical Disability	1	11	41	75
Learning Disability	-	-	-	-
Substance Misuse	1	1	1	1
Child (under 16)	-	-	-	-
Unknown	4	46	201	202
TOTAL	**48**	**111**	**408**	**517**

The client category for nearly 40% of all those whose speed of discharge was facilitated by TDP funds was not reported by Partnerships. However, overall, it is reported that more than a third (37.7%) of the clients whose speed of discharge from hospital was increased by the use of TDP funds were older people. If it is assumed that all people with dementia are older people[21], then this proportion rises to nearly a half (45.8%). Figure 5.1 shows the breakdown of discharges facilitated by TDP funds for the different client groups.

[21] See footnote 16.

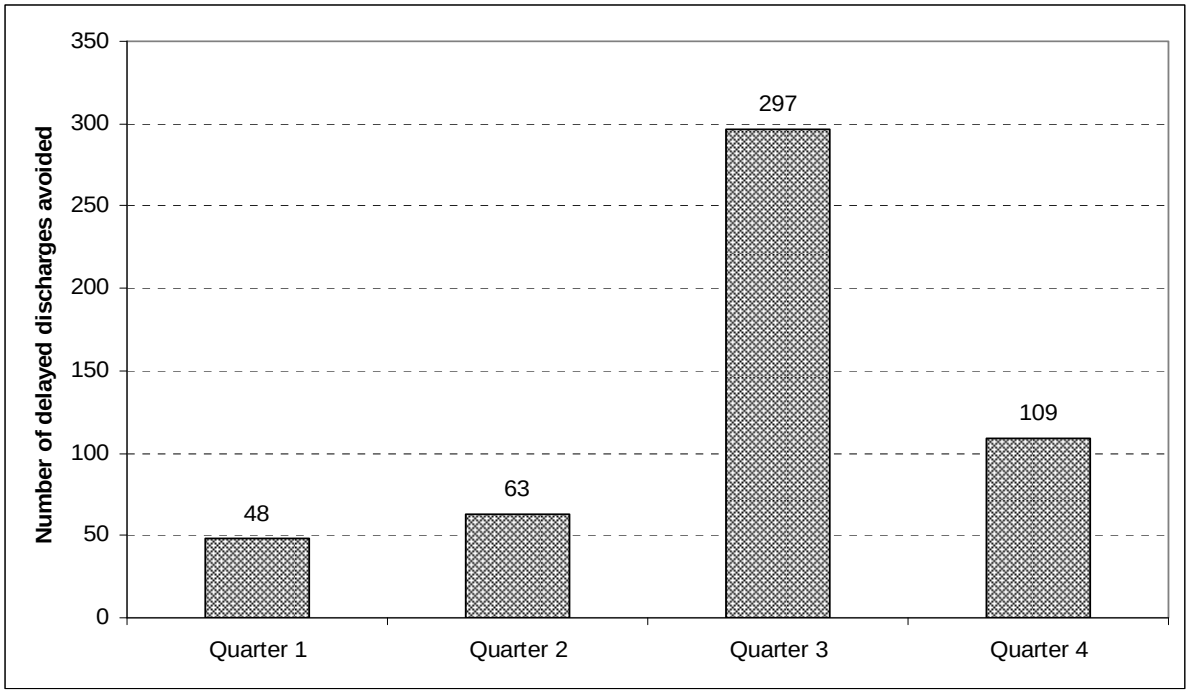
Figure 5.1: Distribution of categories of clients for whom discharge from hospital was facilitated by TDP funds*



* *When compared with Figure 5.3, it appears that a disproportionate number of bed days were saved for clients in the older people category, compared with number of discharges facilitated in this client group. This is because some Partnerships reported the client group for bed days saved but not for facilitated discharges.*

Study of the number of hospital discharges facilitated by TDP funds in each quarter shows that only limited progress was made in Quarters 1 and 2 (48 and 63 discharges respectively). The largest number of delayed discharges prevented or reduced by TDP funds was reported in Quarter 3 (297 discharges), with the level falling to 109 in Quarter 4. Figure 5.2 provides a graphical presentation of these figures.

Figure 5.2: Number of hospital discharges facilitated by Quarter (2007/08)



The number of discharges facilitated by the use of TDP funds varied considerably across Partnerships for many reasons, including the particular focus of local telecare projects and the speed with which they were implemented.

5.2 EFFICIENCIES – BED DAYS SAVED THROUGH DISCHARGES BEING FACILITATED BY TDP FUNDS

5.2.1 Progress in Bed Days Saved through Hospital Discharges being Facilitated

Partnerships were asked to estimate the number of hospital bed days saved through hospital discharges being facilitated by TDP funds. For example, a Partnership might estimate that three patients could each be discharged a week sooner than they would otherwise have been discharged in the absence of the TDP funds. This would give a total saving of three weeks (or 21 days). Where local information on estimated length of stay was not available, Partnerships were advised to use the Health Board specific figures for length of stay for different specialties which are published in the *Costs Book 2007*[22]. Where Partnerships were unable to make estimates, YHEC assumed a saving of 4.6 days per prevented delayed discharge. This figure is based on the average length of stay for General Medicine (excluding long-stay) reported in the *Costs Book 2008*[23]. It is recognised that this approach may be conservative.

[22] Information Services Division Scotland. *Costs Book 2007.* Available from http://www.isdscotland.org/isd/5800.html (accessed December 2008).
[23] Information Services Division Scotland. *Costs Book 2008*. Available from http://www.isdscotland.org/isd/4434.html (accessed December 2008).

Table 5.2 shows cumulative progress in terms of bed days saved. The values given by Partnerships for the estimated number of bed days saved for each facilitated discharge ranged from 1 day to 66.6 days, with the mean value being 15 days.

Table 5.2: Bed days saved due to discharges being facilitated by the use of TDP funds - cumulative progress

	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Number of Partnerships (projects)[24]	8 (8)	13 (13)	16 (17)	20 (21)
Client Category				
Older Person	538	1,325	3,426	4,184
Mental Health	7	7	7	15
Dementia	49	49	217	308
Physical Disability	37	103	278	405
Learning Disability	-	-	-	-
Substance Misuse	7	7	7	7
Child (under 16)	-	-	-	-
Unknown	395	706	695	749
TOTAL	**1,033**	**2,197**	**3,991**	**5,668**

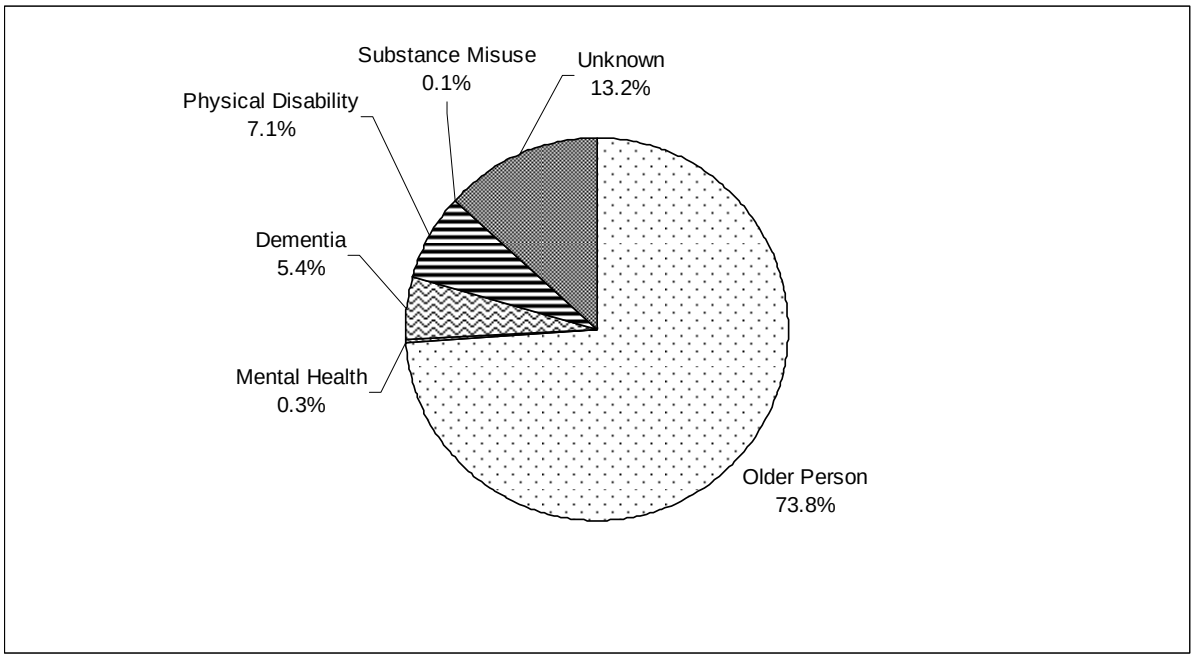
* *Prior to Quarter 3 one of the Partnerships was unable to provide information on bed days saved due to facilitated discharges and an estimate for this was made by the researchers, using the assumptions reported in Table 10.1. From Quarter 3 onwards this information was supplied directly by the Partnership, showing the YHEC figure to be a significant underestimate for their local circumstances. The reported increase in bed days from Quarter 2 to Quarter 3 in part reflects this.*

Figure 5.3 shows that nearly three-quarters (73.8%) of the saved bed days were due to facilitating discharges for older people. If it is assumed that all people with dementia are older people[25], then this proportion rises to almost four-fifths (79.2%).

[24] The numbers of Partnerships and projects given for Quarters 1 and 2 in Tables 5.1, 5.2 and 10.3 differ because one Partnership provided only number of bed days saved, and not number of discharges saved for these periods.

[25] See footnote 16.

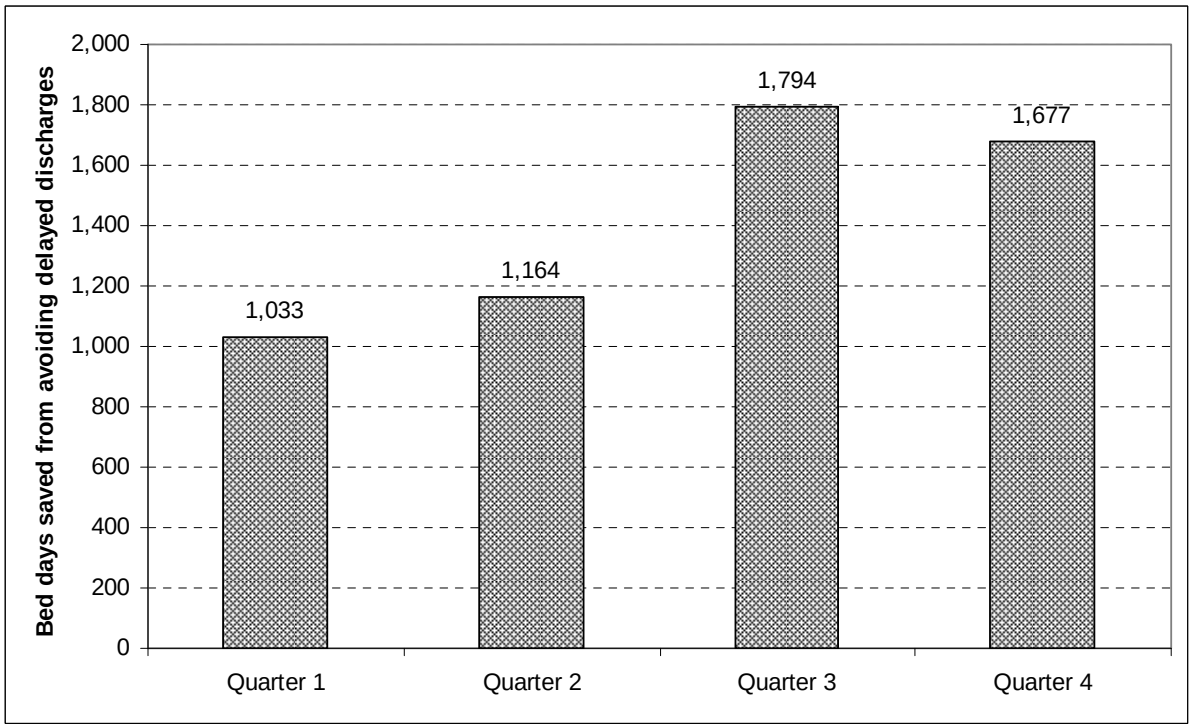
Figure 5.3: Distribution of categories of clients for whom discharges were facilitated by the use of TDP funds



* *When compared with Figure 5.1, it appears that a disproportionate number of bed days were saved for clients in the older people category, compared with the number of discharges facilitated in this client group. This is because some Partnerships reported the client group for bed days saved but not for facilitated discharges.*

Figure 5.4 shows the number of days saved in each quarter through facilitating discharges.

Figure 5.4: Number of bed days saved in each quarter (2007/08)



Section 6: Objective 3 – Reduce the Use of Care Homes

Key Points

- By the end of 2007/08, 23 Partnerships reported having avoided care home admissions, with these savings being made across 26 projects;
- During this period it is estimated that the number of care home admissions was reduced by 518 (and by 61,993 care home bed days);
- The scale of these achievements varied considerably across Partnerships;
- Over half of the beneficiaries were older people – telecare appears to have been particularly successful at preventing (or possibly just delaying) admission to a care home for people with dementia.

Box 6 1: Context

A Scottish Government[26] report published in 2007 reported that the vast majority - over 95% - of Scotland's over 65s live at home, with 4% (33,700) in care homes and 0.4% (3,200) in long-stay hospital care.

Scottish Government data[27] also shows that in March 2007 there were 944 care homes for older people. These were run or owned by the following bodies:

- 178 (19%) were run by a Local Authority or by the NHS;
- 626 (66%) were privately owned; and
- 140 (15%) were in the voluntary sector.

The number of care homes is falling. In total, there were 116 fewer homes for older people in March 2007 than in March 2000 (when there were 1,060 such homes) and 17 fewer than in March 2006.

In total, care homes provided 37,301 registered places in March 2007, which represents 44.5 places per 1,000 population. These comprise:

- 5,408 places (14%) in the Local Authority/ NHS sector;
- 27,712 places (74%) in the private sector; and
- 4,181 places (11%) in the voluntary sector.

Between March 2000 and March 2007 the total number of registered places fell by 1,903 (4.9%). Additionally, over this same period the number of residents fell by 1,284 (3.7%) from 34,457 to 33,173.

[26] Scottish Government. *All Our Futures (Chapter 6).* 2007. Available from http://www.scotland.gov.uk/Publications/2007/03/08143924/6 (accessed December 2008).
[27] http://www.scotland.gov.uk/Publications/2007/11/26142330/2 (accessed December 2008).

6.1 OUTCOMES – CARE HOME ADMISSIONS AVOIDED

6.1.1 Progress in Care Home Admissions Avoided

Partnerships were asked to use local knowledge to estimate the numbers of care home admissions that had been avoided due to the use of TDP funds.

By the end of 2007/08, 23 Partnerships reported having used TDP funds to avoid care home admissions. These savings were made across 26 projects and across a number of different client groups, as shown in Table 6.1.

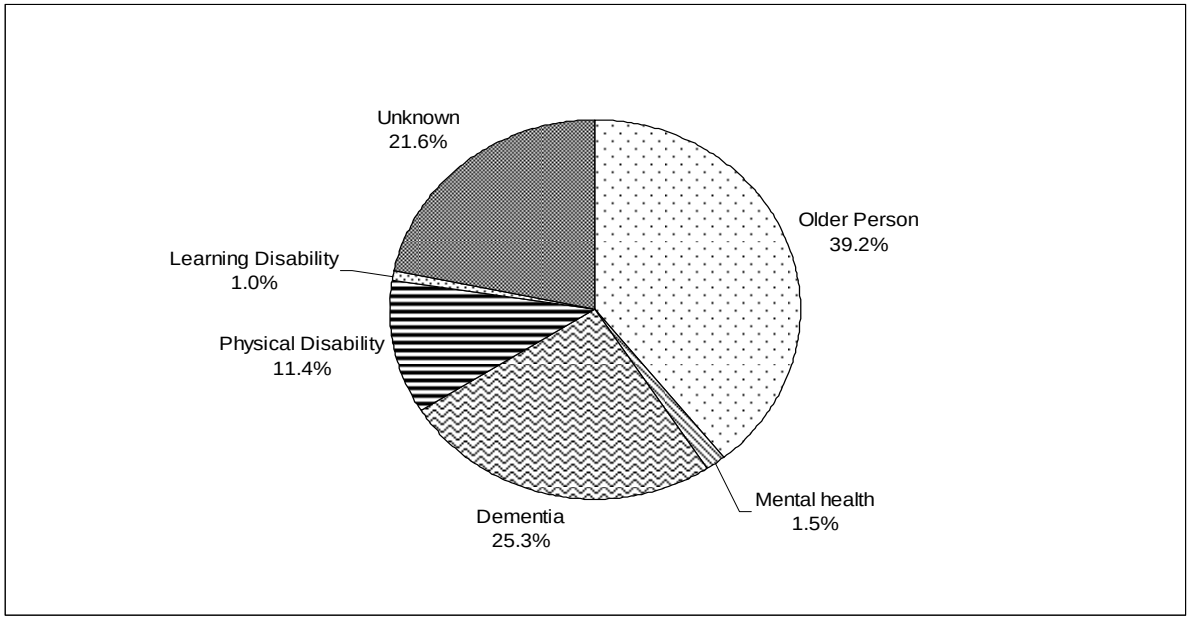
Table 6.1: Cumulative progress in reducing the number of care home admissions

	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Number of Partnerships (projects)	10 (12)	14 (16)	19 (22)	23 (26)
Client Group				
Older Person	22	31	101	203
Mental Health	-	1	3	8
Dementia	23	35	97	131
Physical Disability	2	7	49	59
Learning Disability	-	-	2	5
Substance Misuse	-	-	-	-
Child (under 16)	-	-	-	-
Unknown	16	79	80	112
TOTAL	**63**	**153**	**332**	**518**

About two-fifths (39.2%) of clients for whom a care home admission was avoided were older people. If it is assumed that all people with dementia are older people[28], then this proportion rises to almost two-thirds (64.5%). Further details are shown in Figure 6.1.

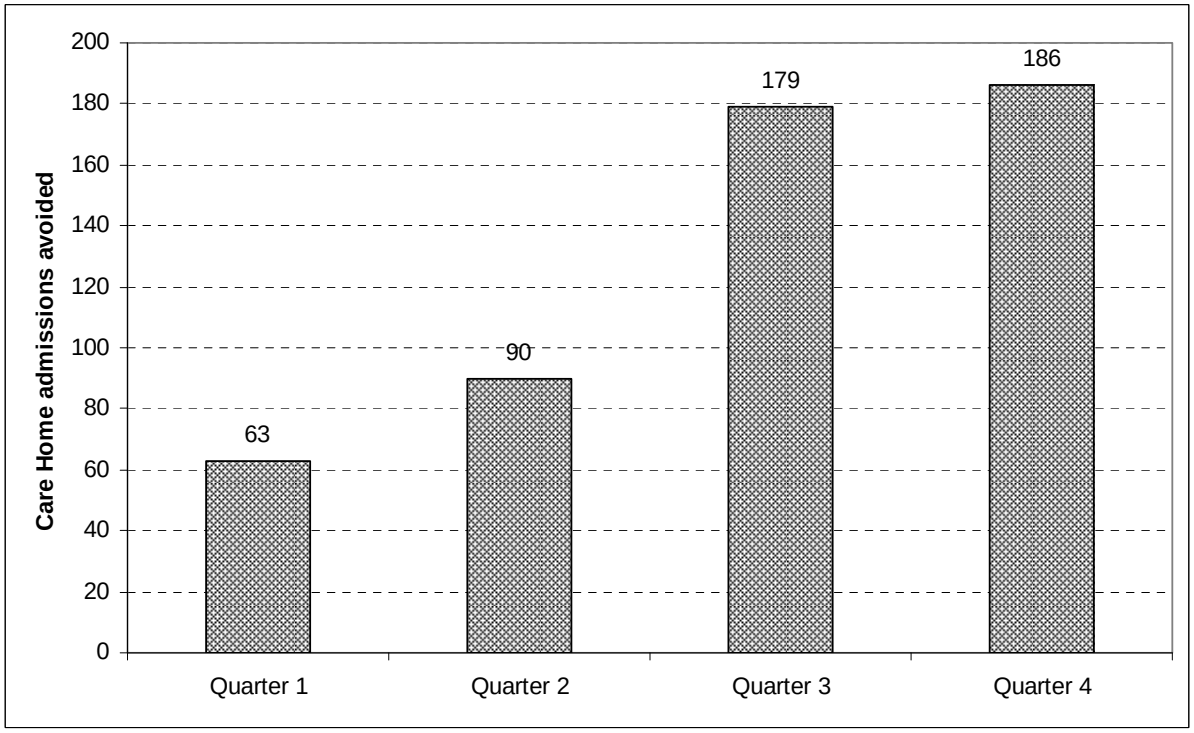
[28] See footnote 16.

Figure 6.1: Distribution of categories of clients for care home admissions were avoided



The number of admissions avoided in Quarter 2 was similar to the number avoided in Quarter 1. The levels of admissions avoided in Quarters 3 and 4 were also similar but were a little more than twice as high as those observed in the first two quarters. Figure 6.2 provides further details.

Figure 6.2: Quarterly reduction in number of care home admissions avoided



The number of care home admissions avoided by the use of TDP funds varied considerably across Partnerships for many reasons, including the particular focus of local telecare projects and the speed with which they were implemented.

6.2 EFFICIENCIES – CARE HOME BED DAYS SAVED

6.2.1 Progress in Care Home Bed Days Saved

Having made estimates of the number of care home admissions avoided Partnerships were asked to use local knowledge to estimate the associated number of care home bed days that had been saved during each quarter due to the use of TDP funds. These estimates relate not only to new TDP-funded clients in a quarter but also to TDP-funded clients recruited during previous quarters. For example, if a Partnership estimated that five admissions (and a total of, say, 40 weeks of care) had been prevented for new clients and that 15 existing clients would otherwise have spent the entire quarter in a care home (for a total of 15 x 13 = 195 weeks), then calculations would relate to a total of 235 prevented care home weeks for that quarter. In those cases where figures were not provided by Partnerships, YHEC took a pragmatic approach and assumed that each new TDP client in a quarter avoided 6.5 weeks in a care home (i.e. half that period). In subsequent quarters YHEC assumed that 90% of those clients carried over from the previous quarter had avoided 13 weeks in a care home (i.e. the whole quarter). Using a rate of 90% makes allowance for some client deaths and also for cases where, for example, after a relatively short trial period it was found that telecare did not fulfil a particular client's needs or where an adverse event (e.g. a stroke) meant that a care home admission was the most appropriate method of providing client care[29].

Table 6.2 shows cumulative progress in terms of care home bed days saved.

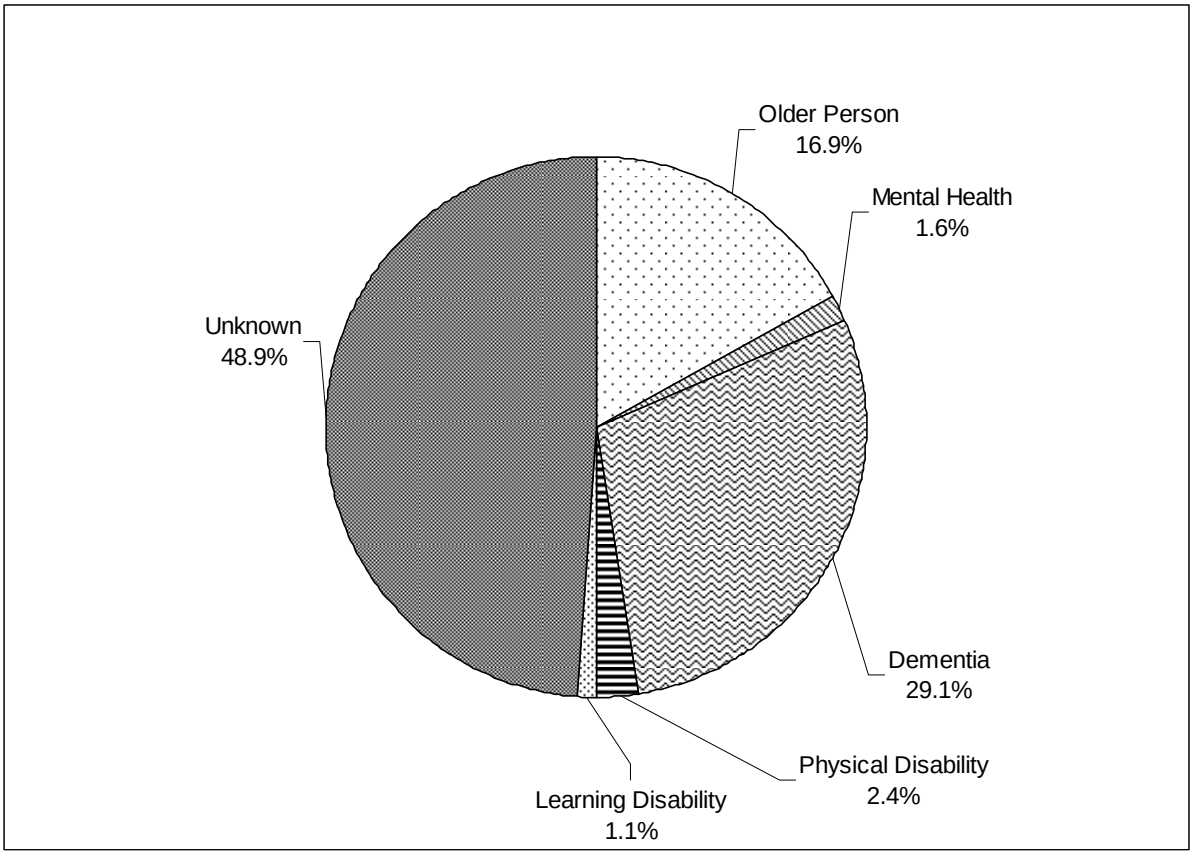
Table 6.2: Care home bed days saved - cumulative progress

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Number of Partnerships (projects)	10 (12)	14 (16)	19 (22)	23 (26)
Client Category				
Older Person	1,041	1,564	6,438	10,501
Mental Health	-	14	894	1,002
Dementia	1,505	5,310	11,925	18,021
Physical Disability	65	291	580	1,481
Learning Disability	-	-	386	657
Substance Misuse	-	-	-	-
Child (under 16)	-	-	-	-
Unknown	2,518	6,548	8,169	30,331
TOTAL	**5,129**	**13,727**	**28,392**	**61,993**

[29] A pragmatic approach was required due to the lack of published evidence. This approach, although reasonable for a short period (i.e. less than a year) would not be suitable for a longer period where a greater percentage of TDP clients would be expected to take up telecare or where death due to old age could be expected. Long-term client-level data collection is required to establish a more robust estimate for the length of time telecare can help keep clients with different conditions out of care homes.

Figure 6.3 shows that just over a quarter (29.1%) of the saved care home bed days were due to admissions avoided by people with dementia and just over a sixth (16.9%) were due to admissions avoided by older people. If it is assumed that all people with dementia are older people[30], then this proportion rises to almost a half (46.0%).

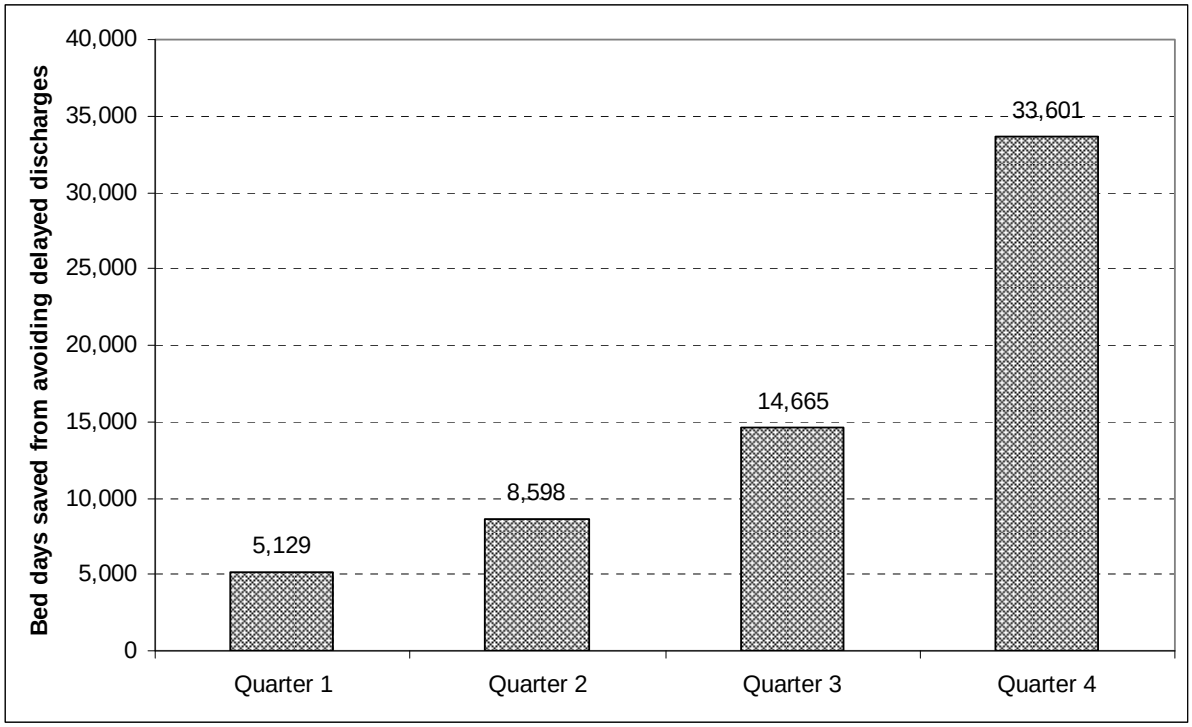
Figure 6.3: Distribution of categories of clients for whom care home admissions were avoided



The estimated number of care home bed days saved in each quarter rose from 5,129 in Quarter 1 to 33,601 in Quarter 4, as shown in Figure 6.4.

[30] See footnote 16.

Figure 6.4: Number of bed days saved in each quarter (2007/08)



Section 7: Objective 4 – Improve the Quality of Life for Users of Telecare Services

Key Points

- Questionnaires designed by YHEC were returned by 461 users in 19 Partnerships;
- The information from these has been supplemented by other information from some Partnerships;
- The YHEC questionnaires showed that about three-quarters (74.4%) of respondents were new users and the other quarter were using enhanced telecare equipment;
- Just over half (54.4%) felt that their current quality of life was either "good" or "very good";
- About three-fifths (60.5%) felt that their current quality of life was either "a bit better" or "much better" than before they had their equipment; about a third (34.6%) thought that it had "stayed the same" and less than one-in-twenty (4.9%) respondents thought that it was worse;
- In terms of telecare's impact on specific aspects likely to affect users' quality of life:
  - Over half (55.2%) of the respondents felt that their health had not changed, whilst slightly more than half of the other respondents (comprising 27.1% of the total) thought that their health had improved;
  - Almost all (93.3%) respondents felt safer;
  - Over two-thirds (69.7%) felt more independent;
  - Very few (3.5%) felt lonelier;
  - Four-fifths (82.3%) either "disagreed" or "strongly disagreed" that they felt more anxious and stressed;
  - Most (87.2%) thought that their families now worried less about them;
  - About two-fifths (40.8%) felt that their equipment had not affected the amount of help they needed from their family, whilst about one-third (32.8%) felt that they needed less help;
- Respondents were generally very positive about telecare services (this is further illustrated by a variety of quotations in Appendix I);
- Overall, telecare services have generally had significant positive impacts on the quality of life of users.

7.1 DATA COLLECTION

YHEC designed a questionnaire to collect information on the extent to which users felt that their quality of life had been improved because of the telecare services they were receiving. The questionnaire covered a variety of aspects that were considered to affect the quality of respondents' lives. A copy of the YHEC questionnaire for users of telecare services is included in Appendix F.

Partnerships were invited to participate in this element of the evaluation by sending a copy of the questionnaire to a maximum of 100 service users[31] on YHEC's behalf. This method of distribution was used to ensure client confidentiality, as YHEC was not provided with the names and/or addresses of any service users. Recipients were provided with a Freepost envelope so they could return their completed questionnaire directly to YHEC. Subsequently, YHEC provided each Partnership with a short report summarising the information in the returns received from its service users.

Five Partnerships decided to include YHEC's questions in their own local questionnaires (which explored a wider range of issues) and sent the relevant results back to YHEC for inclusion in the overall analysis.

A total of 461 completed service user questionnaires were returned to YHEC from 19 Partnerships[32]. It is not possible to determine a response rate, as the researchers do not know how many questionnaires were distributed by each Partnership. This will have depended upon local progress with implementing telecare, which in turn will have been influenced by the simplicity or complexity of the equipment being installed and the types of client groups receiving telecare equipment. The minimum number of returned questionnaires for a Partnership was two (with ten or fewer returns for four Partnerships) and the maximum number was 54 (with 50 or more returns from five Partnerships).

7.2 TYPES OF RESPONDENT

The questionnaire recognised that people have telecare equipment in their homes for many different reasons and that sometimes additional equipment is provided because of changing needs. As shown in Table 7.1, almost three-quarters (74.4%) of respondents who answered this question were new users of telecare, with slightly less than a quarter (23.8%) having had their existing equipment upgraded and improved. A small proportion of respondents (fewer than 2%) had become users of telecare due to moving into accommodation (e.g. Sheltered Housing) that already included such equipment.

[31] Partnerships were advised how to randomly select 100 service users if they has more than 100 telecare clients.

[32] Questionnaires were retuned by 21 Partnerships, but the returns from two have been excluded from the quantitative analysis because some of the questions had been reworded.

Table 7.1: Statement selected as most closely reflecting the respondent's situation

	Number	Percent (%)*
I am a new user of telecare equipment, which has been installed in my home for the first time.	329	74.4
I have recently had the existing telecare equipment in my home upgraded and improved.	105	23.8
I have moved into accommodation (e.g. Sheltered Housing) which already included telecare equipment.	8	1.8
Number of responses	**442**	**100.0**
Number of non-responses	19	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

Respondents were also asked about the length of time they had been using their (most recent) telecare equipment. Table 7.2 shows that almost half (48.3%) had been using their equipment for more than six months, whilst almost a quarter (24.0%) had used it for one-to-three months and just over a fifth (22.2%) for four-to-six months.

Table 7.2: Period of time for which respondents have been using their (most recent) telecare equipment

	Number	Percent (%)*
Less than 1 month	25	5.5
1 – 3 months	109	24.0
4 – 6 months	101	22.2
More than 6 months	219	48.3
Number of responses	**454**	**100.0**
Number of non-responses	7	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.3 CHANGES IN QUALITY OF LIFE

Two questions focused directly on assessing any changes to respondents' quality of life (as defined by the respondent) as a consequence of their telecare equipment. Table 7.3 shows how respondents currently rate their quality of life, whilst Table 7.4 shows the extent to which they feel that telecare equipment has changed their quality of life.

Table 7.3 shows that about one-fifth (19.8%) rate their present quality of life as "very good", whilst about a third (34.6%) rate it as "good" and another third (33.7%) classified it as "alright". Relatively few respondents thought that their current quality of life was "bad" (10.5%) or "very bad" (1.4%). Although some Partnerships had stringent acceptance criteria for receiving telecare equipment (e.g. only issuing it to those assessed as having critical or substantial needs for care and support), others used their monies for more preventive purposes, and therefore operated less restrictive criteria for receiving equipment funded by the TDP. This means that the health status of telecare recipients would vary considerably, which could have affected how respondents described their quality of life.

Overall, the survey data show that over half of the respondents (54.4%) feel that their quality of life is currently “good” or “very good”.

Table 7.3: “Thinking about the good and bad things that make up your quality of life, how would you rate the quality of your life at present?”

	Number	Percent (%)*
Very good	87	19.8
Good	152	34.6
Alright	148	33.7
Bad	46	10.5
Very bad	6	1.4
Number of responses	**439**	**100.0**
Number of non-responses	22	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

With regard to recent changes, the data in Table 7.4 show that about three-fifths of the respondents (60.5%) felt that their current quality of life was either “a bit better than it used to be” (just over a third; 34.1%) or “much better than it used to be (just over a quarter; 26.4%) compared with the situation before their telecare equipment was installed. Approximately a third (34.6%) of respondents felt that it was “about the same”, and less than one-in-twenty (4.9%) thought that it was either “a bit” or “a lot” “worse than it used to be”. Although it is not possible to attribute the positive (or indeed the negative) changes directly to the telecare equipment, these data nevertheless strongly suggest that its installation has generally had a positive or a neutral impact on the recipients’ quality of life.

Table 7.4 “Thinking back to the time before your (most recent) telecare equipment was installed, do you think that your quality of life now is …”

	Number	Percent (%)*
Much better than it used to be	119	26.4
A bit better than it used to be	154	34.1
About the same	156	34.6
A bit worse than it used to be	17	3.8
A lot worse than it used to be	5	1.1
Number of responses	**451**	**100.0**
Number of non-responses	10	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.4 OTHER IMPACTS OF TELECARE

7.4.1 Health

Respondents were asked specifically about the impact of their telecare equipment on their health, as this is felt to be a key determinant of quality of life. They were asked about the extent to which they agreed or disagreed with a statement about this impact.

As Table 7.5a shows, although more than half of the respondents (55.2%) did not think that the telecare equipment had made any difference to their health, a higher proportion of respondents "agreed" or "strongly agreed" that it had made a positive difference (27.1%) than "disagreed" or "strongly disagreed" with the statement (17.8%). However, it should also be noted that about a quarter of the respondents (117; 25.4%) did not answer this question.

Table 7.5a: "My health has been better since the telecare equipment was installed"

	Number	Percentage (%)*
Strongly agree	24	7.0
Agree	69	20.1
Neither agree nor disagree	190	55.2
Disagree	58	16.9
Strongly disagree	3	0.9
Number of responses	**344**	**100.0**
Number of non-responses	117	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.4.2 Feeling Safer

Many people, especially older people, can feel vulnerable and unsafe when living in the community (especially if they live alone), and one of the perceived benefits of telecare is that it makes people feel safer (and thus improves their quality of life). To test this view, respondents were asked about the extent to which they agreed or disagreed with a statement about this impact.

As Table 7.5b shows, almost all (93.3%) of the respondents answering this question indicated that they felt safer because of their telecare equipment. Almost two-fifths of the respondents (38.4%) "strongly agreed" with the statement, whilst over half (54.9%) "agreed" with it.

Table 7.5b: I feel safer at home because of my telecare equipment

	Number	Percentage (%)*
Strongly agree	160	38.4
Agree	229	54.9
Neither agree nor disagree	19	4.6
Disagree	8	1.9
Strongly disagree	1	0.2
Number of responses	**417**	**100.0**
Number of non-responses	44	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.4.3 Feeling More Independent

Another perceived benefit of telecare is that its users feel more independent because of it. This may be because it enables them to remain living in the community rather than moving into residential or nursing care. They may require less input from statutory services such as home care check visits or sleepover care, which they can find intrusive. They may also feel that the equipment reduces pressures on their family and friends (which is explored below as a separate potential benefit). Respondents were asked about the extent to which they felt that their telecare equipment had increased their feelings of independence.

As Table 7.5c shows, almost seven of every ten (69.7%) respondents answering the question either “strongly agreed” (just under a quarter; 23.6%) or “agreed” (slightly less than half; 46.1%) that they felt more independent. About a quarter (24.1%) felt that it had not made a difference, and about one-in-twenty either “disagreed” or “strongly disagreed” that they felt more independent. However, it should also be noted that a fifth of respondents (92; 20.0%) did not answer this question.

Table 7.5c: I feel more independent because of my telecare equipment

	Number	Percentage (%)*
Strongly agree	87	23.6
Agree	170	46.1
Neither agree nor disagree	89	24.1
Disagree	21	5.7
Strongly disagree	2	0.5
Number of responses	**369**	**100.0**
Number of non-responses	92	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.4.4 Feeling More Lonely

Although, as indicated above, telecare users may feel more independent if they require fewer home check visits and similar interventions, some people (especially those who are socially isolated) may feel lonelier as result. They may also feel lonelier if they are visited less often by their family. This possibility was explored by asking them about the extent to which their telecare equipment had made them feel more lonely.

Table 7.5d shows that almost four-fifths of those answering this question (78.8%) either "disagreed" (just over half; 52.4%) or "strongly disagreed" (just over a quarter; 26.4%) that they felt more lonely because of their telecare equipment. Slightly over one-in-six (17.7%) respondents felt that it had not made any difference, whilst very few respondents (3.5%) "strongly agreed" or "agreed" that they felt lonelier because of their telecare equipment. However, it should be noted that almost a third of respondents (150; 32.5%) did not answer this question.

Table 7.5d: I feel more lonely because of my telecare equipment

	Number	Percentage (%)*
Strongly agree	6	1.9
Agree	5	1.6
Neither agree nor disagree	55	17.7
Disagree	163	52.4
Strongly disagree	82	26.4
Number of responses	**311**	**100.0**
Number of non-responses	150	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.4.5 Feeling More Anxious and Stressed

Although there seems to be a general perception that telecare users feel less stressed and anxious because of their equipment, there is also the possibility that some may find it intrusive and they may worry about setting it off accidentally or about resetting it in the event of a power cut (which generates a call from the response centre). Respondents were therefore asked to indicate the extent to which they felt more anxious and stressed because of their equipment[33].

[33] It should also be noted that this question (and the preceding one) were worded with the expectation that most respondents would disagree rather than agree. This was to encourage respondents to read each question rather than to just tick "agree" or "strongly agree" for each question. Two Partnerships felt that the YHEC layout was confusing and reworded these specific questions.

As Table 7.5e shows, about four-fifths (82.3%) of those responding to this question either "disagreed" (slightly more than one half; 51.6%) or "strongly disagreed" (almost one third; 30.7%) that their telecare equipment made them feel more anxious and stressed. About one-in-ten (11.5%) felt that it made no difference to their stress and anxiety levels. However, a small proportion of respondents (6.3%) stated that their equipment had increased their feelings of anxiety and stress. It should also be noted that slightly less than a third of respondents (139; 30.2%) did not answer this question.

Table 7.5e: I feel more anxious and stressed because of my telecare equipment

	Number	Percentage (%)*
Strongly agree	5	1.6
Agree	15	4.7
Neither agree nor disagree	37	11.5
Disagree	166	51.6
Strongly disagree	99	30.7
Number of responses	**322**	**100.0**
Number of non-responses	139	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.4.6 Think their Family Needs to Worry Less

Many older people and people with disabilities are concerned about being a burden to their family, who may worry about their safety and wellbeing. This can result in family members making frequent checks by telephone or via visits, which the older person (or the person with disabilities) may find intrusive and the family may find to be very demanding on their time. Another perceived benefit of telecare is that users may feel that their family will worry about them less, because the user knows that the family will be contacted in the event of a problem[34]. This aspect was also explored in the carers' questionnaire (which is discussed in Section 8). To explore this potential benefit of telecare, users were asked to indicate the extent to which they thought the equipment meant that their family worried less.

As Table 7.5f shows, most of the respondents to this question (87.2%) either "strongly agreed" (a third; 33.4%) or "agreed" (slightly over half; 53.8%) that they thought their family worried less about them now that they had the equipment. About one-in-ten (8.9%) felt that it made no difference, whilst less than one-in-twenty (3.9%) either "disagreed" or "strongly disagreed" that they thought their family worried less about them since the equipment was installed.

[34] Although this will also depend upon the type of locally-available response service, as some users may be reluctant to use their Telecare equipment (at least at certain times of the day and/or night), as they do not want their family to be bothered.

Table 7.5f: I think that my family is less worried about me now that I have the telecare equipment

	Number	Percentage (%)*
Strongly agree	131	33.4
Agree	211	53.8
Neither agree nor disagree	35	8.9
Disagree	14	3.6
Strongly disagree	1	0.3
Number of responses	**392**	**100.0**
Number of non-responses	69	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.4.7 Think their Family Needs to Help them Less

The final aspect that was explored with the telecare users was the extent to which they thought that their family needed to help them less now than they did before the equipment was installed.

Table 7.5g shows that the responses to this question are highly symmetrical. About two-fifths of the respondents (40.8%) felt that their telecare equipment had not affected the amount of help that they needed from their family, about a quarter (24.9%) "agreed" that they needed less help and just over a fifth (21.7%) "disagreed" with this statement. Although relatively few respondents "strongly agreed" or "strongly disagreed", slightly more (7.9%) fell into the former category than the latter one (4.7%). It should also be noted that just over a quarter of respondents (120; 26.0%) did not answer this question.

Table 7.5g: My family need to help me less because of my telecare equipment

	Number	Percentage (%)*
Strongly agree	27	7.9
Agree	85	24.9
Neither agree nor disagree	139	40.8
Disagree	74	21.7
Strongly disagree	16	4.7
Number of responses	**341**	**100.0**
Number of non-responses	120	
Total	**461**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

7.5 OTHER MATERIAL FROM THE YHEC QUESTIONNAIRES

The users' questionnaire finished with three open questions, which explored what users liked most and least about their telecare equipment and if there were any other ways that they felt it had affected their lives. The findings from these questions are presented and discussed in Appendix I.

Although the respondents covered a wide range of aspects, most liked their equipment because it made them feel safer and more secure knowing that they can contact someone easily in an emergency (such as a fall from which they are unable to get up without help). This made them feel more confident and independent. Many respondents stated that there was *"nothing to dislike about the equipment"*, although some were worried about setting it off accidentally and many found neck pendants inconvenient to wear. A few respondents commented that their equipment went off too easily. Those with hearing problems could not always hear the person from the response centre and some people with dementia found the equipment confusing. Several respondents commented on the helpfulness and pleasantness of the staff associated with the service.

7.6 INFORMATION FROM OTHER SOURCES

7.6.1 Quarterly Returns

Each of the Quarterly Returns asked the Partnerships to provide information about the impact of the TDP on service users and carers. Relatively little feedback was achieved in this way, with Partnerships often stating that they would be exploring these aspects via the YHEC questionnaires. Some anecdotal feedback was received. One Partnership wanted to use telecare to introduce a virtual care village model within an existing sheltered housing complex. This Partnership reported in one of its Quarterly Returns that it felt that the consultation with service users, their families and staff about the introduction of telecare had stimulated debate, promoted 'community spirit', and provided a driver for change. Most of the other relevant information provided in the Quarterly Returns was consistent with the views reported above and in Section 8 (and in Appendices I and J).

7.6.2 Other Sources

In addition, specific separate feedback (e.g. copies of local reports) was received from several Partnerships that had conducted their own surveys or evaluations. The findings from any questions exploring telecare's impact on users' quality of life were generally very similar to those reported above for the YHEC questionnaire. Some of these surveys also included questions about aspects of specific local interest, such as the installation process, staff attitudes and helpfulness, ease of use of the equipment, and/or the response service.

An independent evaluation undertaken for one of the Partnerships also raised some interesting issues relating to the use of home-based technology, such as environmental control systems (ECS). Whilst finding that *"the impact on users and carers was generally reported as being beneficial"*, it also felt that *"some of the most noticeable changes occurred for users with limited speech and physical movement, due to long-term and degenerative conditions"*. This was illustrated by a quote from an Occupational Therapist:

> *"… I just wanted to let you know how over the moon J and his carer are with his new system. He is absolutely ecstatic – even phoning his granddad and his cousin. I have never, in nine years, seen his carer looking so relaxed! She can now watch TV in the living room in the evening while J is in control of his own life. Neither of them know how they managed without it."*

Two quotations from the same evaluation show that informal and formal carers can have divergent views on the impact of home-based technology on its users:

> *"The equipment is a waste of money. 'A' does not use it properly and she does not like it."* (Professional Homecarer)

> *"It (the telecare and ECS) is great. My wife (i.e. 'A') can do so much more for herself and I know she can call me if she needs help."* (Informal Carer)

This Partnership found that many professionals felt anxious (and possibly even threatened) by telecare and associated technologies, believing that some users would not have the capacity to use the provided equipment due to not being able to understand it. Their evaluation concluded that such fears were generally unfounded and that the equipment could (with appropriate support) ensure enablement for its users.

One of the Partnerships used some of its TDP monies to develop a local service to provide protection for those experiencing domestic violence. Recipients of this service felt safer in their own homes, with an improved quality of life:

> *"It makes me feel safe at home. I can contact the police more easily and quickly."*

> *"It keeps me safe from my ex and the family and I know someone is there all the time."*

Finally, a considerable amount of feedback on the views of users (and also of their carers) was gathered during the case study visits. This information is covered in Section 13, which addresses the lessons from the case study sites. The implications for telecare services of the views of users and carers are discussed in Section 15, which considers all of the findings from this evaluation.

Section 8: Objective 5 – Reduce the Pressure on (Informal) Carers

Key Findings

- Questionnaires designed by YHEC were returned by 301 carers in 17 Partnerships;
- Almost half (48.4%) of these were completed by daughters (34.1%) or sons (14.3%);
- Most of the others had been completed by other family members, friends and neighbours, although a few had been completed by formal carers (including some from voluntary organisations);
- A slightly higher proportion of respondents currently found their caring role either "quite stressful" or "very stressful" (46.5%) than found it "not really stressful" or "not at all stressful" (36.9%);
- About half (49.3%) of the respondents felt that they were a "bit less stressed than before" the installation of the telecare equipment and a quarter (25.0%) were "much less stressed than before" – therefore three-quarters (74.3%) of the respondents felt that the telecare equipment has reduced the pressures on them by reducing their stress levels;
- Fewer than one-in-twenty (4.3%) felt that their stress levels had increased;
- Time spent with the cared for person had remained about the same for approximately three-quarters (73.0%) of the respondents, with similar proportions spending more time and less time with the cared for person;
- The main reasons for changes in respondents' stress levels seemed in part to depend upon:
  - The characteristics of the cared for person;
  - The type(s) of equipment installed;
  - The type of responder service.
- Carers generally felt that the equipment gave them peace of mind as they worried less (e.g. about falls);
- They felt that people with learning disabilities could enjoy greater independence and that the equipment could enable people with dementia to remain living in the community for longer;
- Even if stress levels had fallen, several respondents highlighted that caring can still be very demanding and stressful (especially if the client will not use their equipment);
- However, many carers were very positive about the service and also very grateful for it.

8.1 DATA COLLECTION

YHEC designed a short postal questionnaire to elicit the views of informal carers of users of telecare services, focusing in particular on the extent to which they felt that telecare services had reduced the pressures associated with being a carer. A copy of this questionnaire is included in Appendix F.

Partnerships were invited to participate in this element of the evaluation by asking their local call/response service to send a copy of the questionnaire to the first-named contact person in their database for a maximum of 100 service users on YHEC's behalf. This method of distribution was used to ensure confidentiality, as YHEC was not provided with the names and/or addresses of any informal carers[35]. Recipients were provided with a Freepost envelope so they could return their completed questionnaire directly to YHEC. Once questionnaires were returned, YHEC provided each Partnership with a short report summarising the information in the returns received from its informal carers.

A total of 301 completed questionnaires were returned to YHEC from 17 Partnerships. It is not possible to determine a response rate as the researchers do not know how many questionnaires were distributed by each Partnership. Furthermore, it is not possible to make any links between responding users and their carers. The minimum number of returned carer questionnaires for a Partnership was one (with ten or fewer returns for five Partnerships) and the maximum number was 41 (with 30 or more returns from three Partnerships).

8.2 TYPES OF RESPONDENT

Carers were asked which of three circumstances most closely reflected the situation of their friend/relative. Over four-fifths (81.9%) indicated that this person was a new user of telecare equipment, compared with slightly less than one-fifth (17.8%) who were caring for a person whose telecare equipment had recently been upgraded and improved. Only one respondent (of the 293 who answered this question) cared for someone who had become a telecare user due to moving into accommodation (e.g. Sheltered Housing) which already included such equipment.

Respondents were also asked to state their relationship with the person for whom they were caring. This question was answered by 287 respondents whose replies are summarised in Table 8.1. Of these, almost half (48.4%) were either daughters (about a third; 34.1%) or sons (one-in-seven; 14.3%). Most of the other carers who are relatives were female.

[35] A drawback of this approach was that some of the first-named respondents were neighbours or key holders rather than informal carers. Nevertheless, it enabled their views to be captured as well as those of family members. Furthermore, these contact details were often the only information known by the Partnerships about informal carers and emergency contacts. In addition, some of the questionnaire respondents were professional carers or from voluntary organisations because they were the first-named contact for the user.

Table 8.1: Relations of carer with telecare service user

Relationship with telecare user	Number	Percent (%)
Daughter	98	34.1
Son	41	14.3
Friend	30	10.5
Wife	22	7.7
Neighbour	15	5.2
Sister	11	3.8
Daughter-in-law	8	2.8
Niece	7	2.4
Mother	6	2.1
Others	49	17.1

Other respondents were drawn from a wide range of other relatives, including brothers (5), nephews (4), son-in-laws (4), grand-daughters (3), cousins (3), sister-in-laws (3), and a father (1). Some questionnaires were completed by professional or voluntary carers, including support workers (5), support co-ordinators (4), a service manager (1), and a key worker (1).

8.3 CHANGES IN STRESS LEVELS AND TIME SPENT WITH CARED FOR PERSON

The questionnaire was designed to capture the extent to which carers thought that telecare equipment had reduced the pressures on them. It recognised that many carers can find it stressful caring for relatives and friends and they were asked to indicate how stressful they personally were currently finding their caring role.

Their responses are presented in Table 8.2, which shows that approaching half of the respondents to this question (46.5%) found their role as a carer either “very stressful” (about one-in-twelve; 7.1%) or “quite stressful” (about two-fifths; 39.4%). About one-in-six felt that it was “neither stressful nor un-stressful”, whilst about a fifth (21.3%) stated that their role was “not really stressful” and almost one-in-six (15.6%) felt that being a carer was “not at all stressful”.

Table 8.2: Current stress levels associated with role as carer

	Number	Percent (%)*
Very stressful	20	7.1
Quite stressful	111	39.4
Neither stressful nor un-stressful	47	16.7
Not really stressful	60	21.3
Not at all stressful	44	15.6
Number of responses	**282**	**100.0**
Number of non-responses	19	
Total	**301**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

Respondents were then asked to think back to the time before the (most recent) telecare equipment was installed, and to indicate the extent to which they personally now felt more stressed or less stressed. Table 8.3 shows that about three-quarters of the respondents to this question (74.3%) felt that they were either "much less stressed than before" (a quarter; 25.0%) or "a bit less stressed than before" (a half; 49.3%). About a fifth (21.4%) felt that the telecare equipment had made "no difference" to their stress levels, whilst fewer than one-in-twenty (4.3%) felt either "a bit more stressed than before" or "much more stressed than before".

Table 8.3: Changes in stress levels on carers since installation of telecare equipment

	Number	Percent (%)*
Much less stressed than before	70	25.0
A bit less stressed than before	138	49.3
No difference	60	21.4
A bit more stressed than before	10	3.6
Much more stressed than before	2	0.7
Number of responses	**280**	**100.0**
Number of non-responses	21	
Total	**301**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

Respondents were then asked to think back to the time before the (most recent) telecare equipment was installed, and to indicate the extent to which the amount of time they spend with the cared for person had increased or decreased. The responses are summarised in Table 8.4, which shows that about three-quarters (73.0%) of the carers responding to this question felt that the amount of time they spent with the person for whom they were a carer had "stayed about the same". Of the other respondents, about half of them (12.9% of the respondents) thought that they spent more time with the cared for person, whilst the others (14.2%) felt that they spent less time with them. Within these categories, about one-in-ten (9.3%) of those responding to the question felt that the time spent had "slightly increased", whilst about one-in-thirty (3.6%) felt that it had "increased greatly". Similar proportions stated that their time input had "decreased slightly" (11.4%) or "decreased greatly" (2.8%).

Table 8.4: Changes to amount of time spent with cared for person

	Number	Percent (%)*
Increased greatly	10	3.6
Increased slightly	26	9.3
Stayed about the same	205	73.0
Decreased slightly	32	11.4
Decreased greatly	8	2.8
Number of responses	**281**	**100.0**
Number of non-responses	20	
Total	**301**	

* *Percentages are given as percentage of respondents to the specific question not of total number of respondents.*

8.4 REASONS FOR FEELING MORE/LESS STRESSED

The carers' questionnaire finished with four open questions. The first of these asked the carers for the main reasons they felt more stressed or less stressed. The final three questions mirrored those asked of users, and explored what the respondent liked most and least about telecare equipment and if there were any other ways that they felt it had affected the quality of their own lives.

The answers to these questions are presented and discussed in Appendix J. Carers generally felt that the equipment gave them peace of mind as they worried less (e.g. about falls; about wandering; about those being cared for causing a fire). They also felt reassured that they would know quickly if there were any problems. The equipment also enabled some to spend more time with other family members (e.g. their children) and to continue in employment. Some felt that it enabled them to sleep better, which improved their health. Several carers reported that people with learning disabilities were enjoying greater independence (and therefore a more 'normal' life). Some carers felt that the equipment had enabled people with dementia to remain living in the community for longer (although some worried that the users did not really understand how to use the equipment).

The carers' responses clearly depended on their personal circumstances. However, the main reasons for changes in respondents' stress levels seemed to depend upon:

- The physical and/or mental condition of the cared for person: For example, those caring for a person with dementia who is prone to wandering experienced reduced stress levels if the telecare equipment prevented the cared for person from leaving the house, whilst those caring for an older person with a tendency to fall were less stressed because they knew they would be contacted if necessary;
- The type(s) of equipment installed (e.g. neck or wrist pendant; Passive Infra-Red (PIR) movement detectors; smoke, heat and flood detectors): Carers' comments related to a wide range of equipment, and the equipment supplied varied considerably across Partnerships. Those caring for people with dementia, for example, tended to be reassured by smoke, heat and flood detectors, whereas carers of people with other conditions may have found that these items did little to alter their stress levels, but that they were, say, greatly reassured by movement detectors;
- Whether the carer and cared for person shared the same accommodation: Carers living in the same house may feel less anxious about leaving the cared for person alone for a while (e.g. whilst they go to the shops or to see their GP), whilst those not living in the same accommodation may feel less stressed because they do not need to make such frequent checks (e.g. visits and/or telephone calls);
- The type of responder service (e.g. professional responders or calls to alert a named contact): The availability of professional responders tended to reduce carers' stress levels significantly by enabling them to undertake other activities (such as working or going on holiday) due to being confident that they would be contacted in the event of a genuine crisis or emergency. In places where the call centre alerts a named contact in the event of the telecare equipment being

activated, some carers may feel more stressed because they are aware that they could be contacted by the call centre at any time (although many respondents in fact reported that this reduced their stress from pre-telecare levels).

While caring remained very demanding and stressful for many, several respondents highlighted that having telecare equipment helped them to feel more supported. It was also clear that some service users can be fiercely independent and some carers were worried that the provided equipment would not necessarily be used as intended. However, many carers were very grateful for and positive about the telecare service being received by the people for whom they were caring.

Section 9: Objective 6 – Extend the Range of People Assisted by Telecare Services

Key Points

- Most of the projects funded by the TDP have been designed with older people in mind and focus on extending and developing current telecare services;
- During 2007/08 there were 7,902 people in receipt of TDP-funded equipment;
- New clients were predominantly female (62.4%; sex unknown for 5.0% of clients), white (84.5%; ethnicity unknown for 13.8%); and aged over 65 (85%; age unknown for 5.3%);
- Although the majority (63.1%) were classified as 'older people', new users came from a variety of client groups throughout the year, including dementia, learning disability and physical disability (some of whom would also be aged 65 and above);
- The main reasons for providing telecare were to "Minimise client risk" and "Promote client independence" (80.2% of clients);
- The most frequently cited secondary reasons for providing telecare were also to "Minimise client risk" and to "Promote client independence" (57.0% of clients);
- Although the long-term reasons for providing telecare were more varied than the short-term reasons provided, "Minimise client risk" and "Promote client independence" still accounted for the reasons provided for almost a third (32.5%) of clients;
- Over a quarter (27.8%) of the long-term reasons for providing telecare were to "Prevent long-term admission to a care home" and about an eighth (12.4%) were to "Reduce the risk of hospital admission/re-admission".

9.1 CHARACTERISTICS OF TDP-FUNDED CLIENTS

Information collected in the Stage 2 forms shows that all Partnerships had some form of telecare provision prior to funds being made available through the TDP and that this was usually in the form of a community alarm service.

A list of the projects funded by the TDP in 2007/08 can be found in Appendix E. Most of the projects have been designed with older people in mind and focus on extending and developing existing telecare services. A number of Partnerships used the money from the TDP to fund a project manager or to fund telecare promotion or educational activities. Although such projects will not have increased the range of people assisted by telecare in the short term, they will have helped to spread awareness and create knowledge which will help telecare services develop in the future. Other projects funded by the TDP focused on a variety of innovative projects for people aged under 65 years old.

During 2007/08 7,902 people were in receipt of TDP-funded equipment. Not all of these people were in receipt of this equipment for the whole period. At the end of 2007/08 there were 7,487 clients currently in receipt of TDP-funded telecare equipment. The largest number of new clients (3,004) was recruited in Quarter 2, and Quarter 4 saw the largest number of clients leaving the service (181). Table 9.1 shows the numbers of new clients and the number of clients leaving the service during 2007/08.

Table 9.1: New TDP-funded telecare clients and clients leaving the service

Quarter 1		Quarter 2		Quarter 3		Quarter 4	
No. of new clients	No. of clients leaving the service	No. of new clients	No. of clients leaving the service	No. of new clients	No. of clients leaving the service	No. of new clients	No. of clients leaving the service
866	31	3,004	106	2,137	97	1,895	181

The sex and ethnicity characteristics of clients showed a consistent pattern across all of the four quarters. In each quarter approximately 60% - 65% of new clients were female, with approximately 35% - 40% being male (see Table 9.2). Although some Partnerships had difficulty providing ethnicity figures for new clients, the provided figures show that new clients were predominantly white (see Table 9.3). The ethnicity breakdown is not surprising, as 2001 census figures show that 88.1% of people in Scotland are 'White Scottish', with a further 7.4% classifying themselves as 'Other White British'[36].

Table 9.2: Sex of new clients*

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
	No (%)	No (%)	No (%)	No (%)	No (%)
Male	295 (34.0)	919 (30.6)	718 (33.6)	642 (33.9)	2,574 (32.6)
Female	568 (65.6)	1,793 (59.7)	1,330 (62.2)	1,241 (65.5)	4,932 (62.4)
Unknown	3 (0.3)	292 (9.7)	89 (4.2)	12 (0.6)	396 (5.0)
Total	**866**	**3,004**	**2,137**	**1,895**	**7,902**

* *Rounding is the cause of percentages not summing to 100.*

Table 9.3: Ethnicity of new clients*

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
	No (%)	No (%)	No (%)	No (%)	No (%)
White	581 (67.1)	2,570 (85.6)	1,888 (88.3)	1,635 (86.3)	6,674 (84.5)
Asian	2 (0.2)	1 (0.03)	1 (0.05)	3 (0.2)	7 (0.1)
Black	1 (0.1)	-	-	-	1 (0.01)
Other	-	5 (0.2)	89 (4.2)	33 (1.7)	127 (1.6)
Unknown	282 (32.6)	428 (14.2)	159 (7.4)	224 (11.8)	1,093 (13.8)
TOTAL	**866**	**3,004**	**2,137**	**1,895**	**7,902**

* *Rounding is the cause of percentages not summing to 100.*

[36] http://www.scotland.gov.uk/Publications/2004/02/18876/32939 (accessed December 2008).

The age of new clients in each quarter is shown in Table 9.4. These figures suggest that about 85% of new clients in each quarter are 65 years old or over. The 2006 estimate for the number of people in Scotland who are aged 65 or more is 837,968[37]. This means that to date approximately 0.8% of people aged 65 or over have received TDP-funded telecare. Only about 10% of new clients were aged 16 – 64 and very few clients (about 0.2%) were under 16.

Table 9.4: Age of new clients*

	Quarter 1	Quarter2	Quarter 3	Quarter 4	Total
	No (%)	No (%)	No (%)	No (%)	No (%)
Under 16	6 (0.7)	1 (0.03)	4 (0.2)	3 (0.2)	14 (0.2)
16 - 64	109 (12.6)	226 (7.5)	148 (6.9)	270(14.2)	753 (9.5)
65+	646 (74.6)	2,597 (86.5)	1,898 (88.8)	1,574 (83.1)	6,715 (85.0)
Unknown	105 (12.1)	180 (6.0)	87 (4.1)	48 (2.5)	420 (5.3)
Total	**866**	**3,004**	**2,137**	**1,895**	**7,902**

* *Rounding is the cause of percentages not summing to 100.*

Table 9.5 shows the groups into which new clients fell. It can be seen that in Quarter 1 just under a third (29.7%) of new clients fell into the 'older person' group and slightly over a third (35.9%) were categorised as having a 'physical disability'. In Quarters 2, 3 and 4 between 60% and 70% of new clients were classified as older people and only 13% and 22% as having a physical disability. It should also be noted that, overall, 1,007 of the 1,443 clients classified as having a disability were aged over 65.

Table 9.5: Groups into which new clients fell*

	Quarter 1	Quarter2	Quarter 3	Quarter 4	Total
	No (%)	No (%)	No (%)	No (%)	No (%)
Older Person	257 (29.7)	2,086 (69.4)	1,492 (69.8)	1,151 (60.7)	4,986 (63.1)
Mental Health	21 (2.4)	70 (2.3)	43 (2.0)	63 (3.3)	197 (2.5)
Dementia	124 (14.3)	198 (6.6)	161 (7.5)	143 (7.5)	626 (7.9)
Physical Disability	311 (35.9)	402 (13.4)	314 (14.7)	416 (22.0)	1,443 (18.3)
Learning Disability	35 (4.0)	51 (1.7)	29 (1.4)	60 (3.2)	175 (2.2)
Substance Misuse	7 (0.8)	16 (0.5)	8 (0.4)	12 (0.6)	43 (0.5)
Under 16	6 (0.7)	1 (0.0)	3 (0.1)	2 (0.1)	12 (0.2)
Unknown	105 (12.1)	180 (6.0)	87 (4.1)	48 (2.5)	420 (5.3)
Total	**866 (100.0)**	**3,004 (100.0)**	**2,137 (100.0)**	**1,895 (100.0)**	**7,902 (100.0)**

* *Rounding is the cause of percentages not summing to 100.*

[37] http://www.gro-scotland.gov.uk/files1/stats/pp06tab-3.xls (accessed December 2008).

Taken overall, these figures suggest that the numbers of people receiving telecare services in Scotland (based on those receiving services funded by the TDP) increased steadily during 2007/08. They also show that new clients came from a variety of client groups. However, there are no clear patterns suggesting big changes in the numbers and proportions in any specific client groups, although Quarter 1 seems to be something of an anomaly (possibly due to the categorisations of a significant number of new users over the age of 65 under the 'physical disability' rather than 'older person' group).

9.2 REASONS FOR RECEIVING TELECARE

9.2.1 Main Reason for Receiving Telecare

The two most frequently cited main immediate reasons for providing telecare to a client were to 'Minimise client risk' and to 'Promote client independence'. The proportion of new clients assigned to these categories ranged from 68.5% in Quarter 1 to 86.5% in Quarter 2. Overall, about four-fifths (80.2%) of new clients were assigned to one or other of these categories. There is a certain amount of overlap between the two categories as minimising client risk will help to promote client independence. Further details are provided in Table 9.6.

Table 9.6: Main reasons for receiving telecare*

	Quarter 1	Quarter2	Quarter 3	Quarter 4	Total
	No (%)	No (%)	No (%)	No (%)	No (%)
Minimise client risk	350 (40.4)	2,512 (83.6)	1,592 (74.5)	999 (52.7)	5,453 (69.0)
Promote client independence	243 (28.1)	85 (2.8)	142 (6.6)	411 (21.7)	881 (11.1)
Prevent long-term admission to care home	32 (3.7)	35 (1.2)	104 (4.9)	118 (6.2)	289 (3.7)
Facilitate hospital discharge	66 (7.6)	97 (3.2)	92 (4.3)	54 (2.8)	309 (3.9)
Reduce risk of hospital admission/re-admission	41 (4.7	159 (5.3)	124 (5.8)	138 (7.3)	462 (5.8)
Monitor client to assess longer-term needs	10 (1.2)	38 (1.3)	33 (1.5)	128 (6.8)	209 (2.6)
Part of intermediate care package	83 (9.6)	24 (0.8)	19 (0.9)	16 (0.8)	142 (1.8)
Carer support	41 (4.7)	34 (1.1)	31 (1.5)	31 (1.6)	137 (1.7)
Unknown		20 (0.7)			20 (0.3)
TOTAL	**866**	**3,004**	**2,137**	**1,895**	**7,902**

* *Rounding is the cause of percentages not summing to 100.*

9.2.2 Secondary Reason for Receiving Telecare

As with the main immediate reason for receiving telecare, the two most frequently cited secondary immediate reasons for receiving telecare were to 'Minimise client risk' and to 'Promote client independence'. As shown in Table 9.7, the proportion of new clients assigned to these categories ranged from 53.1% in Quarter 2 to 64.4% in Quarter 4. Overall, almost three-fifths (57.0%) of new clients were assigned to these two categories.

Another frequently cited secondary reason for providing telecare was 'Reduce risk of hospital admission/re-admission', with about 9% of new clients each quarter assigned to this category.

Table 9.7: Secondary reasons for receiving telecare*

	Quarter 1	Quarter2	Quarter 3	Quarter 4	Total
	No (%)	No (%)	No (%)	No (%)	No (%)
Minimise client risk	261 (30.1)	269 (9.0)	263 (12.3)	706 (37.3)	1,499 (19.0)
Promote client independence	268 (30.9)	1,326 (44.1)	899 (42.1)	513 (27.1)	3,006 (38.0)
Prevent long-term admission to care home	24 (2.8)	361 (12.0)	166 (7.8)	170 (9.0)	721 (9.1)
Facilitate hospital discharge	12 (1.4)	113 (3.8_	54 (2.5)	11 (0.6)	190 (2.4)
Reduce risk of hospital admission/re-admission	84 (9.7)	239 (8.0)	195 (9.1)	173 (9.1)	691 (8.7)
Monitor client to assess longer-term needs	16 (1.8)	53 (1.8)	204 (9.5)	133 (7.0)	406 (5.1)
Part of intermediate care package	10 (1.2)	11 (0.4)	34 (1.6)	41 (2.2)	96 (1.2)
Carer support	72 (8.3)	414 (13.8)	193 (9.0)	62 (3.3)	741 (9.4)
Unknown	119 (13.7)	218 (7.3)	129 (6.0)	86 (4.5)	552 (7.0)
TOTAL	**866**	**3,004**	**2,137**	**1,895**	**7902**

* *Rounding is the cause of percentages not summing to 100.*

9.2.3 Long-Term Reasons for Receiving Telecare

The long-term reasons given for providing telecare are more varied than the main and secondary immediate reasons. As Table 9.8 shows, 'Minimise client risk' and 'Promote client independence' account for between 24.1% (in Quarter 2) and 42.8% (in Quarter 4) of the reasons given. Other reasons given over the year for relatively large numbers of clients are 'Prevent long-term admission to care home' (27.8%) and 'Reduce risk of hospital admission/re-admission' (12.3%).

Table 9.8: Long-term reasons for receiving telecare

	Quarter 1	Quarter2	Quarter 3	Quarter 4	Total
	No (%)	No (%)	No (%)	No (%)	No (%)
Minimise client risk	43 (5.0)	691 (23.0)	491 (23.0)	589 (31.1)	1,814 (23.0)
Promote client independence	284 (32.8)	34 (1.1)	211 (9.9)	222 (11.7)	751 (9.5)
Prevent long-term admission to care home	301 (34.8)	931 (31.0)	571 (26.7)	395 (20.8)	2,198 (27.8)
Facilitate hospital discharge	3 (0.3)	6 (0.2)	6 (0.3)	5 (0.3)	20 (0.3)
Reduce risk of hospital admission/re-admission	45 (5.2)	408 (13.6)	263 (12.3)	259 (13.7)	975 (12.3)
Monitor client to assess longer-term needs	6 (0.7)	6 (0.2)	17 (0.8)	131 (6.9)	160 (2.0)
Part of intermediate care package	10 (1.2)	126 (4.2)	141 (6.6)	148 (7.8)	425 (5.4)
Carer support	32 (3.7)	543 (18.1)	298 (13.9)	34 (1.8)	907 (11.5)
Unknown	142 (16.4)	259 (8.6)	139 (6.5)	112 (5.9)	652 (8.3)
TOTAL	**866**	**3,004**	**2,137**	**1,895**	**7,902**

* *Rounding is the cause of percentages not summing to 100.*

Section 10: Objective 7 – Achieve Efficiencies (Cash Releasing or Time Releasing) from the Investment in Telecare

Key Points

	Estimated monetary saving (£)	Per cent of monetary saving (%)
Increased speed of discharge from hospital	£1,731,944	15.5%
Reduced unplanned hospital admissions	£3,343,467	30.0%
Reduced care home admissions	£3,421,621	30.7%
Reduced nights of sleepover care purchased	£557,119	5.0%
Reduced home check visits	£1,796,039	16.1%
Locally identified efficiencies, namely reduced waking nights	£301,000	2.7%
TOTAL	**£11,151,190**	**100.0%**

10.1 OVERVIEW

Monetary savings were made from several sources, namely:

- Increased speed of discharge from hospital once clinical need is met[38];
- Reduced unplanned hospital admissions;
- Reduced care home admissions;
- Reduced nights of sleepover care purchased;
- Reduced home check visits; and
- Reduced waking night cover (a locally-identified efficiency).

Where local costs were not provided, YHEC has estimated savings using the cost information set out in Table 10.1.

[38] Proxied by data on shortened delayed discharges from hospital (of any duration).

Table 10.1: Cost information used by YHEC when local estimates were not provided

	Assumptions used*	Source
Hospital savings	Savings relating to Scotland-wide average figures for General Medicine were used, i.e. an average length of stay of 4.6 days and a cost per case of £1,600, giving an average cost per day of £348.	*Costs Book 2008*[39]
Care Home savings	Average weekly cost of £512 per care home place. Each new TDP client identified in a quarter as having avoided admission to a care home is assumed to have prevented 6.5 weeks in a care home (at a cost of £3,328). In subsequent quarters it is assumed that 90% of those carried over from the previous quarter have avoided 13 weeks in a care home (at a cost of £6,656).	*Costs Book 2008*[40]
Sleepover care	Average cost of £50 per sleepover night.	Derived from figures provided by Partnerships
Home check visits	Average cost of £8 per home check visit.	Derived from figures provided by Partnerships

* *Detailed explanations are provided in Sections 4 and 5 (hospital stays) and Section 6 (care homes)*

The estimated monetary savings for 2007/08 are shown by quarter in Table 10.2. They give a total saving for the year of £11,151,191. The total estimated savings for Quarter 1 sum to almost £1.13 million. Estimated savings for Quarter 2 increased to £1.88m and increased again to almost £4.32 million in Quarter 3. The estimated level of savings in Quarter 4 (£3.83 million) was similar to, (but lower than) that achieved in Quarter 3. Locally-identified efficiencies made a very small contribution to overall savings. This is because only two Partnerships identified any savings in this category (predominantly from reduced waking night cover) and because the cost of funding each night of waking cover is, when compared with hospital and care home stays, relatively low.

[39] Information Services Division Scotland. *Costs Book 2008*. Available from http://www.isdscotland.org/isd/4434.html (accessed December 2008).

[40] See footnote 39.

Table 10.2: Estimated total monetary savings by quarter

	Estimated monetary saving (%)			
	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Increased speed of discharge	£434,975 (38.7%)	£307,354 (16.4%)	£558,861 (12.9%)	£430,755 (11.2%)
Unplanned hospital admissions	£156,809 (13.9%)	£311,389 (16.6%)	£1,549,735 (35.9%)	£1,325,534 (34.6%)
Care home admissions	£202,827 (18.0%)	£505,454 (27.0%)	£1,287,828 (29.8%)	£1,425,512 (37.2%)
Nights of sleepover care purchased	£25,450 (2.3%)	£118,450 (6.3%)	£211,999 (4.9%)	£201,220 (5.2%)
Home check visits	£304,810 (27.1%)	£632,541 (33.7%)	£421,955 (9.8%)	£436,733 (11.4%)
Locally-identified efficiencies, namely waking nights	£200 (0.02%)	-	£287,360 (6.7%)	£13,440 (0.4%)
TOTAL	**£1,125,071 (10.1% of total savings)**	**£1,875,188 (16.8% of total savings)**	**£4,317,738 (38.7% of total savings)**	**£3,833,194 (34.4% of total savings)**

10.2 INCREASED SPEED OF DISCHARGE

Cumulative monetary savings made through facilitating hospital discharges once clinical need (as captured by reduced delayed discharges) was met are shown in Table 10.3. This table shows that during 2007/08 the total estimated monetary saving made across all Partnerships through facilitating discharges was £1,731,944. The reduction in delayed discharges contributed 15.5% of the total savings that are estimated to have resulted from use of TDP funds. By the end of 2007/08, savings from reducing the numbers of delayed discharges had been experienced by 21 projects across 20 of the Partnerships, compared with just eight projects and eight Partnerships during the first quarter of the year.

Table 10.3: Cumulative monetary savings during 2007/08 arising from increasing the speed of discharge once clinical need has been met

	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Number of Partnerships (projects)[41]	8 (8)	13 (13)	16 (17)	20 (21)
Savings (£)	**£434,975**	**£742,328**	**£1,301,189**	**£1,731,944**

It should be noted, however, that it may in practice be hard for the NHS to release all (or even a significant proportion) of these savings. Although some hospitals may be able to manage their beds, especially those for older people, more efficiently, this may be more likely to result in time being released, rather than monetary funds. This is because it is only possible to make substantial cash savings if sufficient economies of scale are realised to enable an entire ward (or even a whole small hospital) to be closed. Furthermore, the NHS is under considerable pressure to make a variety of efficiencies, which may be built into its funding allocations. Thus reducing the unnecessary use of hospital beds by reducing the

[41] See footnote 24.

numbers of delayed discharges may not result in significant additional funds becoming available from NHS hospitals to fund the local development of telecare services.

It is also important to note that many Local Authorities and NHS organisations have developed a wide range of services to facilitate discharge from hospital (e.g. intermediate care teams; community-based rehabilitation). These often work closely with telecare services. This means that all of the efficiencies identified above cannot be attributed to telecare alone.

10.3 UNPLANNED HOSPITAL ADMISSIONS

Cumulative monetary savings made through avoiding unplanned admissions are shown in Table 10.4. This table shows that during 2007/08 the total estimated monetary saving made across all Partnerships through avoiding unplanned hospital admissions was £3,343,467. Avoiding hospital admissions contributed 30.0% of the total savings that are estimated to have resulted from use of TDP funds. By the end of 2007/08, savings from reducing the numbers of unplanned hospital admissions had been experienced by 22 projects across 18 of the Partnerships, compared with seven projects and seven Partnerships during the first quarter of the year.

Table 10.4: Cumulative monetary savings during 2007/08 due to a reduction in unplanned hospital admissions

	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Number of Partnerships (projects)	7 (7)	9 (9)	16 (18)	18 (22)
Savings (£)	**£156,809**	**£468,198**	**£2,017,933**	**£3,343,467**

As with the savings from delayed discharges from hospital however, the monies saved through avoiding hospital admissions may not, in reality, be transferable to other services or organisations, and other services (e.g. rapid response teams) may also have been in place (and, indeed, needed to be in place) for these savings to be realised, which would represent additional costs in other parts of the system.

10.4 REDUCED USE OF CARE HOMES

Cumulative monetary savings made through reducing the use of care homes are shown in Table 10.5. This table shows that during 2007/08 the total estimated monetary saving made across all Partnerships through reduced use of care homes was £3,421,621. The reduced use of care homes contributed 30.7% of the total savings that are estimated to have resulted from use of TDP funds. By the end of 2007/08, savings from the reduced use of care homes had been experienced by 26 projects across 23 of the Partnerships, compared with twelve projects and ten Partnerships during the first quarter of the year.

Table 10.5: Cumulative monetary savings during 2007/08 arising from a reduced use of care homes

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Number of Partnerships (projects)	10 (12)	14 (16)	19 (22)	23 (26)
Savings (£)	**£202,827**	**£708,281**	**£1,996,109**	**£3,421,621**

The amount of funds that could be released as a result of these savings for Local Authorities to spend elsewhere will, to a certain extent, depend upon the types of contracts they hold with local care homes. However, it is likely that most of these monies will remain available for the Local Authority to use for other purposes and local priorities. It should also be noted that many Local Authorities have developed or contributed to the development of a range of new projects (e.g. Extra Care Housing) to reduce the numbers of people needing to move into care homes.

10.5 NIGHTS OF SLEEPOVER CARE SAVED

Cumulative monetary savings made through reducing the number of nights of sleepover care purchased are shown in Table 10.6. This table shows that during 2007/08 the total estimated monetary saving made across all Partnerships through reducing the nights of sleepover care provided was £557,119. The reduced use of sleepover care contributed 5.0% of the total savings that are estimated to have resulted from use of TDP funds. By the end of 2007/08, savings from reducing the numbers of nights of sleepover care purchased had been experienced by 12 projects across ten of the Partnerships, compared with four projects and four Partnerships during the first quarter of the year.

Table 10.6: Cumulative monetary savings during 2007/08 arising from nights of sleepover care saved

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Number of Partnerships (projects)	4 (4)	5 (5)	8 (9)	10 (12)
Savings (£)	**£25,450**	**£143,900**	**£355,899**	**£557,119**

10.6 HOME CHECK VISITS SAVED

Cumulative monetary savings made through reducing the number of home check visits purchased are shown in Table 10.7. This table shows that during 2007/08 the total estimated monetary saving made across all Partnerships through reducing numbers of home check visits was £1,796,039. The reduced use of home check visits contributed 16.1% of the total savings that are estimated to have resulted from use of TDP funds. By the end of 2007/08, savings from reducing the numbers of home check visits had been experienced by ten projects across ten of the Partnerships, compared with four projects and four Partnerships during the first quarter of the year.

Table 10.7: Cumulative monetary savings during 2007/08 arising from home check visits saved

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Number of Partnerships (projects)	4 (4)	5 (5)	7 (7)	10 (10)
Savings (£)	**£304,810**	**£937,351**	**£1,359,306**	**£1,796,039**

10.7 LOCAL EFFICIENCIES

Cumulative monetary savings made through specific locally-identified efficiencies, namely reducing the number of waking nights purchased, are shown in Table 10.8. This table shows that during 2007/08 the total estimated monetary saving made across all Partnerships through these savings was £301,000. This saving made up 2.7% of the total savings that are estimated to have resulted from use of TDP funds. Only two Partnerships experienced such savings.

Table 10.8: Cumulative monetary savings arising from locally-identified efficiencies

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Number of Partnerships (projects)	1 (1)	0 (0)	1 (1)	2 (2)
Savings (£)	**£200**	**-**	**£287,560**	**£301,000**

Section 11: Objective 8 – Support Effective Procurement to Ensure that Telecare Services Grow as Quickly as Possible

Key Points

- JIT recommended that Partnerships should use the established National Framework Agreement with the NHS Purchasing and Supply Agency (PASA) to promote the effective procurement of telecare equipment by the Partnerships;
- Thirteen Partnerships used PASA for all purchases, four used it for some purchases, and 11 did not use it at all (though some of these used it indirectly);
- The main reason for not using the National Framework was the ability to purchase equipment more cheaply through alternative mechanisms;
- Those Partnerships that had used PASA had experienced relatively few problems with the system.

The NHS Purchasing and Supply Agency (PASA) National Framework Agreement for Telecare: Part A includes the supply of both telecare/community alarm equipment (e.g. sensors worn by users to detect falls; wandering) and telehealth/telemedicine equipment (e.g. blood pressure monitoring equipment; medication reminder systems). The Framework also includes relevant equipment installation and maintenance, and monitoring and response services. The National Framework Agreement allows access to 15 suppliers offering a range of products and services that conform to relevant regulations and standards. Where applicable, products have been independently market tested and evaluated by the PASA Centre for Evidence-based Purchasing.

Using the Framework eliminates the need for organisations to undertake their own procurement exercise individually, which saves time and resources. At the same time it ensures that suppliers within the market do not need to increase product prices to cover overhead costs for processing multiple tenders across the country. PASA estimate that users can achieve savings, based on existing prices being levied to the public sector for telecare, in the region of 13.9%[42].

[42] NHS Purchase and Supply Agency. *National framework agreement for telecare – part A (including equipment, installation, maintenance, monitoring and response services)*. June 2006. Available from http://www.lcpe.gov.uk/Library/pdf/Telecare%20Information%20Pack%20-%20Final%20Version.pdf (accessed January 2009).

On the basis of the findings reported below, this estimated saving appears optimistic. Six partnerships said that they could secure more competitive prices by going direct to the supplier (one of whom is participating within the National Framework Agreement). One Partnership had discovered:

> *"… in the case of one company who is participating within the National Framework Agreement, its equipment is made by a second company and it is cheaper to go direct to the manufacturer (not on the Framework list). However, installation is carried out by a third company and it is cheaper still to buy direct from the installer."*

Partnerships involved in the Northern Housing Consortium (NHC) reported that procuring equipment through this route, which essentially falls within the overall PASA Framework, was more economical than using PASA directly.

During 2007/08 13 Partnerships used the National Framework for all their equipment purchases and 11 Partnerships did not to use the National Framework at all. The remaining Partnerships used the Framework for some of their purchases. Table 11.1 provides further detail for 2007/08 by quarter.

Table 11.1: Use of PASA National Framework during 2007/08

	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Yes, for all	11	11	13	13
Yes, but only for some	1	4	4	4
Did not use PASA	12	11	13	15
Number making purchases	**24**	**26**	**30**	**32**

The reasons for not using the National Framework, as stated by the 11 Partnerships who never used it, are set out in Table 11.2 (one Partnership gave two reasons).

Table 11.2: Reasons given by Partnerships for not using the national framework

Reason	**Number of Partnerships**
Current negotiated rates are as good as or cheaper than National Framework rates	3
It is cheaper to buy direct from an alternative supplier/manufacturer	2
No equipment has been procured	2
Current contract/system with supplier precludes use of Framework	4
Use local company due to type of equipment required	1
TOTAL	**12**

On reporting on the use of PASA, over 80% of responses from those who used the service indicated that it had run either "very smoothly" or "quite smoothly" (see Table 11.3).

Table 11.3: Views on how the process of using the PASA National Framework ran

How the process ran	Percentage (%)
Very smoothly	39.3
Quite smoothly	41.0
Some parts smoothly, others not	11.5
Few problems	6.6
Many problems	1.6
Total	**100.0**

Some Partnerships, especially those working with clients with non-routine requirements, enjoyed working directly with a supplier to devise the most appropriate equipment for the client.

Two Partnerships using the Framework had experienced problems with delays in deliveries of equipment. One commented that their supplier was having difficulty keeping up with national demand. The second said they were having difficulty with items that they needed being out of stock and only the more expensive items being available.

There were also some issues with the PASA web interface. One Partnership commented on having difficulties navigating the web page and another expressed frustration at the fact that the web site did not provide a clear indication of which pieces of equipment were compatible with each other.

Other issues raised by the Partnerships included:

- The fact that not all equipment or emerging providers were included in the catalogue; and
- Collecting old equipment proved to take time and one Partnership made the point that it had received no remuneration for returning some equipment that could be re-circulated.

Section 12: Other Lessons from the TDP – Quarterly Returns

Key Findings

- The main beneficiaries of telecare funds have been older people, including those with dementia;
- In a number of Partnerships telecare is now widely accepted, but other Partnerships are still meeting with resistance to the concept;
- Partnerships have faced a number of difficulties, including:
  - Organisational challenges – including lack of personnel and lack of support from senior management;
  - Communicating the benefits of telecare;
  - Equipment-related difficulties;
- Project Managers suggested that anyone considering developing a telecare programme should:
  - Pay specific attention to raising awareness;
  - Start small – do not be too ambitious;
  - Introduce projects that build on (rather than replace) existing initiatives;
  - Ensure that they have an up-to-date call centre and a good response service;
  - Take advantage of networking opportunities to learn from others.

12.1 OVERVIEW

The material in this section is drawn mainly from the final Quarterly Return for 2007/08, which included some additional questions about the experiences of Partnership Telecare Project Managers during 2006/07 and 2007/08. These questions explored:

- Which local services and/or client groups they felt had benefited most from TDP expenditure;
- Which three telecare-related achievements had given them the most professional satisfaction;
- What had been the three greatest frustrations relating to developing telecare services locally;
- The three pieces of advice they would give to someone about to develop telecare services in their area.

12.2 CLIENT GROUPS THAT HAVE BENEFITED MOST FROM THE EXPENDITURE OF TDP FUNDS

The main beneficiaries of the TDP to date have been vulnerable older people, including those with dementia. Table 9.5 showed that almost two-thirds (63.1%) of the recipients of TDP-funded equipment have been classified as older people and that about one-in-twelve (7.9%) recipients have had dementia (most of whom will have been over 65 years of age). For many, telecare has been part of a package of support that allows them to live independently with a higher quality of life. This support has also benefited informal carers and family members through providing peace of mind. Rather than all recipients being new users of telecare, some older people have benefited through an upgrade in equipment, allowing a faster and more efficient service to be provided. Other groups where telecare has been successful include:

- Victims of violence who have improved access to the Police;
- Those previously exploited by rogue traders who have been helped by a Doorstopper project;
- Younger service users with physical or learning disabilities who have been offered the chance to live independently.

12.3 ACCEPTANCE OF TELECARE

12.3.1 Corporate Level

A number of Partnerships had noticed that during 2007/08 there had been a change in mindset and that telecare was now being more widely acknowledged at operational and strategic levels. One Partnership commented:

> *"The TDP has significantly raised a wide range of stakeholders' awareness including politicians, policy makers, commissioners, social care staff, carers, service users etc, culminating in the current development of a telecare policy with a cohesive access and funding system."*

Another reported that:

> *"Care groups within the social care sector are now considering telecare strategically when planning to reform current or commission new services. This demonstrates that its utility and potential are now being recognised beyond its traditional Older People/community alarms base."*

Other Partnerships had not had such positive experiences. One Partnership had encountered difficulties promoting telecare due to the fact that only capital funding was available through the TDP. Another Partnership commented that it had experienced a lack of interest, understanding and commitment to long-term investment in telecare at a corporate level, within both the Local Authority and the health-related sectors.

12.3.2 Other Stakeholders

Many Partnerships welcomed the fact that TDP funds had allowed the profile of telecare to be raised amongst staff, service users and carers. In one case a Partnership had made slow progress promoting telecare locally. This was explained when it was discovered that people assumed that telecare meant teleconferencing or telehealth solutions (e.g. for discussions between consultants and GPs) and therefore did not attend awareness-raising sessions because they did not think that they were relevant to them.

Other Partnerships also experienced communication difficulties; one Partnership expressed frustration at:

> *"Finding NHS staff who deny having heard of telecare despite varied ways having been used to ensure communication with all teams."*

Several Partnerships had had difficulty changing peoples' attitudes towards telecare, in particular getting potential stakeholders to see telecare as part of the solution to supporting people to live independently. One Partnership commented that:

> *"Professionals tend to focus on the process involved, i.e. completing referral information etc, rather than the benefits* [of telecare] *to clients."*

One Partnership had had difficulties trying to convey the message that telecare should be an early preventative intervention rather than a response to a crisis and felt that its inability to get this message across explained why referral rates had been slow. In another Partnership there was resistance to telecare on ethical grounds.

12.4 FRUSTRATIONS EXPERIENCED BY PARTNERSHIPS

12.4.1 Organisational Challenges

One of the key frustrations faced by Partnerships was a lack of personnel to drive or manage telecare projects. Many managers were trying to manage their local telecare development on top of already full workloads and agendas. In these cases it was felt that lack of dedicated staff time had led to slow progress. In a few other Partnerships where the need for dedicated staff had been recognised, there were issues around recruitment. These problems included getting the necessary authorisation to advertise posts and a lengthy job evaluation process.

Other difficulties encountered by Partnerships included:

- Lack of high-level management buy-in;
- Working across different large departments where there were communication issues;
- Identifying the appropriate health contacts;

- Confusion around the relationship between this programme and existing telehealth programmes;
- The local introduction of a charge for community alarms.

12.4.2 Issues Relating to Telecare Equipment

A number of Partnerships had experienced practical challenges relating to telecare equipment. These included:

- Frustration due to low batteries causing false alarms and reducing the confidence of users in the equipment;
- Compatibility issues between different pieces of equipment (e.g. not realising that current monitoring equipment would not be compatible with some new equipment);
- Staying up-to-date with equipment changes;
- Local difficulty coordinating responses from two different response services;
- Difficulty progressing a telehealth pilot due to IT issues.

12.5 ADVICE FOR SOMEONE ABOUT TO EMBARK UPON DEVELOPING LOCAL TELECARE SERVICES

12.5.1 General Points

General points suggested by Partnerships included:

- *"Have a clear strategic vision and procedures in place";*
- *"Secure a dedicated project management resource to drive the project, be a point of reference at the outset, and maintain project momentum";*
- *"Choose targets wisely, research fully and have patience";*
- *"Start small and focus on one area";*
- *"Build on the services you have and progress in a gradual and focused way";*
- *"New projects should be seen as supporting existing services, not as replacement or cost-cutting, so staff should be involved from the beginning";*
- *"Staff engagement is critical to the success of a programme";*
- *"Ensure policies and procedures are implemented from the outset and use these to support awareness/training sessions";*
- *"Engage with service users early on in the development of the service".*

12.5.2 Support from Senior Management

A number of Partnerships stressed the importance of buy-in from Local Authority and NHS senior management (one Partnership suggested that such support should be at Assistant Director level or above). It was felt that such buy-in was necessary to support short-term developments and also for securing the longer-term investment that is needed to make telecare services work.

Additionally, it was felt that high level multi-disciplinary support is needed to help ensure that telecare services link effectively with other care services from health (including telehealth and telemedicine), social work and voluntary organisations.

12.5.3 Involvement of Other Stakeholders

Several Partnerships felt that it was very important that all professional care-givers were, as one Partnership put it, "*on your side"* and that staff awareness should be raised as early as possible in the development process. It was suggested that awareness training should be directed at the highest level down through the whole organisation, as it had been noticed that levels of knowledge can vary greatly between individuals.

Partnerships had used different methods to raise awareness. One Partnership explained that:

> *"Achieving a 'quick win' in actual provision for individual users provided concrete evidence of success and was a great help in raising awareness and convincing professionals and carers of the benefits of telecare."*

Another had found that:

> *"Using actual telecare equipment in demonstrations had proved very successful in awareness raising sessions."*

12.5.4 Knowledge and Training

It was felt that staff training was critical to the success of a programme. One Partnership suggested that all professional caregivers should be familiar with and be able to make referrals across the whole range of telecare technology. It was also felt to be important to develop mentoring arrangements to ensure that staff have somewhere to go for advice. In addition, it is necessary to develop a method to update professionals about available telecare solutions.

It was suggested that, as technology is changing so rapidly, it is not possible to maximise the benefits from new developments without staff dedicated to telecare. A recurring theme was the need for good technical advice about the availability and capacity of technology and possible solutions. One Partnership suggested that it would be useful to:

> *"…build a strong information bank and good operational knowledge of the equipment, how it works and its pros and cons".*

On a similar theme, it was suggested that a staff member should be appointed to support service users in learning how to use a technology so its capacity and limits are known and the service user does not give up on using the equipment because it does not appear to be user friendly.

12.5.5 Response Service

The importance of the response service was an issue raised by a number of Partnerships. It was felt that a good quality alarm receiving centre with up-to-date equipment that can identify the type of technology that is calling in (including any new technology) is essential. As one Partnership said:

> *"Ensure that you are able to respond – without the response the technology will only serve to identify risks that you cannot manage".*

It was stressed that procedures should be set up at the outset to identify who would respond to alerts and that measures should be put in place to ensure that this response was available around the clock for the increased activity that would result from the installation of telecare. Several Partnerships mentioned having experienced difficulties assessing staffing levels/models needed to provide the response element of telecare. One Partnership said that they had been hampered by:

> "*The lack of an effective planned response service, which appears to be unachievable in this dispersed rural authority. It now seems to be an issue which is at least on the agenda and over time we may find creative solutions to the problem."*

In another case, the limitations of the response service had led to a lack of confidence in telecare. This Partnership said that:

> *"The limited capacity of the Council's alarm service meant that it was not able to provide a response to people with high level needs (e.g. dementia sufferers who are prone to wandering) and this restriction in the early stages, to some extent, undermined telecare's credibility in the community and thus negatively influenced telecare's perceived value."*

12.5.6 Networking

A number of Partnerships recommended, wherever possible, learning from the experiences of other Partnerships. National Network meetings were highly valued, as they gave an opportunity to find out about examples of good practice and to speak to others who could advise/assist with decision making.

12.6 OUTCOME AND EFFICIENCY SAVINGS

A number of Partnerships pointed out that although TDP funds may be used to purchase telecare equipment, the cost of the equipment is only a small percentage of the package, with assessments, installations and reviews and response services all provided from existing budgets. It is therefore difficult to attribute outcomes specifically to the TDP.

One Partnership went further and said:

> *"It must be taken into account that the monetary savings shown are calculated on full costs of care home admissions, average hospital stays etc but this full amount cannot be accredited to telecare alone. There are other supports being implemented into service users alongside telecare, i.e. home care, day care etc in order to maintain their independence in the community. There are also fixed costs for care homes which cannot be realigned into other budgets unless the care home was being closed down/scaled down, i.e. staffing, beds, electricity etc. Therefore the full savings shown in the return would not be the amount of saving applicable to reinvest in telecare."*

12.7 ADDITIONAL POINTS

For a number of Partnerships, TDP funds had acted to "pump prime" the development of telecare. In some cases it had assisted planned services to become operational and in other cases it had helped to initiate plans. TDP funds had allowed some Partnerships, through setting up the inter-agency approach necessary to deliver telecare, to experience the additional benefit of improved and/or extended local Partnership working.

Several Partnerships felt that establishing and expanding telecare services had taken longer than anticipated. However, there was a view that having used their initial TDP funds to strengthen their local telecare infrastructure, progress should now be made at a steady pace. On a cautionary note, one Partnership commented:

> *"The receipt of funding for the development of telecare has been great but, depending on how you have used the funds, requires long-term investment or a robust exit strategy."*

Some Partnerships raised frustrations they had experienced in relation to the JIT funding process, including a perceived lack of clarity with regard to how TDP funds could be spent, the time taken to secure funding, and the nature of the process involved in gaining access to TDP funds. Several Partnerships also complained about the time it had taken them to complete the Quarterly Returns.

Some other difficulties mentioned included:

- The ethics of using telecare technology;
- Difficulties with the single shared assessment process;
- Keeping up with new developments (i.e. what is useful and what is affordable);
- Providing personalised telecare systems that meet client needs[43].

[43] This comment was made by a Partnership that said that the scale of its project had meant that it provided standardised packages which did not always meet specific client needs.

Some difficulties anticipated in the future include:

- The challenges presented by adapting/replacing current telecare systems for digitalisation;
- Replacing equipment purchased using TDP funds (average life of equipment is five years);
- Managing additional demand on monitoring centres and local staff arising from increased use of telecare.

Section 13: Other Lessons from the TDP – Case Study Sites

Key Findings

- The five selected case study sites enjoyed a variety of experiences during 2006-08;
- They were selected to be representative from geographical and urban/rural perspectives and included a wide range of projects and client groups;
- A number of lessons for others interested in developing or extending telecare services can be learned from the experiences of the case study sites, including:
  - The need for sufficient dedicated managerial input;
  - The importance of a local 'Champion', preferably working at Senior Officer level;
  - Not to be too ambitious when setting-up projects using telecare, and to set realistic timescales for their development;
  - A significant amount of time is usually required to develop a positive local culture towards telecare and to "*win people's hearts and minds*";
  - The need to recognise the time required to provide appropriate training to a wide range of staff from many health, social care and housing-related settings (which can be greatly assisted by a demonstration house, or similar);
  - It is likely to take up to a year of preparatory work before telecare clients can be recruited;
  - Even if basic packages of telecare are to be used, it will be necessary to have some flexibility to ensure that people's specific needs are met;
  - Telecare equipment can have a dramatic effect on the lives of some people, especially older people (including those with dementia) and people with long-term conditions and learning disabilities;
  - Informal carers can also benefit greatly from telecare equipment;
  - A 24/7 professional responder service is very beneficial and popular (providing it is practical to deliver such a service – it may be necessary to consider some imaginative forms of delivery);
  - The Partnerships see telecare as part of a package of services supporting people to remain living in their own homes and are not monitoring the specific financial effects due, for example, to increased demand for other services;
  - The case study sites are looking forward to continuing to develop their services during 2008-10, and to incorporating telecare equipment into various assessment and mainstream services.

13.1 OVERVIEW

Five Partnerships were chosen as case study sites for the evaluation. They were selected during the summer of 2007 to capture the range of projects being funded by the TDP and included Partnerships with a variety of characteristics (see Appendix K for an explanation of the selection process). Specific information was gathered from these sites through a

number of telephone interviews with key stakeholders in each Partnership in the autumn of 2007 (see Appendix K for more details) and visits to four of the five Case Study sites[44] were undertaken during the summer of 2008. Additional information from these Partnerships, such as local reports and documents, has been used to inform this section, as well as material from the Quarterly Returns.

This section covers the main themes emerging from the case study sites and focuses in particular on the lessons that can be learned from their experiences. Although every Partnership in the evaluation had different characteristics and experiences, the information should nevertheless be of interest to others considering developing both generic and specific telecare services. Many of the key messages from the Case Study Partnerships echo and reinforce those derived from the more general Partnership feedback from the Quarterly Returns discussed above in Section 12.

It should be noted that Appendix L also includes some 'case studies' from across all of the Partnerships. These are examples provided to YHEC in response to requests in the Quarterly Returns for copies of other relevant information prepared for local use. They provide additional examples of and information about the impact of telecare on some of its users.

13.2 REASONS UNDERLYING THE SELECTION

Two of the criteria used to select the sites were their geographical location and their urban/rural classification. Scotland was sub-divided into three broad geographical areas – Northern, Central, and Southern. The researchers used the (then) Scottish Executive's Urban Rural 8-Fold Classification 2005-06 to allocate each Local Authority into one of four groups – Very Urban, Mainly Urban, Mainly Remote, and Very Remote. Each Local Authority was then classified by YHEC according to its geographical location and its urban/rural classification (see Appendix K for further details).

Several other criteria were also identified, including:

- A range of client groups;
- Different-sized populations;
- Different numbers of local projects;
- Focus on different outcomes;
- The Partnership's state of readiness.

Some of the Partnerships on the researchers' initial list of potential case study sites were unable or unwilling to be involved, but the five case study Partnerships that were eventually selected were drawn from:

[44] As one of the sites had, for a variety of reasons, made relatively little progress, it was decided that a site visit was not necessary.

- Northern Scotland – Mainly Rural (1);
- Central Scotland – Very Urban (1);
- Central Scotland – Mainly Urban (2);
- Southern Scotland – Mainly Rural (1).

Their intended developments included:

- A focus on providing large numbers of older people with core and enhanced packages of telecare equipment;
- Use of different types of telecare equipment;
- Working with clients with learning disabilities, brain injuries or neurological problems to promote independent living;
- Keeping people with long-term conditions out of hospital and/or long-term care;
- Improving needs assessment procedures (e.g. integrating telecare within these);
- Upgrading telecare equipment in sheltered housing;
- Using lifestyle monitoring equipment;
- Using telehealth.

13.3 FACTORS INFLUENCING INITIAL PROGRESS

Most of the Partnerships (including the case study sites) only began to recruit telecare clients under TDP funding during 2007/08. The case study sites generally needed the time in 2006/07 to prepare the ground for developing their local telecare services. Most of them made good progress in terms of developing their telecare services during 2007/08, although progress was slow at one site for a variety of reasons.

The case study sites had expected that local progress would be faster than it was. The delays were due to many factors. These varied across the sites, but included:

- Partnerships were not invited to submit their Stage 1 forms until the autumn of 2006/07 (i.e. over half way through the first year of the two-year funding period);
- The time taken to complete the Stage 1 forms to an acceptable standard (and therefore to receive their first tranche of allocated funds);
- The case study sites did not receive their first tranches of TDP funds until early 2007 (February – April);
- The need to recruit a suitable Project Manager for the service;
- The need (in some places) to recruit other staff (e.g. an assessor) to work on the project;
- The impact of local factors such as recruitment freezes (even for projects with earmarked funding);
- High levels of sickness and staff turnover, especially amongst senior managers, resulting in no-one being able to take the decisions needed to drive the telecare projects forward (e.g. about the eligibility criteria to be applied locally for telecare clients);

- The time required to deliver necessary training to local staff (e.g. community-based and hospital-based nurses and therapists; social workers; home care/support workers) who would be working with clients with the potential to benefit from telecare;
- For some staff groups, a significant shift in culture was required, especially for those from nursing backgrounds, who often found it difficult to accept that some risk would be associated with maintaining telecare clients in the community rather than in hospital or long-term residential/nursing care;
- The importance of promoting and publicising the service to potential service users and their families and to others working with them, such as voluntary organisations and providers of supported housing;
- The need to build-up good working relationships between health and social care (though these were already well-established in one Partnership, which had had an integrated service for several years);
- A requirement for collaborative working with other departments or agencies (e.g. housing) for some projects, where these departments and agencies were often experiencing their own internal and external pressures and working to different priorities;
- Managers needing to explore local options for procuring their telecare equipment (as shown in Section 11, PASA was not always the most suitable route).

The broad consensus from the case study sites was that they had needed about a year to reach the stage of being able to recruit telecare service users to an active service.

In several instances it was clear that staff associated with the local development of telecare services felt frustrated that it was taking much longer to implement than they had expected. However, this frustration was also felt within Partnerships where progress was being made relatively quickly. Given that TDP funding was initially allocated for 2006-08, Partnerships felt under some pressure to start to recruit clients and to have an impact as quickly as possible. In hindsight, initial expectations now look overly ambitious, even on the part of those with well-established existing telecare schemes. This factor may help to explain why some of the targets initially identified by the Partnerships for 2006/07 and 2007/08 were not subsequently achieved. It should also be noted that experience from pilot projects of many types across Local Authorities and the NHS in the UK clearly shows that new initiatives generally take about nine to twelve months to become operational and up to 18 – 24 months to reach 'steady state'[45].

[45] For example, this was a key finding of a recent evaluation for North Yorkshire County Council of their nine Partnership for Older People Project (POPP) pilot initiatives funded by the Department of Health as part of the national POPP programme. A recent research study for the Scottish Government on *The Impact of Local Antisocial Behaviour Strategies at Neighbourhood Level* (published in 2007) included a variety of scenarios for the steady state costs for a Early Intervention Families Project in Edinburgh because of the time required for the project to achieve steady state and to deliver its full potential (see: http://www.scotland.gov.uk/Resource/Doc/200520/0053611.pdf accessed December 2008). This mirrors the experiences of six Intensive Family Support Projects in England evaluated for Communities and Local Government (*Anti-social Behaviour Intensive Family Support Projects*, Department for Communities and Local Government, October 2006: http://www.communities.gov.uk/documents/housing/pdf/153701.pdf accessed December 2008).

The managers and other interviewed stakeholders from the Partnerships identified a number of factors that facilitated the development of their local projects[46]. Appendix K includes a summary of the initial findings after the telephone interviews with stakeholder representatives that were undertaken in the autumn of 2007. The factors identified during the evaluation period as a whole included:

- The choice and working arrangements of the Project Manager:
  - Some of the Partnerships had recruited (e.g. through secondment) a dedicated Project Manager to work exclusively on developing local telecare services;
  - This person did not necessarily work full-time on telecare, but it was vital that those with other responsibilities had protected time for their telecare work, and appropriate support;
  - The Project Manager for one Partnership (based in a relatively small Local Authority) had the development of telecare services added to her existing highly-pressured workload (which included services for several client groups), and therefore struggled to free-up much time to devote to telecare[47];
  - Some of the Project Managers already had an interest in and knowledge of telecare services (e.g. through work on a Masters degree dissertation);
  - Several of the Project Managers were already well-known and highly respected locally (e.g. by those working at the local Call Centre and for the local Responder Service, where applicable);
  - Some Partnerships without a dedicated Project Manager wished that they had appointed such a person;
  - One Partnership felt that having a Project Manager who was also involved in delivering mainstream services meant that telecare services were seen as an integral part of such services, rather than as a separate, potentially time-limited, 'add-on' service.

- Access to a location where relevant equipment could be seen and demonstrated:
  - Most of the case study Partnerships now have access to a demonstration house (e.g. a smart house[48]) or a designated area where telecare equipment (including that associated with assisted living) can be seen and demonstrated;
  - Such facilities can also be used for staff training (providing there is sufficient space), which needs to be provided on an ongoing basis, especially where

[46] Interviewees included strategic and senior officers and managers (e.g. responsible for areas such as community services, operations, resources, strategy and modernisation), finance officers, service managers, business managers, occupational therapists, social workers, hospital discharge planners, delayed discharge managers, and staff working for services such as home care, intermediate care, old age psychiatry, learning disabilities, physical disabilities services, and sheltered housing. Other interviewees included telecare assessors, managers of community alarm services, equipment installers/technicians, and staff working for call centres and responder services.

[47] A variety of other local factors did not help (e.g. delays in the availability and conversion of properties), but the Project Manager did not have sufficient time to try to address some of these issues.

[48] A smart (or SMART) house is one that has been fitted out with modern technology to demonstrate how a range of equipment can help older people and those with disabilities or limiting long-term conditions to live in their own homes.

staff turnover is high and/or considerable use is made locally of bank/agency staff and private care providers;
    - Staff working with potential beneficiaries of telecare appreciate being able to see the types of equipment that are available (rather than just seeing pictures in a catalogue). A facility that enables this can be used to promote and demonstrate telecare equipment to staff from many professional backgrounds, including housing managers and wardens of sheltered housing schemes[49];
    - Potential users and their carers also benefit from being able to see what equipment is available;
    - Partnerships with such a facility value it highly and find it very useful;
    - A local member of staff who is familiar with the available equipment can help and support a Project Manager by taking responsibility for some of the visits.

- Good publicity:
    - Publicity can take a variety of forms, including simple leaflets and web sites;
    - It is important that the information included is clear and kept up-to-date;
    - One Partnership has produced a (free) catalogue entitled 'SMART IDEAS' which provides a wide range of information about aids and equipment designed (according to its title) to keep people "Safe and Independent at Home";
    - This catalogue has been very well received (though it has been important to explain that not all of the equipment shown in it is available via the Partnership's TDP-funded schemes).

- Support from one or more local 'Telecare Champions':
    - Given ever-continuing developments within health and social care, it is vital that telecare enjoys a high profile within each Partnership on an ongoing basis;
    - Unless Senior Officers keep receiving telecare-related messages (e.g. by hearing about its achievements in strategic and operational meetings), there is a danger that it loses its local status and impetus;
    - Ongoing awareness of its actual and potential benefits can be maintained if there are one or two Senior Managers who can promote (or 'champion') it at a high level within the relevant organisations.

- The importance of changing local culture:
    - Several Project Managers stressed the need to change the culture around telecare to get staff to think automatically that telecare may be able to help a person;
    - For some staff (e.g. many nurses working in hospital settings) this requires accepting that enabling people to remain living at home with the support of telecare equipment (and, possibly, other services) carries a higher degree of risk than would apply if they remained in hospital or moved into long-term care;

[49] Appendix L includes comments made by people visiting the smart houses run by one of the Partnerships.

- In some places local staff (especially social workers) seemed to have a "*cultural barrier*" around telecare, and raised "*ethical issues*" about it increasing isolation and *"replacing human contact with equipment"*;
- Service managers were aware that some users may feel socially isolated if their telecare equipment reduces their regular contact with professional staff (e.g. it reduces their home check visits), but stressed that this should be addressed by putting them in contact with suitable social activities *("Home Care staff should not be used to provide comfort visits"*);
- In another area, some staff had raised concerns that telecare was a way of "*spying on people*" and that it therefore infringed their rights;
- Some staff also had concerns about the ability of some users (e.g. those with dementia) to give informed consent to the installation of the equipment (this concern is likely to become stronger if tagging systems are used for clients who are prone to wandering);
- One Project Manager in a rural area found that primary care staff were particularly hard to convince; many of them could not see the need for or the benefits of telecare equipment;
- The amount of time that needs to be spent "*winning hearts and minds*" and promoting telecare equipment as part of the local culture of care and support should not be underestimated.

- Number and types of telecare schemes being developed:
  - Not surprisingly, those Partnerships where telecare services were already established tended to "*hit the ground running*";
  - This was partly because they had already established good joint working between health and social care (in one Partnership these were totally integrated, apart from the budgets, which were aligned);
  - Those Partnerships with a clear focus on a small number of relatively straightforward projects tended to make faster progress than those with more diverse plans;
  - Partnerships hoping to introduce telecare into more than one service area (or for more than one client group) tended to make early progress in one area, but not necessarily in all of them;
  - Project Managers stressed the importance of not being too ambitious and of setting realistic targets, as they felt that failure to develop telecare services successfully would be very damaging locally.

13.4 TYPES OF SCHEMES AND ASSOCIATED EQUIPMENT

The five case study Partnerships have developed a wide variety of schemes for a range of client groups. These schemes use many types of telecare equipment and provided helpful informal feedback on the strengths and weaknesses of the various pieces of equipment.

Not all of the projects outlined in case study Partnerships' Stage 1 submissions to JIT were able to be implemented during 2007/08 for a variety of local reasons. However, the projects that have been implemented include:

- A scheme to put telecare equipment into five step-up/step-down flats (mostly used by clients leaving hospital), which has reduced the need for checks by a Warden. This Partnership also has four mobile assessment kits that can quickly be installed for a period of about four weeks to monitor the user to determine their personal telecare equipment needs. In addition, it has some ruggedised alarms which use a SIM card and can be fitted on a short-term basis in properties without a telephone landline;
- A city-wide scheme to provide older people with either a core package (e.g. neck or wrist pendants; PIR movement detectors; smoke alarms; bed sensors; and extreme temperature sensors) or an enhanced package (e.g. as above but also including fall, flood and gas detectors) of telecare equipment;
- Increasing the numbers of local people with bespoke telecare equipment (rather than providing standardised core packages, which revealed a number of shortcomings when piloted locally). This includes using lifestyle monitoring equipment which identifies users' patterns of behaviour and therefore their specific equipment needs (which can be quite different from those initially anticipated);
- Developing telecare services for people with long-term conditions at high risk of hospital re-admission. This Partnership also hopes to provide additional telecare packages for tenants within sheltered housing developments with the aim of delaying admission to care homes, although this project experienced delays due to a local recruitment freeze, making it impossible to recruit during this evaluation period to an assessor post that is required to progress this development;
- Several case study Partnerships also stressed that they are keen to incorporate assessments for telecare into other assessment processes, such as discharge planning and the (electronic) Single Shared Assessment, so that it is seen as part of a package of integrated services, rather than as a stand-alone add-on.

Another case study Partnership intended to equip five houses originally used for respite to provide temporary accommodation for clients with learning difficulties, brain injuries and neurological conditions. The properties were to be fully equipped (e.g. with fall detectors; chair/bed occupancy monitors; video door entry; fire/flood and carbon monoxide detectors; cooker isolators; voice recognition; automated reminders; door management systems; epilepsy monitors; door and window controllers; and movement monitors) to assess individual need. They would be used to aid transition from the parental home (e.g. for young adults with learning disabilities) or on hospital discharge (e.g. for people with acquired injuries or conditions). They would also provide a demonstration area for clients to try out equipment and for community respite. Clients would then be assisted to move on to independent living with a tailored telecare package to suit their needs. This project experienced considerable delays with accessing the five properties and with their subsequent adaptation, though the required adaptations and equipment fitting had been made by the end of March 2008. The benefits from these facilities will therefore become apparent during 2008/09 and beyond.

The Partnership also wished to provide communication and prompting devices to clients with a range of cognitive problems (e.g. through Ablelink technology), but recognises that it needs to broaden its eligibility criteria to achieve greater local uptake of such devices.

The above paragraphs confirm that the case study Partnerships focused on a variety of client groups and types of equipment. The visits to the case study sites during the summer of 2008 provided an opportunity to gather feedback on local experiences from users, carers and professionals. This feedback is summarised below:

- How much choice should be provided?
  - Opinions varied on this, with some Partnerships favouring a core package of equipment for consistency across users, whilst others found that some clients did not want some items of equipment (e.g. some forms of flood detector), as they could not see that they needed it (even if it was free of charge);
  - To a certain extent the degree of choice will depend on the items that are included in the core package (e.g. does the core package include PIR monitors?), which in turn may depend upon the type of responder service that is operated;
  - There also seems to be a trade-off between not providing people with equipment that they do not need and/or want and giving people the opportunity to become familiar with some forms of equipment at a relatively early stage.

- Popularity (or otherwise) of common pieces of equipment:
  - Most telecare packages include pendants, which can either be worn around the neck or the wrist;
  - Some clients had no problems with these (though the wrist pendants were generally more popular than the neck pendants), but others were reluctant to wear them (e.g. they were uncomfortable; they got in the way; they were worried about setting them off accidentally);
  - One interviewee referred to a pendant that could be attached to the wearer's clothing being used for a person who had experienced problems with both neck and wrist pendants, but no other mention of this was made during the evaluation;
  - Most clients were happy to accept smoke and extreme heat detectors, though one Partnership found that the extreme heat detectors were unsuitable for clients who liked to keep their home relatively cool overnight;
  - Smoke alarms can be useful for alcohol dependency issues (especially those who also smoke);
  - PIR movement detectors were generally popular where used, as people liked the idea that services would be alerted if there was no movement detected for a few hours;
  - However, some people found this intrusive and restrictive and others sometimes forgot to press the relevant button to alert the Call Centre they would be out of their home for more than six hours;

- Some flood detectors are rather cumbersome (one person described theirs as "*looking like an air freshener*") and only provide an alert in the event of a flood, rather than prevent it;
- Falls detectors were generally unpopular, with many users saying that they were uncomfortable, or that they went off too easily (though others worried that they would not be triggered if they slipped slowly to the floor rather than fell quite rapidly);
- Because of being uncomfortable, some users did not wear their falls detectors (even if they had had a history of falls);
- In addition, some people did not want their families to know that they were prone to falling, and so did not wear their monitors;
- The Partnerships tried to find innovative solutions if possible where clients were resistant to some pieces of equipment (e.g. a bed sensor and a pull cord in the bathroom could be installed to prevent a user from believing that she should wear her pendant in bed);
- Various combinations of door alerts, bed sensors and pressure mats can be helpful for some users (e.g. those with dementia or learning disabilities), though pressure mats tended to be less popular with carers;
- Door entry systems help some vulnerable people to feel safer in their homes;
- A carer had been very impressed by some lifestyle monitoring equipment that had been installed (which she had been able to log into from home), as this had shown that her mother (who was beginning to suffer from dementia and other physical problems) would be able to remain safely in her own home after being discharged from hospital;
- Those with direct experience of medication reminders and pill dispensers identified a number of problems with these, but also recognised the importance of ensuring that those relying on taking medication to remain in the community are helped to take the right tablets (which may amount to 40-50 per day) at the right times[50];
- Installation problems were encountered where people relied on a mobile telephone and did not have (and were unwilling to have, due to the associated costs) a telephone landline, which is becoming increasingly common in some areas (especially urban ones) – although ruggedised alarms could provide a temporary solution.

Several of those interviewed stressed that although telecare equipment can deliver many benefits and has *"vast potential"*, it is not appropriate for all users. For example, they pointed out that some people with dementia can find the equipment very stressful and confusing (e.g. when a voice speaks to them without someone being there in person), as they do not understand its purpose.

Finally, several people raised the need to provide service users with more information about their equipment. This should be at a level that would help them (and their family) understand more about the equipment and what to do in certain circumstances (e.g. after a power cut).

[50] Home Care services are generally not available to people only needing assistance with taking their medication, and some primary and community care services are not provided at weekends.

13.5 VIEWS AND EXPERIENCES OF TELECARE USERS AND CARERS

Although the YHEC postal questionnaires (see Sections 7 and 8) were the main way that feedback was obtained from users and carers, the case study site visits provided the researchers with an opportunity to meet a number of clients and to learn more about their specific experiences. A few carers were also interviewed in person or by telephone and some anecdotal examples were provided by staff working closely with telecare clients.

Many of the points raised during the visits mirrored those from the questionnaires (see also Appendices I and J). They showed the extent to which telecare equipment can enable people to live more independently and with less anxiety. They also highlighted the contribution that can be made by a 24/7 professional responder service.

It was clear that some users with complex needs (e.g. severe physical disabilities; epilepsy or blackouts) have benefited considerably from telecare equipment, which in part has helped them have more independence (and a 'more normal' life) by reducing their reliance on professional carers. Prior to the introduction of their telecare equipment, some of these clients had needed 'round the clock' access to professional carers due to the severity of their condition. For example, the introduction of bed monitors could enable users with epilepsy to enjoy greater independence, as shown in the epilepsy example below.

How Telecare Has Helped a Man with Epilepsy

Bob is a middle-aged man with learning difficulties. He also has severe epilepsy, and needs to receive medication within five minutes of a seizure occurring. These seizures tend to occur as he goes to sleep or awakes from sleep. Until about a year ago he had 24-hour waking support, and the carer would check on him on a regular basis throughout the night. Due to the introduction of an epilepsy bed sensor, he now has a sleepover carer in the next room, who is alerted by the Call Centre as soon as the epilepsy sensor is triggered. The carer can then administer the required medication and ask the Call Centre to send additional support if necessary. Since the installation of the bed sensor, Bob has slept much better at night, his health has improved, and he has experienced far fewer seizures. Recently, for the first time, he had no seizures for a whole month, and the use of the bed sensor has greatly enhanced Bob's quality of life. The telecare equipment means that it is much less likely that staff miss a night-time seizure. Furthermore, sleepovers are easier to staff than a waking nights service, and also less expensive to provide.

Some clients with highly specific needs have also been able to benefit from specialised telecare equipment. For example, one client had such severe mobility problems that he was provided with a specially designed tube to blow into to contact the Call Centre when he needed help and assistance. Telecare equipment means that some clients with severe disabilities are now able to be left unattended in their homes for periods of time, and are less likely to need waking night or sleepover care. Significantly reducing the amount of time professional carers needed to spend with telecare users gives them more independence and reduces the intrusion in their lives (although they may still need a considerable amount of ongoing care from professionals on a day-to-day basis). Some telecare users with long-term problems have also experienced considerable improvements in their health, which can lead to fewer hospital admissions, as shown by the example below where a man with multiple

disabilities and frequent hospital admissions has not needed to be admitted since becoming a telecare user (and has also enjoyed a variety of other benefits).

Cessation of Hospital Admissions for a Man with Multiple Disabilities

Alan is a severely disabled double amputee with serious physical and mental disabilities. Although confined to a wheelchair, he is able to undertake domestic tasks (e.g. shopping) and attend social activities outwith his home providing he is accompanied by a member of his team of professional carers (to ensure his safety). Due to a whole variety of problems, he is very prone to chest and bladder infections and recently spent many months in and out of hospital because of these. He was provided with telecare equipment in his flat after his most recent discharge, which has reduced the amount of time his carers need to spend with him during the day and in the evening and removed the need to stay with him overnight. The carers have been able to use some of their time with him to help him improve his general diet and lifestyle, which has improved his mental and physical well-being (e.g. controlling his diabetes) to the extent that he has not needed to be re-admitted to hospital since he was issued with the telecare equipment.

Other interviews and discussions showed clearly that the nature of the local responder service can have a very important impact on the effectiveness of the telecare equipment. Responder services are discussed in more detail in the following sub-section. One user with a basic telecare package and a history of falls was full of praise for the response service when she fell recently and needed to go to hospital. On a previous occasion she had lain on the floor for many hours, whereas on this occasion her lack of movement had been detected by the PIR monitor. However, it was interesting to note that the response service could have been alerted more quickly if she had been wearing her pendant at the time. She has now had her neck pendant replaced by a wrist pendant, which she is much more willing to wear. Several stakeholders raised the problems of getting clients to wear their equipment (e.g. pendants and falls monitors) regularly.

Door alerts can often be used for clients with dementia who are prone to wander, so that someone within the house (or a response service) is alerted if the door is opened. This can be very reassuring for carers. It is also possible to incorporate a voice message to tell the client to go back inside if they do open the door (though one carer pointed out that hearing such a message just made her mother argumentative!). As shown in the following vignette, this type of technology can also be used for other client groups, such as an adult with learning difficulties, to the benefit of both user and carer.

A Door Alert System Promotes a Carer's Peace of Mind

Margaret is in her mid 30s and lives with her mother. She has learning difficulties and bipolar disorder, but is also quite active. Recently she started leaving the house at all times during the day and night, sometimes going out in her nightclothes. Her mother was alerted to this by the local papergirl and by a neighbour. Fortunately Margaret had come to no harm whilst outside at night, but she lives in an area that is quite rough in places (e.g. where it is frequented by alcoholics), and was therefore very vulnerable.

She now wears a specially designed 'watch' (its colour and design had to be acceptable to her, otherwise she refused to wear it), which triggers an alarm within the house if she tries to open the front door, and also prevents her from unlocking it. Her mother is able to sleep much better now that she is not worrying about Margaret leaving the house at night.

Several informal carers were met or interviewed during the site visits, and they were full of praise for the telecare systems, which they felt gave both them and the cared for person more independence (as also shown in the above vignettes). The following vignette shows how one carer from a nursing background was converted from being openly hostile to a keen supporter of the concept.

A Converted Carer: *"If I won the Lottery, I'd get Telecare for Everyone!"*

Janice had worked as a nurse for over 40 years in a variety of settings, including hospitals and care homes. She admitted that she had a very negative attitude towards telecare and believed that care should only be provided by "professional" nurses.

Her views *"underwent a 360° turn"* about five years ago when she worked in the community as a Home Carer for a year and when she took on a significant role as an informal carer for several family members. Whilst working as a Home Carer she sometimes had to contact Care Call on behalf of her clients and was very impressed by the service. When her parents and her mother-in-law began to need more help and support to remain living at home, they began to use telecare equipment (such as falls monitors). This provided her mother-in-law with *"greater independence and freedom"* and gave her mother *"tremendous reassurance"* after her father died. Prior to installing the telecare equipment, her telephone bills had been £700 - £800 a quarter because of her frequent calls to check that they were alright; these have now reduced dramatically. Her husband has also used telecare equipment since his health started to fail, which has enabled her to continue *"to get on with my own life"*.

She now says that she cannot speak too highly of telecare and that she would not have been able to cope, in her capacity as an informal carer, during the last five years without it – *"It's one of the best services my family has ever come across"*.

13.6 RESPONDER SERVICES

One of the main lessons learned from the case study visits is the potential importance of a 24/7 professional responder service (e.g. with staff in uniforms using vehicles with logos, preferably working in pairs). The two case study Partnerships serving predominantly urban areas operated fully professional services managed in tandem with their local community alarm response service. These Partnerships serve areas with high levels of socio-economic deprivation and these areas are also relatively compact geographically. The call centres used by these Partnerships use computer software that provides details and full contact histories of every client, and these appear on screen when a call is received. As well as enabling the call handler to use the client's name (which the clients can find very reassuring), they can also respond quickly and appropriately due to the on-screen details. As all telephone conversations are recorded, the system can be used not only to improve staff training but also to provide protection for call handlers in the event of a complaint. Staff at the call centres were clearly very competent and well trained in using the software and responding to calls.

Although work as a call handler or as a responder can be stressful and often involves anti-social hours and relatively low pay, the two services seemed to have few problems with staff recruitment and retention and the service users who were interviewed were full of praise for them.

One of the main benefits of operating a 24/7 professional responder service is that an appropriate response can be instigated immediately, because there are no delays trying to contact named family members, friends and neighbours (though they would, of course, be contacted subsequently if necessary). One user said that she would not hesitate to use her alarm during the night if necessary, because of the professional service (*"that is what they are there for"*). Had the service just alerted a member of her family, she said she would probably wait until the morning before contacting the service (assuming she was still able to do so), so as not to disturb her family during the night. However, it is important that there is a 'critical mass' of clients within an accessible geographical area for a responder service to be effective and sustainable.

The two Partnerships serving more rural areas were very aware of the shortcomings associated with running a call centre that alerts a named person or people in the event of a problem, but does not provide a dedicated responder service that can visit the caller if necessary. This problem can become quite serious if a telecare user does not have family or friends living nearby who can be contacted in an emergency. In some instances potential users have had to be denied the use of telecare equipment if they have not been able to identify the necessary number of named contacts.

These Partnerships have explored local alternatives, such as working closely with a voluntary organisation, such as the Red Cross. A range of possible innovative and imaginative solutions were mentioned during the interviews. These included greater integration of responder services with home care services (especially if these operate during the night to provide toileting and other such services) or widening the responsibilities of mobile wardens who currently work with residents of sheltered housing complexes. In some areas it is possible to place contracts with a local private service (e.g. one that provides home care and similar services). Whilst offering a potential solution for some users, such arrangements can be very expensive and potential telecare users may be unwilling or unable to pay the required charges (e.g. of about £20 per week to be the first named contact and £30 per call out).

Several of those interviewed recognised that social services and the NHS will need to provide a wider range of 24-hour services if increasingly frail and disabled clients are to be maintained in their own homes rather than in hospitals (including community hospitals) or long-term care. They stressed that telecare needs to be integrated into more extensive packages of support services. There is considerable potential to develop generic support workers who work across NHS and Local Authority services and have a clear career path. Such staff may be able to contribute to the provision of responder services.

It was also pointed out that it may become harder for telecare users to identify named contacts from their families, neighbours and/or friends as they become increasing frail and needy. Such informal carers may be willing to act as a named contact for the call centre if they are only contacted occasionally, but may be less willing to take on such responsibilities if they are called upon frequently and/or during the night (especially if they themselves are frail and/or in poor health).

Another potential problem for a professional response service is gaining access to someone's house, if this is necessary. However, it is usually possible for clients to ask a neighbour to be a named keyholder, unless they live in a very isolated location. The other possibility is to use coded key safes attached to the property itself, though it has been suggested that these can invalidate some household insurance policies.

13.7 FINANCIAL CONSIDERATIONS

The case study sites were also used to try to explore some of the additional financial consequences associated with developing telecare services. These discussions focused on two broad areas – charging and additional costs incurred by other services. However, it generally proved too early to get any clear views on either of these issues from the experiences of the case study sites (this aspect is also discussed in Section 15).

User charges can fall into two categories – those associated with the equipment (e.g. to meet future maintenance and replacement costs) and those linked to operating the call centre and (possibly) a professional responder service. In some places the attitude towards charges is partly determined by the way the local community alarm service is operated. If charges are levied for users of the community alarms service, they are more likely to be applied to telecare services. Some case study Partnerships have managed to avoid introducing charges to users of telecare equipment to date, but thought that it may be *"a matter of time"* before they need to do so. As well as being opposed to this on moral grounds, some of the interviewees felt that charges would be resisted by some potential users and were anxious not to exclude people due to needing to levy (even small) weekly charges. However, one interviewee stressed the importance of ensuring that users were receiving their full benefits entitlement (e.g. Attendance Allowance) to help enable them to meet such charges. It was suggested that this would be more likely if telecare needs were identified as part of a wider assessment of a person's need for care and support. An alternative view was voiced by one interviewee, who suggested that users were more likely to appreciate a service for which they were paying a small charge (e.g. about £1.25 per week).

It was not possible to identify any additional costs being incurred within the case study Partnerships because of the more widespread use of telecare equipment. There are several reasons for this. Although the Partnerships recognised that their Call Centres (and, where relevant, responder services) were facing additional demands as the number of telecare users increased, these had not yet been quantified. With regard to greater demands being placed on other services (e.g. home care), the view was that telecare is part of a package of services that are helping to keep more people in the community for longer (i.e. *"part of the system rather than an add-on"*), and that its specific financial impact cannot be identified. In addition, it is important to recognize that the TDP funds were intended for capital developments, with the necessary revenue funding being provided from within the Partnerships. This meant that none of the case study Partnerships (nor, indeed, the other Partnerships) identified and managed separate budgets for their telecare services.

However, given their relatively modest expenditure on telecare when considered in the context of their overall expenditure on social care and support services, a separate budget for telecare services may not be seen as necessary (or appropriate).

One respondent felt that there was a *"finite pool"* of people who could have their home check visits and/or sleepovers reduced and indeed that there might be a *"finite saturation point"* for installing telecare services (at least for some user groups). Others, however, felt that promoting telecare could *"open the floodgates of demand"*. Another interviewee pointed out that the local financial impact of telecare services partly depended on pressures elsewhere in the system. By way of illustration, they said that if there are local waiting lists for places in long-term care, keeping one person out of long-term care through telecare simply meant that someone else would move into the place the first person would otherwise have occupied, without delivering any financial savings to the Local Authority in terms of reducing the fees paid for care home beds.

Finally, several interviewees stressed that telecare services must not be seen as a way of saving money by replacing other services if they are to gain local support. They felt that savings would come from the overall redesign of services, with telecare contributing to the redesign process.

13.8 CONTINUING THE PROGRESS

The case study Partnerships feel that they have now established their local telecare foundations and are in a position to build on these. They welcome the additional funding from JIT during 2008-10. Overall, they made considerable progress during 2006-08, often despite difficult local circumstances. The Project Managers appreciated the ongoing support they received from JIT. They also commented that although they had found some aspects of the Quarterly Returns difficult, they had found that completing them was a valuable discipline, as it enabled them to monitor their local progress and, in some cases, they were able to use the required information to argue locally for ongoing funding.

With regard to future developments, some case study Partnerships feel that they are now in a position to progress projects that they identified in their Stage 1 forms but have not yet been able to establish. Others, however, have also identified some new opportunities for telecare. One Partnership, for example, is keen to explore the possibilities of using some types of equipment (e.g. bed sensors and PIR movement detectors) in its community hospitals. The local acute hospital is being upgraded and patients will ultimately be cared for in single rooms. There is considerable potential for the greater use of telecare equipment in a wide variety of situations now that the seeds have been sown.

Section 14: Moving on from the TDP 2006-08

14.1 TDP FUNDING AND PARTNERSHIP PLANS FROM APRIL 2008

In March 2008 the Scottish Government announced a further £8 million of TDP funding, with £4m being available in 2008/09 and £4m in 2009/10. This money is to be made available under the same conditions as previously, in that it is capital funding and is to be used to secure further mainstreaming of telecare services. On the basis of a review of progress undertaken by JIT, it was determined that 23 local Partnerships were making good progress with the mainstreaming of telecare, with six Partnerships doing particularly well:

- Partnerships assessed as 'progressing' were offered an additional sum of £125,000 for 2008/09;
- Partnerships assessed as 'progressing well' were offered an additional sum of £200,000;
- Partnerships making slower progress were offered assistance in the form of an externally conducted telecare review, with the relevant local Partnerships then, depending on the outcome of the review, eligible to seek additional funding.

When JIT offered Partnerships additional TDP funding for 2008/09 their responses to the offer were recorded[51]. The majority of Partnerships stated that they would use the 2008/09 funding to continue, improve, or increase the capacity of the projects they initiated throughout 2006-08. In particular, most Partnerships planned to use their funding to procure new telecare equipment or to upgrade existing equipment. Table 14.1 lists the client groups which were stated by Partnerships as being specifically targeted in 2008/9. Table 14.2 provides a summary of other responses.

Table 14.1: Summary of targeted client groups in 2008/9

Client Group	Number of Partnerships	Percentage
Older People	6	18.8%
Learning Disabilities	6	18.8%
Physical Disability	5	15.6%
Dementia	4	12.5%
Mental Health	3	9.4%

[51] Information in Tables 14.1 and 14.2 was provided by JIT. Only 23 Partnerships were invited by JIT to secure an additional sum in 2008/09, as the remaining nine Partnerships had been assessed by JIT as "making slower progress". The information in Tables 14.1 and 14.2 is therefore based on responses from these 23 Partnerships.

Table 14.2: Summary of Other Responses to Offer of Telecare Allocations 2008/9*

Response	Number of Partnerships	Percentage
Pilot of Telehealth / Telemedicine	15	46.9%
Improve services in sheltered housing	6	18.8%
Staff training	6	18.8%
Appoint a Telecare Development Officer or Manager, extend staff contracts or appoint other telecare staff	5	15.6%
Develop specific virtual villages or smart houses/flats or telecare demonstration houses/flats	5	15.6%
Medications management (e.g. pill dispensers)	3	9.4%

* *Some Partnerships gave more than one response.*

Partnerships were also asked by YHEC in the Quarter 4 Return whether their current projects would be continuing into 2008/09 and if they had any plans to roll out telecare further. Almost all of the Partnerships replied in the affirmative, and their responses are shown in Appendix M.

14.2 TELECARE STRATEGY 2008 - 2010

14.2.1 Introduction

After its initial investment in telecare over the period 2006-08, The Scottish Government published a strategy outlining the aims and objectives of the Telecare Development Programme from 2008 to 2010[52]. Within this document a vision for telecare is outlined:

By 2010:

- Telecare will be widely understood and accepted by service users, carers and health and care professionals alike. Local political leaders will appreciate what telecare can do for their constituents and actively promote its use;
- All 32 local care Partnerships will be actively engaged in implementing telecare based services to meet service user needs, and telecare will have been fully incorporated into assessment and service delivery processes;
- There will be a more effective working arrangement between health and care services at a local level, with the boundaries between these services becoming less rigid as the technology helps to redefine roles and options;
- Social housing providers will be active partners in the implementation of effective care solutions based on telecare, and local authority housing strategies will actively promote telecare solutions for vulnerable people in private accommodation.

[52] Joint Improvement Team. *Seizing the Opportunity: Telecare Strategy 2008-2010.* The Scottish Government, 2008. Available from http://www.jitscotland.org.uk/knowledge-bank/publications/telecare/ (accessed October 2008).

By 2015:

- All new homes, public and private, and all refurbished social housing, will be fitted with the capacity for care and health services to be provided interactively via broadband from day one of occupation;
- The typical service user and their carers will be using the needs assessment process to actively request and secure telecare based services, normally as part of a broader package;
- This may also involve elements of health care monitoring and response. Telecare and telehealth will be widely recognised by service users and their carers as the route to greater independence and quality of life;
- Independent evaluation will confirm that no care service users in Scotland who could benefit from telecare services in a home-based setting remain in an institutional environment;
- Remote long term condition monitoring undertaken from home will be the norm;
- Scotland is recognised as an innovative world leader in the provision of care and health services based on telecare technology;
- All qualifying courses for front line health and care staff will include an element relating to telecare and other assistive/home care technologies as part of their core basic training.

14.2.2 Issues to Address in Extending Telecare Service Provision

The strategy identifies the following areas that need to be addressed over the period 2008 – 2010:

- **Communication with service users:** service users and their loved ones should continue to be informed about the benefits of telecare and any fears they may have must be recognised and addressed;
- **Staff skill development:** with a need to ensure the availability of good quality basic telecare awareness training to a large number of people (including staff from housing, health, and social care services, and call centre staff);
- **Service standards:** service providers must be able to demonstrate that services are being provided in a way that meets appropriate standards;
- **Cultural change:** any concerns that service providers may have over the adoption of new ways of operating must be acknowledged and addressed.

14.2.3 Deliverables and Timescale

The following constitute the core elements of the telecare strategy to 2010:

- **Extension of telecare services to more people:** it is expected that at least 7,500 additional people will be able to maintain themselves at home by 2010 as a result of the new TDP funding;
- **Innovation in service delivery arrangements:** e.g. pilots to investigate how broadband and wireless can facilitate contact between service providers and users, innovation in call handling arrangements;

- **Service standard enhancement:** via JIT's contribution to a review of standards being undertaken by the Telecare Services Association. The aim of this review is to agree a standards framework suitable for telecare provision in Scotland;
- **Single shared assessment enhancements:** ensuring that a telecare prompt is included within the Single Shared Assessment (SSA) in every part of Scotland;
- **New training opportunities:** a telecare training group has been established to progress the introduction of new continuing professional development courses and the training of call handlers/responders;
- **Better communication of possibilities and opportunities:** securing widespread media coverage, supporting high profile events, further development of the JIT website etc;
- **International collaboration:** with an intention to establish a programme of work with other European countries.

14.3 PROGRESS SINCE MARCH 2008

JIT has continued to monitor the progress of the Partnerships with a modified quarterly data collection form from 1 April 2008. The summary data for the first quarter of 2008/09 are presented in Appendix M. This Appendix also includes the activities to be progressed by the Telecare Programme Board during 2008/09.

Section 15: Discussion

15.1 OVERVIEW

The above sections have presented the main findings from the external evaluation of the Scottish Telecare Development Programme (TDP) during 2006/07 and 2007/08. This section presents the key messages that emerge from the evaluation.

It must be noted that this evaluation has focussed on aggregated data for a wide range of telecare initiatives that have been introduced and developed in many different settings and circumstances across Scotland. Other published evaluations (see Appendix C) have tended to looked at the experiences of one specific telecare project.

It is also important to recognise that, although this evaluation covers the period of 2006 - 2008, most of the projects only started to operate during 2007/08, with the result that most of the data on which this evaluation is based have only been collected over a relatively short period of time, and that many of the initiatives had not reached 'steady state' by the end of March 2008. Their impact is expected to become more pronounced during 2008/09 and 2009/10 (see Section 14).

Finally, it is important to recognise that some Partnerships found the task of specifying anticipated outcomes and efficiency effects and later recording progress against initial expectations very challenging. Those tasked with completing the Quarterly Returns were in some instances managers whose primary strengths lay in organisation (i.e. in getting telecare initiatives up and running) rather than data recording. Moreover, compiling the information required for the Quarterly Returns was a new form of data collection for all Partnerships, and encountering initial difficulties with new forms of data collection is quite common[53].

[53] For example, it is noticeable in England that, after the introduction of a new Reference Costs* procedure code there can be a high variation in submitted data year on year until a state is reached where there is some level of agreement as to what elements contribute to this code and the levels of associated costs.

*Reference Costs are the average cost to the NHS of providing a defined service in a given financial year. Data is collected annually from Trusts. Reference Costs publication shows details of unit cost, average length of stay and activity levels for a wide range of services. For further information see http://www.networks.nhs.uk/news.php?nid=2049 (accessed December 2008).

15.2 OVERALL PROGRESS

The speed of progress has varied considerably both between and, in some places, within the Partnerships. It has tended to be faster when one or more of the following applied:

- The foundations for supporting telecare had already been laid locally before autumn 2006 (e.g. through introducing some second generation enhancements of existing community alarm services);
- The Partnership had a clear focus on developing one (or possibly two) relatively straightforward (but far-reaching) initiatives;
- The Partnership was either undertaking a generic upgrading of existing equipment or rolling-out core packages of telecare equipment to more clients.

Progress also seemed to have been facilitated where those responsible for driving the local developments were not overly reliant on the co-operation and involvement of other agencies. For example, those local authorities that needed to work closely with staff from health care and/or housing departments could get caught up in other sets of priorities and pressures. This was less likely to occur where there were already good joint working arrangements, but it was clear that agencies in some Partnerships had not established these. However, some Local Authorities also had their own internal problems, such as local freezes on staff recruitment (even when the funding had already been identified and had previously been agreed locally) and high levels of sickness amongst senior managers and vacancies for senior posts (which delayed the endorsement of key decisions, such as agreeing the local eligibility criteria for telecare equipment). Those Project Managers with a significant degree of local control and influence tended to make faster progress.

The importance of having a Project Manager with sufficient time to do the necessary work emerges clearly from the evaluation. Many Partnerships employed (or seconded) an appropriate person to the Project Manager post. This tended to be a successful model, though there was a potential danger in such situations of telecare being seen locally as a 'parallel' pilot activity rather than as a developing mainstream activity. Those Partnerships that incorporated the development of telecare services into the existing workload of other local managers were more likely to struggle, unless these staff had clearly identified protected time and support to undertake their telecare-related responsibilities.

Partnerships with considerable high level support for developing telecare services were also much more likely to make progress with implementing their plans. Although all Partnerships had to show evidence of support from their Community Planning Partnership in their Stage 1 return, it is clear (see Section 12) that some Project Managers were hindered by a lack of commitment from local senior managers and officers. Many Partnerships (see Sections 12 and 13) referred to the importance of raising people's awareness of telecare and what it could contribute. Introducing local developments that included relatively large numbers of telecare service users (possibly from several client groups) was seen as being one way of ensuring that senior managers and officers heard about telecare and its impact on a regular basis (e.g. at strategic and operational meetings). One Partnership referred to a local objective of *"maximising exposure to telecare"*. This continuous publicity was less likely to

occur if local telecare developments were focusing on a small number of service users from a specific client group. In addition to having good high level recognition of the importance of telecare, a local senior manager acting as a 'Telecare Champion' also tended to promote awareness of developments on an ongoing basis.

Information from the Quarterly Returns indicates that some Partnerships were expected to provide regular local reports and feedback on their progress with implementing telecare services. In some places this information was needed to support local applications for additional funds or for the services to become mainstreamed. These requirements ensured that Project Managers monitored their telecare service and its achievements as it progressed (and several such Managers found the data required for the Quarterly Returns to be very helpful). However, many Partnerships did not seem to operate such local requirements. There are several possible reasons for not doing so – for example, a lack of high level recognition of the potential importance of telecare; a lack of local resources (e.g. staff time) to undertake such work; or the feeling that telecare has relatively modest resource requirements compared with many other services provided by Local Authorities. Very few Partnerships commissioned an external evaluation of their local developments (Partnerships with relatively small TDP allocations may not have felt this to be cost-effective), though some did undertake internal local evaluations and produced reports on the findings. There is considerable potential to further develop a culture (especially within Local Authorities) of formally evaluating new initiatives (especially those with external funding) within Partnerships, which will both raise the local profiles of such developments and encourage accountability and better use of resources. It should also promote the skills required to collect and analyse data.

Overall, progress has been varied across the Partnerships during 2006/07 and 2007/08, for many reasons. Although where progress has been slow many factors were beyond the immediate control of those implementing telecare developments locally, some of the difficulties could have been prevented, or at least reduced. JIT has recognised that some of the Partnerships that struggled initially need additional help and support to implement their local plans for developing telecare services and will be ensuring that these Partnerships receive this during 2008/09 (see Section 14).

15.3 CLIENT GROUPS

The vast majority of the beneficiaries to date from the development of telecare services have been older people. They have been drawn from a wide spectrum – some already needed to be in receipt of home care services to be eligible for telecare equipment (and therefore to already have significant identified needs for care and support), whereas others have received their equipment because of a local focus on developing preventive services. Therefore some older recipients are relatively frail, whilst others are still quite active. Many older people will have long-term health-related conditions, such as respiratory problems or mobility problems. Some of these conditions may have generated frequent hospital admissions, though others are more likely to have increased the need for home care and other support within the home. The responses from users and carers indicated that many

users have a history of falls. Although telecare services will not prevent such occurrences (though other interventions may help to do so), they can ensure a speedy response in the event of a fall (which may reduce the likelihood of an adverse outcome).

One of the main telecare-related benefits clearly felt by many older people is the reassurance that their equipment provides (see Section 7). Feeling safe and secure in their own home (e.g. through the use of door entry systems and protection against bogus callers) and knowing that help is readily available if necessary can enhance their independence and contribute to improving their quality of life.

The experiences of several of the Partnerships show that telecare services can have considerable potential for use by people with dementia (who also tend to be older people). Many stakeholders felt that telecare equipment had helped some people with dementia to remain living in the community for longer, though it generally tended to delay rather than prevent their admission to long-term care (though this also depended on their personal circumstances). The data on prevented days spent in care homes show that a comparatively high proportion of these were associated with users with dementia. Movement sensors and door alerts were often highly valued by the carers of people with dementia, as these could alert them to a potential problem, such as wandering out of the house. However, the effectiveness of such equipment also depended upon the speed of response if the alarm was triggered. A live-in carer, for example, could generally react much more quickly than one that lived elsewhere and/or one with other commitments, such as a job.

Another difficulty associated with using telecare equipment to help people with dementia remain living in the community was that they often did not understand it, and indeed could be alarmed by it. They also had problems if it needed to be reset (e.g. due to a power cut). However, some carers clearly appreciated sensor equipment that reduced the risk of users causing fire or floods in their homes, which could also place their neighbours at risk.

Telecare equipment has also been used successfully for people with learning disabilities. For example, it has given some young adults with such disabilities a greater degree of independence and freedom, enabling some to live in community settings (albeit often with significant other support) rather than with their parents or other family members. In such circumstances reassuring the family that the person can easily contact help if necessary can be a vital element in enabling that person to live more independently.

There are also some examples of telecare services enabling adults with certain long-term physical conditions (e.g. a history of serious asthma attacks) to live more safely in their own homes with less use of hospitals in times of crisis.

Although telecare equipment has the potential to be used as part of end-of-life care and may enable people to fulfil their wishes of dying at home, none of the TDP-funded projects seem to have explored this type of use to date. However, the equipment has proved useful for vulnerable people (such as the victims of domestic violence) and can help to provide them with safe havens within their homes.

Telehealth is another area that several Partnerships are keen to explore, though relatively little progress has been made with this to date. This has sometimes been due to different local health and social care agendas, and also due to opposition to the concept of telehealth in some places. However, now that local awareness of potential impacts has been raised through the development of telecare services, some local climates may now be more suitable to extend developments to include telehealth as well as telecare equipment.

Finally, it is important to appreciate the positive effects that many carers have experienced due to greater use of telecare equipment. Most feel less stressed and anxious, though the extent of the impact will generally depend upon the demands made by their role as a carer and the presence or absence of a local responder service. For some carers, the equipment had enabled them to keep working and/or to spend more time with other members of their family (e.g. their children). Others (and especially those living with the cared for person) appreciated being able to do their shopping without rushing or being able to meet a friend for a coffee, because they knew they would be alerted if there was a problem whilst they were out of the house. The carer questionnaires (see Section 8) showed that caring can be very demanding (often for both parties) and that any ways of reducing these pressures are very welcome. However, a few carers clearly found that knowing they would be contacted if any problems arose added to their personal stress levels.

15.4 TYPES OF EQUIPMENT

The Partnerships offered a variety of types of telecare equipment to their clients. The most popular approach was to offer 'core' or 'extended' packages of telecare equipment (e.g. second generation items) to older users, depending on their needs. However, some found that it was more appropriate to offer bespoke packages to their service users.

Neck or wrist pendants are clearly used very widely. It is important that people are offered a choice about which suits their needs best – the user and carer questionnaires (see Sections 7 and 8) suggested that many users do not wear their neck pendants regularly for a variety of reasons. However, although most users with experience of both types preferred the wrist button, this was not always the case. If one piece of equipment does not perform as expected, it is important that, if possible, an alternative is tried.

PIR movement detectors seem to be very popular where these are used, and can certainly contribute to users' feelings of safety and security, as do intruder alert buttons on front doors, which are activated if the property is entered whilst the telecare user is out. A few, however, find that movement detectors can be restrictive (though this is likely to depend on the period of time that elapses before non-activity is recorded). These detectors can be particularly useful in the event of a fall, especially if there is a local responder service that can visit the user quickly if necessary.

Experience with falls detectors seems to be mixed, though they were generally not very popular with users. Some find them uncomfortable and others commented that the wearer needs to fall in a particular way (i.e. quite suddenly, rather than just sliding to the floor) for them to be triggered. Some found them over-sensitive, whilst they were not sensitive enough for others.

Flood detectors were not considered to be particularly useful, as they are only activated when a 'flood' has occurred. Other more preventive technologies are available, which can turn the water off (e.g. to prevent a bath or a sink form overflowing). It was also suggested that they look like air fresheners and can be a hazard if located on the floor.

Heat extremes detectors can be useful, though it is important that they are not activated when the temperature drops at night for users who like fresh air in their bedrooms (even on cold winter nights) and/or who dislike leaving their heating on overnight.

Sensors that turn off gas and electrical appliances when necessary can be very useful, especially for users with dementia. Such devices are also appreciated by the users' neighbours (who may also be affected by a fire) and by their carers (who may worry about the user forgetting to turn domestic appliances off after use). However, it is important that the user understands how to re-instate their cooker (or whatever device) after it has been switched off due to an alert.

Bed sensors were very useful for some users, though not for all. They could be very useful for people with epilepsy (and especially for those needing immediate medication in the event of a seizure). They could also be useful for people prone to wandering at night, or at risk of falling in the bathroom (or on their way to or from it) at night.

Door alerts could also be very useful for users with a tendency to wander, such as those with dementia or learning disabilities who would be unable to find their way back and would be very vulnerable if they left their home unaccompanied (especially at night).

Users (and carers of users) of lifestyle monitoring equipment spoke very highly of it, as it enables activity patterns to be captured and analysed over a period of time. Patterns may be very different in reality from what carers and service providers think is happening. For example, the fact that a neighbour sees that the upstairs lights are on all night may not mean that the user is wandering around throughout the night, as it may be that the user has left them on so that they can see to visit the bathroom once or twice during the night. Other solutions (such as movement activated lights that come on as the user gets out of bed) may be suggested as a consequence of the use of lifestyle monitoring equipment and fears about wandering may prove to be unsubstantiated.

15.5 THE FINANCIAL AND ECONOMIC CONSEQUENCES

The 'savings' that can be attributed to telecare are of considerable interest to policy makers. These are generally considered (as they are in this evaluation) in terms of the values of the 'savings' made by other services (e.g. by reduced use of hospital beds or of places in care homes). This evaluation has shown that the implementation of telecare services has resulted in many benefits for users (and also for carers). It is easier to place a financial value on some of these than others.

As previously discussed, Partnerships were asked to report progress against the anticipated outcomes and efficiency effects stated in their Stage 2 forms within their Quarterly Returns. A number of the outcomes (and corresponding efficiencies) reported are necessarily based on what Partnerships think might have happened if telecare had not been available (e.g. admission to a care home or an extended stay in hospital). Prevented situations are intrinsically difficult to predict and measure. YHEC distributed a paper to Partnerships giving advice on how to make appropriate estimates (see Appendix G) but, nevertheless, the robustness of the estimates made depend on the knowledge and background of the person (or people) involved in completing each Partnership's Returns. The outcomes and efficiencies values documented in this report are for these reasons best interpreted as indicative of some of the benefits that telecare had delivered by 31 March 2008.

The user questionnaires indicated that a few respondents felt that their telecare equipment and service had saved their life. Although their opinion is inevitably subjective, such a consequence is clearly very important. However, the vast majority of users have probably enjoyed somewhat less dramatic (albeit important) benefits, such as increased independence and improved quality of life. It is interesting to note again that the Quarterly Returns showed that the majority of new telecare equipment was allocated to minimise client risk and to promote client independence (see Section 9). These benefits are clearly highly valued by service users, and in line with national objectives for older people and people with disabilities, but they are hard to quantify in financial terms.

Some of the Partnerships have generated considerable savings from reducing the numbers of home check visits needed by telecare users. However, this type of saving can only be realised where such home check visits were being made before the installation of the telecare equipment. This will depend on the operational policies of the local home care service. Many home care services have a strong focus on only making task-focused visits, rather than check visits, and so would not be able to realise any savings of this type.

Similarly, sleepover requirements have ceased for some users, including many with learning and/or certain physical disabilities. Installing telecare equipment can give the users greater independence and result in some financial savings, though it is important to remember that many of them will continue to need a considerable amount of support from (formal and informal) carers to live in the community.

Another issue is how best to capture the cumulative aspects of savings made. For example, how many times might a telecare user have been admitted to hospital in the absence of telecare equipment? Over time, the cumulative financial impact of keeping a person out of long-term care can be substantial. However, although the installation of telecare equipment may enable a user to live in their own home for longer, the extent of savings made will also depend on the amount of time the person would have been expected to have been in long-term care without the equipment. For some users (e.g. some people with dementia), the telecare equipment may *delay* rather than *prevent* their admission to long-term care. Savings from reduced sleepovers are more straightforward to aggregate over time, providing that it can be assumed that the beneficiary (e.g. an adult with learning disabilities) would otherwise have continued to need the sleepovers. The savings from reduced home check visits are also likely to be relatively straightforward to estimate, providing that the service user continues to live in the community.

Two other factors that also need to be taken into account are the potential for telecare to increase costs elsewhere in the system and the potential impact of other local initiatives with similar objectives.

Keeping people living in the community for longer periods may have knock-on consequences for service costs elsewhere. For example, increasing the numbers of users of core or enhanced telecare packages is likely to result in increased numbers of calls to the call handling centre (and increased use of the responder service, if applicable). This impact could possibly be managed by levying charges for a local telecare service. Appendix N shows that many of the Partnerships have introduced (relatively modest) user charges to help meet some of these costs. Such charges may also be used for funding replacement telecare equipment in the future.

However, enabling frail people to remain in the community for longer may also result in increased use of other services, such as home care, day care, primary care, carer support, and respite care. These are likely to be funded from different sources. The Partnerships have been unable to identify and quantify such consequences to date, but many are aware that there may be increased demands on some other services in the future because of greater use of telecare.

Again, it is important to recognise that telecare services are not operating in a vacuum. For example, a telecare user may experience a timely discharge from hospital in part because of access to such equipment within their home, but discharge may also be facilitated by other local services, such as intermediate care, re-ablement services, or services provided by the voluntary sector.

These considerations suggest that the potential impact of telecare in terms of generating savings elsewhere will depend not only on the client group and the specific nature of the initiative, but also on the local service environment. Some telecare initiatives are likely to generate low financial savings across many users with relatively low level needs, whilst others have the potential to generate significant financial savings for a small number of beneficiaries. In addition, telecare initiatives may generate small savings across a few users

or significant savings across many users. Partnerships clearly do not all have the same potential to deliver (and sustain) substantial financial savings, and some may instead choose to focus on initiatives which promote independence and quality of life.

It should also be re-affirmed that even where financial savings can be *identified*, it may not always be possible for Partnerships to *realise* these savings. For example, health and social care services are under increasing pressures to make efficiency gains and their funding allocations are often 'adjusted' (i.e. decreased) on the assumption that such efficiencies are being realised. In such situations no financial resources are available for release to fund other services (such as telecare) that are enabling the efficiency gains to be made.

Despite these caveats, the evaluation has shown (see Section 10) that the financial savings realised during 2007/08 are in line with those anticipated by JIT (see Appendix A). However, it is important to recognise that the published literature on telecare (and, indeed, on other service developments) tends to focus on reporting positive findings. More time is needed to show whether some types of telecare initiatives have greater potential to succeed than others, and what local factors are needed to facilitate success.

15.6 KEY LESSONS FOR THE FUTURE

In addition to the above points, a number of others should also be borne in mind when developing telecare services:

- It is vital to establish an appropriate culture locally (which will need to be reinforced for existing staff and established on an ongoing basis for new staff);
- It can take a considerable amount of time (e.g. up to 12 months) to undertake the required preparatory work;
- A smart house (or similar) can be a valuable resource (for demonstrations and staff training and for showing users and carers what is available);
- It is important for managers to keep up-to-date with technological development (e.g. through establishing good working relationships with equipment suppliers);
- In the future older people are more likely to be familiar with using technology, which may make it easier to introduce telecare and telehealth initiatives;
- However, as technology develops, fewer people may have telephone land lines, which might require some imaginative developments for links between users and call centres;
- The importance of an effective professional responder service must not be underestimated, though this can be difficult to provide in rural areas;
- More use of private and voluntary organisations to provide 'professional' responder services may be needed in some areas;
- Although some Partnerships have managed to avoid (e.g. due to ideological reasons) the issue of charging users for telecare services, this may not be possible over the longer term;

- Where charges are introduced, this will need to be done with tact and sensitivity (e.g. by also ensuring that users are receiving all of the financial benefits to which they are entitled);
- It will also be important for Partnerships to identify funds for replacing current telecare equipment in due course;
- Finally, greater emphasis needs to be placed by Partnerships on local monitoring and evaluation to promote local accountability and value for money.

Considerable progress was made with developing telecare services across Scotland during 2006 - 2008, though many of the potential benefits are still to be realised. However, the foundations are now in place and the potential use of telecare equipment is gradually becoming integrated into local needs assessments. The TDP funding (and JIT's support) should enable considerable progress to be made during the next two years and ensure that many people in Scotland (both service users and their carers) are able to benefit from greater use of telecare and telehealth equipment.

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