

The Telecare Development Programme in Scotland 2006-11



July 2011

Executive Summary

The national Telecare Development Programme (TDP) for Scotland was launched in August 2006 as a policy initiative to drive the adoption of telecare by local social and health care service providers.

Over the period to March 2011, some £20.35 million was made available by the Scottish Government under the programme. Of this sum, £2.75 million was used to fund an innovation programme and meet research and programme management costs, while £17.6 million was allocated directly to care partnerships to drive service expansion.

Approximately £13.6 million of TDP funding was reported as spent by local partnerships by March 2011, with another £5.9 million as match funding, giving a total spend of £19.5 million. The remaining £4 million grant funding allocated to local care partnerships is accounted for partly by carry forward into 2011/12 and partly through incomplete expenditure reporting by a number of partnerships.

Almost 44,000 people began a telecare service through TDP funding over the period 2006-2011; around 13,000 subsequently stopped receiving a service.

Around 2,500 hospital discharges were expedited as a result of TDP funding 2006-11. At the same time around 8,700 unplanned hospital admissions and over 3,800 care home admissions were also avoided.

By achieving the above outcomes, partnerships saved around:

- 546,000 care home bed days.
- 109,000 hospital bed days through facilitated discharges and unplanned admissions avoided.
- 48,000 nights of sleepover/wakened night care.
- 444,000 home check visits.

Overall, the gross value of TDP funded efficiencies over the period 2006-11 was approximately £78.6 million at current prices. It should be noted however that, unless actual care home bed reductions, hospital ward closures and other service adjustments were subsequently made, these efficiency gains will not have resulted in cash releasing savings.

In overall terms, the Telecare Development Programme has also shown that telecare can have a transformational effect on service user and carer quality of life and that it has the potential to play an important role in continuing efforts to shift the balance of care.

Introduction

The national Telecare Development Programme (TDP) for Scotland, which was launched in August 2006 as a policy initiative to drive the adoption of telecare¹ by local social and health care service providers (or 'care partnerships'), was formally brought to a close in March 2011.

TDP funding amounted to £20.35 million over the period 2006-2011. Of this total, £2.75 million (14 percent) was used to fund an innovation programme and to meet research and programme management costs, while £17.6 million (86 percent) was allocated directly to care partnerships to drive service expansion.

TDP funding was intended to:

- Increase the number of people in receipt of telecare services.
- Reduce the number of avoidable admissions to care homes.
- Reduce the number of unplanned admissions and readmissions to hospital.
- Reduce the need for other more expensive forms of intervention.
- Reduce the pressure on informal carers.
- Improve the quality of life of health and care service users - mainly older people, but also others with physical disabilities, learning disabilities or long term medical conditions.

This report presents data on the growth of telecare through TDP funding, based on quarterly reports submitted over the five year period by Scottish local care partnerships. It incorporates findings from previous studies (York Health Economics Consortium; Newhaven Research, 2009; Newhaven Research, 2010) to show the whole picture over the period 2006-11.

Expenditure

Over the year 2010/11, partnerships collectively reported total TDP expenditure of £3.1 million.

This brings total reported TDP expenditure by partnerships since the beginning of the programme to £13.6 million and represents around 77 percent of the £17.6 million TDP funding actually allocated to partnerships over that period. The remainder is accounted for by carry forward into 2011/12, and by the fact that (especially in the early years of the programme) some partnerships found it hard to extract expenditure data².

TDP funding for 2010/11 carried a requirement for match funding. At the outset, some £5.7 million was promised in match funding for 2010/11; partnership returns

¹ The term telecare is used here as it was defined within the Scottish Government (2008) telecare strategy: "Telecare is the remote or enhanced delivery of care services to people in their own home or a community setting by means of telecommunications and computerised services. Telecare usually refers to sensors and alerts which 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".

² It may in addition reflect an element of payment in arrears.

indicate that around £3.2 million match funding was actually spent over the course of the year.

Combining the reported TDP and match funding figures, the TDP programme was responsible for a minimum of £6.3 million expenditure in 2010/11. Across the 5 year programme as a whole the figure was £19.5 million.

Client Numbers and Turnover

Looking across the whole period of TDP funding, table 1 shows that over 43,000 people were assisted, with more than 30,000 (69 percent) still in receipt of a service of some kind as at March 2011.

For 2010/11 alone, over 14,000 people were newly recorded as receiving a telecare service. However, over the same period almost 6,000 people were recorded as having stopped receiving a service, leaving the net growth in telecare service users over the year as just over 8,400.

Table 1: TDP Funded Telecare Service Users

	2007-8	2008-9	2009-10	2010/11	Total
New Clients (gross)	7,902	8,580	12,807	14,376	43,665
Stopped receiving a service	679	1,819	4,861	5,968	13,327
Net new clients	7,223	6,761	7,946	8,408	30,338

Of the almost 36,000 people who began receiving a telecare service under TDP funding between April 2008 and March 2011, nearly 5,000 (some 13.6 percent) had previously been in receipt of some form of telecare assistance³. For 2010/11 alone, this figure was slightly lower in proportionate terms, at 12 percent.

Some 55 percent of those assisted in 2010/11 were provided with a basic telecare service, while the remaining 45 percent received an enhanced telecare service⁴; these percentages are unchanged from 2009/10.

The turnover rate (defined as the number of people that stopped using a TDP funded telecare service within a year as a proportion of the gross number of new clients within that year) increased over time (table 1). At local partnership level the turnover rate for 2010-11 ranged from a low of 12 percent to a high of 83 percent, but most (19 out of 32) local partnerships reported turnover at less than 40 percent for the year as a whole. A number of partnerships experiencing higher than average turnover rates were asked to comment on their turnover data. In response, these partnerships cited increased use of charging, integration of enhanced telecare services with basic provision and the targeting of telecare service provision in local areas as the main reasons why turnover had been increasing:

³ The monitoring form was amended somewhat after March 2008 and extended in March 2009; in consequence, some of the data reported here was not available all financial years.

⁴ For the purpose of completing quarterly monitoring returns, a basic service was defined as a telecare hub unit together with a pendant and an integrated smoke alarm. An enhanced package was defined as one that goes beyond the basic configuration and includes any other sensors or monitoring equipment.

“There has been a steady increase in turnover since our elected members announced that they were going to introduce charges for the service at the beginning of November 2010...we have had a substantial number of service users cancel their service as the result of the imposition of charging.....and it continues with each new set of accounts which go out”.

“[We have] large spikes in the 2nd quarter reporting - this tends to be about the time that our charging team write out to our clients with the proposed service charge for the year - this goes out in a standard format to the client which states the yearly charge at the top of the letter then breaks down payment options further down - this is a very poorly presented letter from our charging team - we have no influence on changing this format and this has seen clients return the alarms to us in this quarter put off by the details of the full yearly cost”.

“The standard alarm service tends to have a higher turnover than the telecare service, which may be affecting the data - normally the numbers of installs and removals are pretty similar from year to year so our overall client base is not significantly growing - what is growing is the proportion of clients moving from standard to an enhanced telecare service - we estimate this at about 10% of our standard client base per quarter”.

“The majority of those coming off telecare services have either passed away (which is the highest percentage) or have gone into long term care (second highest percentage). I am aware that some local authorities give telecare/community alarms to everyone once they reach a certain age (whether they need the system or not) whereas we do not and I would imagine that these people would remain receiving services for a longer period of time...It may be that our assessing staff are targeting and referring appropriate people who are most in need of the telecare/alarm service, therefore, the package is in for a short period and then the person passes away or goes into long term care (albeit the telecare has delayed the need for long term care for a short period)”.

These partnerships also confirmed that increasing numbers of people have been using recycled equipment as a result of turnover.

Client characteristics

Table 2 summarises information on the demographic and care group profiles of those assisted through TDP funding in 2010/11, and compares this with data for previous years.

The proportion with dementia in 2010/11 was roughly the same as in 2009/10. In total, by 31 March 2011, at least 4,000 people with a diagnosis of dementia had been assisted through the TDP programme, although in practice the number assisted is likely to have been much higher than this, due to the existence of undiagnosed dementia in the older population.

Table 2: TDP Client Demographic and Care Group Profiles (%)

	2007/8	2008/9	2009/10	2010/11
Age:				
Less than 16	0.2	0.3	0.3	0.5
16-64	9.5	12.4	15.6	14.8
65 or more	85.0	86.1	80.5	84.4
Unknown	5.3	1.2	3.7	0.4
Sex				
Male	32.6	33.9	33.7	35.9
Female	62.4	65.3	63.1	63.8
Unknown	5.0	0.8	3.2	0.3
Ethnicity:				
White	84.5	85.4	84.2	90.0
Mixed	-	0.2	0.1	0.2
Asian	0.1	0.1	0.1	0.3
Black	0	0	0	0.1
Other	1.6	0.2	0.1	0.1
Unknown	13.8	14.0	15.5	9.4
Community Care Group:				
Older	63.1	61.6	58.1	59.3
Mental health	2.5	2.3	2.4	2.6
Dementia	7.9	9.9	9.2	9.3
Physical	18.3	24.3	22.5	22.7
Learning disability	2.2	3.1	4.0	3.4
Substance misuse	0.5	0.4	0.4	0.5
Less than 16	0.2	0.3	0.3	0.4
Unknown	5.3	1.9	3.1	3.4

Reasons partnerships offer telecare

Table 3 summarises the primary reasons partnerships gave through monitoring returns for providing a TDP funded telecare service to people. There is considerable stability over time in the reasons partnerships report for deciding to provide telecare support.

Table 3: Recorded Reason for Offering Telecare to New Clients

	2008/9	2009/10	2010/11
Prevent admission to a care home	10.0	8.4	7.5
Prevent/lessen hospital admission risk	17.4	18.9	17.2
Facilitate hospital discharge	5.9	8.2	8.7
Improve carer piece of mind/respite	23.2	22.0	22.2
Meet a low level need	32.6	36.4	33.0
Other reason	10.9	6.1	11.4
Total	100.0	100.0	100.0

Outcomes

Since the inception of the Telecare Development Programme, local care partnerships have been asked to indicate what outcomes and efficiencies they expected to deliver each year with the aid of TDP funding. They subsequently recorded progress against these expectations by means of standardised quarterly reports. These reports capture what local partnerships believe would otherwise have happened to individual clients if TDP assistance had not been available⁵.

Table 4: TDP Outcomes 2006-10

	Partnership Expectations		Partnership Achievements	
	2010/11	2006-2011	2010/11	2006-2011
Reduction in delayed discharges from hospital	853	2,657	940	2,479
Reduction in the number of unplanned hospital admissions	1,758	5,561	2,142	8,740
Reduction in the number of care home admissions	915	3,940	1,147	3,814

Table 4 summarises partnership achievements in terms of outcome measures for 2010/11 and for the period 2006-2011 as a whole, against what partnerships said they expected to deliver using TDP funding.

Table 4 shows:

- Expectations on reductions in delayed discharges were exceeded in 2010/11, while over the period 2006-11 as a whole, the match between expectations and delivery was reasonably close.
- Significantly stronger performance than expected was achieved in reducing unplanned hospital admissions.
- Good performance against expectations was achieved with respect to reduction in the number of care home admissions in 2010/11. Performance in this regard across the period 2006-2011 as a whole was also reasonably close to expectations⁶.

⁵ The rationale and justification for this approach, which covers both specific outcomes (such as hospital discharges expedited and hospital/care home admissions avoided) and consequent efficiencies (such as hospital/care home bed days saved), was discussed in the initial evaluation report prepared by the York Health Economics Consortium (2009)

⁶ It is worth noting more generally that annual data shows no evidence that achievements on any of the reported outcomes moved systematically closer to partnership expectations over the period of the programme.

Efficiencies

Table 5 summarises achievements against efficiency measures for 2010/11 as well as for the period 2006-2011 as a whole, relative to what partnership anticipated delivering using TDP funding. Table 5 shows that:

- Hospital bed day savings achieved in 2010/11 due to a reduction in delayed discharges exceeded expectations, but for the period 2006-11 as a whole performance was considerably below expectations.
- Hospital bed day savings achieved due to a reduction in unplanned hospital admissions were higher for both 2010/11 and for 2006-11 as a whole.
- The biggest impact has been on care home bed days purchased, where the expectation of around 317,000 saved over the period 2006-11 was considerably bettered by an actual saving of nearly 546,000 days.
- Actual nights of sleepover/wakened night care and home check visits saved were both somewhat below expectations. However, TDP funding spanned a period when these services were being substantially reduced or terminated for other reasons and this helps account for the apparent shortfall.

Table 5: TDP Generated Efficiencies 2006-10

	Partnership Expectations		Partnership Achievements	
	2010/11	2006-2011	2010/11	2006-2011
Number of hospital bed days saved due to reduction in number of delayed discharges	8,789	53,893	10,928	27,292
Number of hospital bed days saved due to reduction in number of unplanned hospital admissions.	27,013	62,343	33,049	82,106
Reduction in number of care home bed days purchased	129,125	317,224	199,587	545,943
Number of nights sleepover care saved	25,430	80,857	11,452	48,182
Number of home check visits saved	164,781	779,764	33,284	443,969

Comparing tables 4 and 5, one can also see that:

- The average number of hospital bed days saved per reduced delayed discharge was 11.
- The average number of hospital bed days saved per unplanned hospital admission avoided was 9.
- The average number of care home bed days saved per care home admission avoided was 143 (or roughly 20 weeks).

Valuing Efficiencies

To give reported 2010/11 efficiencies a money value, we require a 2010/11 price, at partnership level, for:

- A day of inpatient hospital care.
- A week of care home living.
- A night of sleepover and/or wakened night care.
- A home check visit.

The values generated by the York Health Economics Consortium (2009) for 2007/8 were taken as the starting point, which used locally reported costs for hospital inpatient treatment, care home residency, sleepover care and home check visits wherever possible, and NHS Information Services Division cost book data otherwise. Prices were then updated to 2010/11 values by adjusting for inflation, with the annual RPIX measure of inflation prepared by the Office for National Statistics used for this purpose⁷. These prices were then applied to the unit efficiency measures reported in table 5. Table 6 summarises the results.

Table 6 shows that the gross value of financial benefits arising from TDP expenditure in 2010/11 was approximately £30 million. In total the gross financial value of benefits arising as a result of TDP expenditure from the start of the programme in 2006 to end March 2011 was roughly £79 million at current prices.

Nearly half of these savings (48 percent) arose from avoidance of care home admissions. Another 44 percent derived from avoiding unnecessary hospital inpatient stays. It should be noted however that unless care home or hospital ward closures were subsequently achieved, these efficiency gains did not result in cash releasing savings.

The bulk of the remaining savings, in the form of reduced sleepover care and home check visits (7 percent of the total), is likely to have mostly benefited local authorities. Just less than 1 percent of benefits arose in the form of procurement savings⁸.

⁷ RPIX is a measure of UK inflation equivalent to all items in the Retail Price Index (RPI) excluding mortgage interest payments, and is commonly referred to as the underlying rate of inflation.

⁸ The 2010/11 procurement efficiency figure was derived by applying the PASA reported average savings rate on open market equipment purchase (14%) to the amount of TDP funding unambiguously reported as spent via PASA, and adding the actual negotiated savings in 2010/11 reported as secured by partnerships through non PASA procurement arrangements. the same approach was used to calculate procurement efficiency figures for 2008/9 and 2009/10.

Table 6: Estimated Value of TDP Funded Efficiencies

	2010/11	2006-2011
Increased speed of discharge from hospital	£4,292,840	£9,988,754
Reduced unplanned hospital admissions	£9,661,648	£24,289,642
Reduced care home admissions	£14,824,425	£37,816,787
Reduced sleepover/wakened nights care	£617,329	£2,776,270
Reduced home check visits	£344,698	£2,979,088
Procurement efficiencies	£347,172	£753,569
TOTAL	£30,088,112	£78,604,110

Partnership Perceptions on Progress

“During the course of this quarter a further training course for 30 telecare ‘champions’ has been concluded. The course was primarily filled by social work personnel with a small contingent from health services. This brings the programme of ‘champion’ training to a close currently with almost 70 workers who are engaged within the assessment teams having been provided with a telecare training input which included: assessment; risk; ethics; eligibility and referral routes; technology; innovation locally; installation; response; service user and carer views; work shadowing or smart house visits. Arrangements are now in hand to provide telecare awareness raising sessions to around 400 people. Participants will come from: community care teams; home care teams; integrated care teams; day centre staff; residential care centre staff and private care agency staff. This should ensure that all workers within these teams who have not attended ‘champion’ courses have a basic awareness. There will also be a major drive in 2010 to engage with primary care staff in relation to telecare awareness since this group has not so far expressed any interest in the telecare ‘champions’ training courses offered”.

Previous studies (York Health Economics Consortium, 2009; Newhaven Research 2009, 2010) have paid considerable attention to qualitative dimensions of change in the measurement of telecare progress. The scope of this study is more limited, being primarily concerned with updating estimates of financial value of gross benefits achieved by care partnerships by March 2011.

However, partnerships have offered some broader comments on aspects of progress when submitting quarterly monitoring forms throughout 2010/11, as well as providing examples of care solutions involving telecare that they assess to have been actually or potentially transformational to the quality of life of service users. Box 1 provides an example case study, with an appendix to the report containing several more.

The remainder of this section provides a range of comments offered by partnerships over the last year on aspects of telecare service adoption.

A number of partnerships now consider telecare to be operating locally as a mainstreamed service:

“Telecare solutions and services have been integrated and made available for all residents (subject to assessment).”

Box 1: “An Important Opportunity for Telecare”

A 49 year old man who has lived in residential accommodation for the majority of his life wants to live more independently. A suitable supported living placement has been identified and both telecare and assistive technologies are being considered from an early stage. This person has both learning and physical disabilities and exhibits a strong alignment to institutional life. A large multi disciplinary team is being assembled under the leadership of the care manager.

Technology is playing a comparatively small but significant part in the initial transition. His current call system has been replaced with a portable voice based call system (encouraging him to ask the support staff for his care needs rather than simply demanding with a buzzer); being portable it can be removed during periods that it is not needed or appropriate. Community alarm support has been provided with smoke/heat detectors to ensure that in the event of a fire this service user would be brought to the attention of the fire crew as a vulnerable person.

A bed occupancy sensor with a light (reassurance for service user) and a pager alert to staff ensure that should he fall from bed help can be quickly available. There is a low chance of this occurring, but the risk of him lying undetected on the floor is that he would be distressed and unable to raise the alarm.

Once the transition has bedded in, ongoing functional assessment will consider the need for a ‘hob angel’ type device (to enable safe cooking) and either a mobile phone or a GPS locator to support the man if he is out of his home. Deterioration in his condition and abilities over time may require introduction of other access technology, but initially an intercom operated door opener is sufficient.

This man has agreed to help write a booklet to provide a source of information (and maybe inspiration) to others considering a similar major life change.

This case highlights how much effort can be required to address a personalised assessment of need. Social care personnel are typically not experienced at project managing large multi disciplinary teams and are ever aware of the need to be efficient and careful with resources. This is a rare opportunity to face this challenge, overcome the barriers and inform future effective practice.

A report on the Telecare Integration and Mainstreaming Strategy was submitted to the Health & Social Care Partnership in August. The outcome

was that the Partnership Management Group was tasked with identifying the resources required to take telecare forward from 2011.”

“There is more integration of all services in the local partnership.”

“I have seen vast improvements in adoption by both staff and service users since I took up post over 2 years ago.”

“We have mainstreamed our Telecare Service Coordinator post.”

In addition, a number of mostly positive comments were received regarding the broader process of service restructuring:

“We have successfully moved to a shared call handling service arrangement with another Council. This will produce significant cost savings, as well as, we believe, a more effective service provision. The merger of call handling facilities will lead to significant cost efficiencies.”

“A re-ablement service was launched on 1 October. In the planning stages of this new service, extensive use of telecare interventions was included. This resulted in new training materials being developed and delivered to staff within the re-ablement service to give them the knowledge and expertise required to be able to apply telecare solutions to clients. The service will especially focus around facilitating hospital discharges.”

“Input of telecare to 15 sheltered housing complexes negating need for overnight cover.”

“Due to the use of just checking estimate potential savings of £24,956.”

“Work is ongoing to link all the 'intermediate' care services, which includes telecare, and to have a single point of contact to ensure awareness of the services available and the pathways to each. A joint project with an adjacent Council is looking at falls management in residential care homes, making use of telecare equipment. We are also part of a GPS forum looking to produce a guidance document specific to the use of GPS technology.”

“The sustainable funding and provision of telecare is still presenting some issues for the department, but there is progress in this respect anticipated by the end of May, with wide scale practitioner training to be rolled out from June onwards. However telecare is competing with a number of other initiatives also aimed at improving efficiency within Social Care, such as the Change Fund, Enablement and IRF as well as the start of the Self-Directed Support implementation. SDS implementation is being closely aligned with the telecare progress and the telecare project coordinator is a link between the two initiatives which may secure a further tenure for the project coordinator role and so ensure more achievable mainstreaming of telecare.”

“Telehealth equipment has been purchased and provided for a selection of heart failure patients. There has been a great input of project managing support and clinical nursing time. Procedures and protocols have been devised and implemented to facilitate this service. The benefits have not yet been realised at this early stage.”

“Our uptake was low last quarter, not because of a decrease in interest or eligible clients, but because we are looking at more specific application of technology for people with complex conditions (e.g. learning and physical disability, Parkinson’s etc).”

Several partnerships highlighted positive examples of innovation involving their local telecare services:

“We have used carers monies to provide a Red Cross responder service to a range of people who could not previously access telecare due to lack of response service. This has enabled a total of 18 new installs covering 19 people. One of these service users had no statutory service and from having a heat detector installed she caused 13 callouts through inappropriate use of cooker - this provided monitoring information that had not been known about prior to the telecare going in. Remedial action to keep her safe was then activated.”

“A partnership with Tayside Police was established to jointly provide and manage GPS alarms to identified victims of domestic violence; after a 6 month trial period using Skyguard devices proved successful, a formal partnership for a period of 2 years was entered into with a view to ongoing evaluation and monitoring of the deployment of the devices.”

“Membership of a group of 7 LAs looking at GPS ‘Safe Walking’ solutions, with a view to sharing experience, knowledge and resource to develop procedures and protocols surrounding the use and application of GPS devices.”

“21st Century TeleWEAR project - funded by TDP Innovation funding - is a finalist in the SSSC Care Accolades 2011.”

However, the most numerous type of comments offered by partnerships point to continuing problems and challenges for those charged with developing a local telecare service:

“Still have no permanent manager of the community alarm service, which is slowing down progress to embed telecare in respect of strategic planning. However the Council is financially committing to the ongoing project, which is very positive.”

“Due to advertising of telecare, there has been a significant rise in basic alarm referrals and installations, resulting in an over spend in general CCA budget.”

“Developments on a local basis have been impeded during this quarter due to a significant change in staff and staff vacancies.”

“Lack of a concerted management structure.”

“Increase in referrals for medication dispensers - problems with pharmacies filling the dispensers.”

“One of the very time consuming blockers to progression is in the areas where national level influence could have been brought to bear. For example with medication dispensing; the process of introducing these will involve the same professional bodies across Scotland and these recurring issues could have been addressed and structure put in place to support local deployments. This is a missed opportunity which could usefully be remedied if the telehealthcare programme is continued by JIT and SCT. We are not trying to avoid the local network and dialogues that are necessary but to provide the guidance within which the local partnership can develop a localised service. We are trying to implement significant cultural changes in complex very rigid organisations and the level of ignorance at high levels of the hierarchies is awesome.”

“A local blocker is the slowness to grasp issues surrounding the priority back office work we must do to be able to deliver a high priority service. For example the call handling server upgrade has revealed that the database structure needs a significant review and amendment. There is resistance to undertake this not inconsiderable task because it is time consuming; it is used as an excuse for things not being done in a high quality way and allows room for inconsistency. In the short term this will be addressed through an amended telecare referral pathway to provide consistency and a control until these quality areas are addressed.”

“Insufficient staff operating at ground level.”

“There are still large cultural changes needed within the public sector to enable mainstream telecare but it is progressing. Data quality from our PNC6 continues to be a concern - there is bureaucracy stopping the initial work to cleanse the database because we need to agree a method of removing 8,000 obsolete records without contravening record retention areas. There is a further discussion to attempt to progress this next week. There has been an unsettled period with staff associated with the project either being off sick, reacting to reorganisation or moving to secondments, which has made it quite difficult - to address this the Telecare Project Coordinator is having to be involved with specialist assessments, which was not envisaged and does take focus away from strategy but it is 'needs must' to keep the overall momentum going. This is not all negative because the connection between me talking about Telecare and delivering specific advice is creating a protocol for staff to consider telecare more and is steadily growing the referrals”.

"I believe the reluctance to purchase equipment to issue to service users so we can evaluate/test the equipment in operation is impeding the mainstreaming of telecare for the future. We have not had the opportunity to have equipment in stock to issue readily other than a limited core stock; we have only been purchasing one item at a time of noncore stock items after a lot of debate sometimes, which I believe is also not producing best value."

"Issues around filling of medi-boxes."

"If telehealth is to move forward there will have to be significant additional funding made available within the partnership."

"There are delays in getting front line operational staff in place, leading to inflexible service provision. This leads to disillusionment on the part of social work and health staff in the ability of telecare to deliver their expectations of it. It has also led to delays in trying out new equipment solutions due to the associated work created."

"The inability of joint services to address the telecare issue as part of a single shared assessment!"

"Slow acceptance amongst assessors of telecare solutions as part of a care package."

"Since the project commenced April 2007, we have had no permanent managerial support for the community alarm service making it difficult to embed the telecare service. A revised management structure has been drawn up but it is still being implemented and could be some months yet before people are effectively in place."

"Still insufficient awareness of telecare specifically amongst health based staff."

"Service operating with 1.5 staff members (alarm co-ordinators) allowing only just to keep the service going but preventing the required flexibility, expansion and further development. Also, continuing difficulty in getting engagement with front line health staff. I feel that further expansion and development of our service would feed interest, as positive outcomes become more visible to other professionals."

"Poor profile & lack of marketing."

"Call centre limiting number of new installations as they state they have reached capacity. Local negotiations ongoing to resolve."

Nonetheless, care partnerships are increasingly alive to the possibilities that telecare offers for changing the lives of service users:

“A Learning Disability Telecare Working Group was established to look at ways telecare can provide this client group with transformational solutions to allow them to live with greater independence.”

“The obvious benefits to disabled users and patients with chronic health issues accruing from having access to environmental control systems (ECS) technology cannot be overstated. ECS technology has been developing rapidly in recent years and has much to commend it. Not only does it enhance the dignity of each user’s individuality by providing welcome independence; it also empowers them to undertake a wide variety of daily activities with minimum, and, in many cases, no external intrusion. From an innovative individually configured switching device, users are given reassuring control of door entry and property security measures, the welcome freedom to use telephones, control lighting, operate domestic appliances and make television, audio or other life-style selections of their choice. In the event of an emergency situation arising, an ECS can be assigned to a Lifeline alarm through which assistance can easily be summoned.”

“A client of ours recently moved into residential care. She had had door exit monitors and when they were being removed following the client’s move to the care home, her son commented that in his opinion, his Mum had had an additional 3 years at home as a direct result of telecare.”

“A new service user (age 46) with extremely complex needs has been assisted to live alone in her own tenancy for the first time in her life, due to the provision of a package of telecare equipment. Prior to this she always needed to have a carer either in the same room, or be monitored by CCTV cameras on a 24 hour basis. The telecare supplied has given her the opportunity to live with a degree of privacy and independence which she had never previously experienced as carers are now only in attendance as and when required.”

“Mrs B is a sprightly 98. She has a son who lives in southern England. Mrs B was admitted to a care home early in 2010 after experiencing a number of minor falls and displaying some memory loss. Living in the care home, she missed her personal belongings and her splendid garden, which she had tended for 40 years. The telecare project manager and a senior OT met with family members to discuss alternatives. After demonstrating some of the technology in detail and working with the care home to develop an individualised support plan approval was given to a telecare based home care package. An ADLife system was installed in Mrs B’s home in December. This includes a series of fast PIRs, a bed sensor, a door exit alarm, a temperature extreme sensor and a smoke alarm. Mrs B visited her home on a daily basis in January and February 2011, followed by a permanent return in March. Data from the ADLife system is being monitored by the OT and the senior care home staff, and regular reports are provided to the family”.

“Continued success during winter period of COPD pilot in maintaining patients at home.”

“Telehealth, although as yet limited to health-conferencing clinics and home monitors for cardiac patients, has shown transformational evidence of success - patients reporting increased understanding of their illnesses, increased confidence, returning to work sooner, relying less on specialist nurses etc.”

Conclusions

In the process of monitoring telecare service developments, outcomes and efficiencies under TDP funding over the last 5 years, unavoidable limitations in the method adopted (self reporting by partnerships) have been recognised and the need for care in the interpretation of the gross financial benefits ascribed to the programme has been stressed. As one care partnership has repeatedly cautioned:

“As telecare is only part of a support package to maintain a person at home, there are cost implications to various services whereby services require to be increased to assist the person to remain within their home environment. These include home care, day care, short breaks, community health services etc...The telecare programme cannot alone be attributed to maintaining people at home. There is a requirement for these people to receive extensive home based care packages, day care, community health services etc. While the monitoring return shows efficiencies made from the reduction of hospital admission and long term care, any savings from these would have to be distributed amongst the various services that are involved. There is also the issue of fixed costs within care homes and hospitals which makes it difficult to release efficiency savings for some time as this would involve the closure of homes, hospital beds etc”.

It is important in other words to avoid ascribing spurious accuracy to financial estimates of benefit, which must also be understood to offer only a partial insight into the resource implications of telecare service provision.

On the other hand, it is equally important to avoid throwing the baby out with the bathwater; all methods for assessing programme impacts have limitations as well as strengths and, interpreted sensibly, the data generated by TDP monitoring over the period 2006-2011 offers valuable and important insights into what the Telecare Development Programme has achieved.

- For 2010/11, local partnership returns indicate that over 14,000 people were assisted by a telecare service funded in whole or in part by the Telecare Development Programme. Amongst other things, this activity was assessed to have helped avoid almost 44,000 days of hospital residence by service users. In overall terms, the value of gross benefits arising under the TDP programme for 2010/11 was approximately £30 million.

- Over the life of the programme as a whole, TDP funding has helped to fund a service for almost 44,000 people, generating gross benefits with an overall value of almost £79 million.

In the process of achieving these quantitative results, the programme has helped to mainstream telecare service provision in a number of local partnership areas, has promoted integrated working between health and social care bodies, and has supported innovation in service delivery. It has also shown that telecare can have a transformational effect on service user and carer quality of life. And while a number of challenges clearly remain facing those charged with developing telecare services further, the programme has confirmed that telecare has the potential to play an important role in continuing efforts to shift the balance of care.

Appendix: Transforming Lives: Partnership Reported Case Studies

DEMENTIA

Mr A

A short term telecare package was provided for Mr A, a dementia sufferer whose family went travelling for 3 weeks, leaving him alone in the house he shared with them. With a bed sensor and heat/smoke detector package he managed to remain in his home with only 2 check visits per week instead of 2 daily, saving 36 visits

Mrs C

Mr C started locking his doors because his wife was always leaving or trying to leave the house. She then started to climb out of windows - on one occasion climbing out of a kitchen window before dropping five feet to the ground and clambering through bushes. Mr C was afraid to sleep, and worried each time he went to the toilet. He was also not getting proper sleep during the night. A multi entry victimisation unit (£19.95) was installed (comprising six sensors, a receiver and two activation key fobs) which alerted him any time a door or window was opened and highlighted which door or window it was. This has had a tremendous impact on him and his wife, reducing stress, worries and helping to protect her dignity.

Mrs L

Mrs L is an 82 year old woman who has been walking at night. A 'Just Checking' assessment revealed higher than usual levels of nocturnal activity but could identify no pattern to predict when an event would occur. Over the winter the weather and extreme cold posed a high risk to this frail individual from both hypothermia and falling. Mrs L was disorientated each time the police spoke to her and took her home. During the 'Just Checking' assessment process, telecare options were being discussed and, given family insistence that Mrs L remain in her sheltered house, it was agreed that the 'Just Checking' system would be left in place to act as an emergency exit sensor.

A case conference was convened. The telecare implementation to date was explained and ratified by that meeting and a SeN-CiT+ was installed to provide an alert to night time activity and a text alert exit sensor direct to a family responder. Mrs L always takes her bag with her when she goes out and has regular care visits, so it was assessed that she would be a suitable user of GPS location equipment operating with a set boundary. This meant that at night time the family responder would receive an alert that she had opened the front door and if she had left the house Mrs L could be quickly located and returned safely to her home. The implementation was agreed by the Council legal advisor as being appropriate.

Our telecare coordinator met with Mrs L and explained that GPS location tracking would mean she would never be lost again, since family could quickly find her and help her return home. The agreement was that the morning care visit would include helping Mrs L to put the device on charge and the evening care visit would include

helping her to place the device in her bag. The boundary and the exit sensor are activated between 23:00 and 06:00 leaving Mrs L free to attend events within the sheltered housing complex.

The telecare has been in place 7 weeks; Mrs L was walking on average every third week. In 7 weeks Mrs L has only been outside her home for a few minutes on a handful of occasions at night and has returned indoors voluntarily. Mrs L is very curious about the devices and has managed to raise 'tamper alarms' on several occasions but we are reviewing these on a regular basis to ensure the optimum settings. Mrs L has recently been out in the early evening before she had her GPS locator in her bag and was returned home by the police. We are reviewing the protocols and have suggested that the GPS locator charging time is reduced to between the breakfast and lunchtime care visits. There is no plan to increase the boundary use because the aim is not to prevent Mrs L going out, but to ensure she may be found and returned safely if necessary. At this point the police will be asked not to stop Mrs L on sight because she is locatable and due to the frequency of care visits and family visits she will not have been out for more than an hour. This will be reviewed as the year progresses to ensure that the protocols minimise the risk from cold weather in the winter.

It has been suggested to the family that they use this time to agree between themselves how long a family response is feasible and to look at a selection of care homes to assist them with future planning. This telecare has been paid for through the care plan and not through TDP funding; this starts to make it sustainable and it can be recycled and used for another service user if Mrs L no longer needs it. The family and the care manager have both expressed satisfaction with the telecare and the family are discussing making a digital story for us to help other families understand the benefits. In conjunction with the technology provided, a range of more simple interventions have been discussed and some implemented; this is a good example of delivering a holistic approach to dementia care.

Mr R

Mr R lived with his daughter in her own home. She was his main carer for roughly 15 years. Mr R had a long standing diagnosis of Korsicoff's dementia and was latterly diagnosed with terminal cancer of the jaw and oesophagus.

Mrs D was very committed to caring for her father and to doing this for as long as possible but was unable to get an unbroken sleep due to Mr R being unsettled at night. Door contacts were put in place in 2007 to alert Mrs D that her father was trying to leave the house and they remained in place until March 2010 when Mr R no longer made attempts to go out of the front door.

As Mr R's illness worsened Mrs D's sleep was being disturbed more often; while Mr R was no longer attempting to leave the house, he was getting out of bed and moving around downstairs.

It was agreed to install door contacts to Mr R's bedroom door that connected to a vibrating pillow in Mrs D's bedroom. This system was fitted with a key switch so there was flexibility to turn it off and on as required.

As Mr R deteriorated further the internal door contacts were replaced with a bed monitor package. No longer mobile for any distance, Mr R was spending most of his time in his bedroom and suffered a couple of falls out of bed when attempting to reach his commode. The telecare package was again adjusted; the vibrating pillow pad was removed and a mobile pager added.

Mr R passed away in June 2010. Mrs D expressed her thanks. She was impressed with the range of equipment available and the ability to tailor this to meet changing needs. Mrs D felt that the systems had enabled her to get more sleep at night, which in turn ensured that she was able to continue caring for her father as she wished to. She also felt that being able to keep Mr R in familiar surroundings saved causing him upset as he did not adapt well to new ones due to his dementia.

Mr S

Mr S is 79 and has dementia. He lives alone with the support of his daughters and attends a local day centre. He started to have falls in the house but was not able to use his community alarm to call for help. His daughters were very concerned at the risk of falling and worried that he was possibly increasing this risk by getting up in the night. A move to a care home was being considered.

A telecare lifestyle monitoring pilot was suggested to Mr S and his daughters and they were keen to try it. Lifestyle monitoring involves using sensors placed around the house to detect movement – the system ‘learns’ an individual’s routine and flags up any changes that might indicate a problem. The system also records activity for authorised users to view, and Mr S’s records showed a great deal of night time activity in and out of the bathroom, bedroom and kitchen as well as around the front door.

Mr S’s daughters took copies of these reports to her father’s next consultation with his geriatrician and this information enabled the consultant to prescribe medication to reduce anxiety and give Mr S a good night’s sleep. Within a few days Mr S’s night time activity was reduced to a couple of bathroom visits. He was still going to the front door a great deal during the day – 128 occasions on one day – so the consultant, who had been planning to reduce his medication increased the dosage.

Mr X

Mr X, a service user with fairly advanced dementia, had become increasingly aggressive and confused, raising staff concerns regarding his behaviour

Mr X lives in a ‘housing with care’ (HWC) complex. Several female service users whose flats were located on the same floor as Mr X’s flat reported that ‘someone’ was knocking on their doors in the early hours of the morning. The manager and staff of the HWC complex became apprehensive as the frequency of these disturbances increased. The HWC team manager conferred with the Telecare Service regarding the use of the ‘Just Checking’ system. Discussions took place with the family who had power of attorney regarding Mr X’s finances and welfare. The implications, if it was found that Mr X was leaving the flat in the early hours of the morning and

knocking on the doors of other tenants, were fully explained to the family. Consent to install the 'Just Checking' system was gained.

The equipment generated a chart of activity incorporating *the bedroom, the front door area, the bathroom and the front door contact*. Carer activity was noted and discounted prior to undertaking analysis of the data. When analysing the remote data collected, the following movement patterns were noted. There was activity in the flat throughout the night (12:30 am – 5:00 am) for several weeks. When *front door contact* activity showed thick lines, these were compared to the times reported by other service users that their front doors had been knocked. On these occasions the times matched.

Mr X's dementia deteriorated during the period of assessment with Mr X being intercepted on several occasions by other service users when trying to leave the complex after 10:00 pm in his night clothes. Following a further risk assessment the Crisis Care service organised overnight care to ensure Mr X was safe until the allocated community care worker completed a further assessment.

EPILEPSY

Mrs M

Mrs M is 37 and is married with 2 children aged 6 and 8. Her husband works full time. Mrs M has long standing epilepsy and mental health problems. Her memory has been greatly affected due to seizures over the years.

She has care input every day to help her care for her children; this is in the form of verbal prompts and reminders, as she is physically able to carry out all tasks. Mrs M wanted to be more independent in caring for her children and to be able to go out on her own without getting lost.

Mrs M was provided with a personal digital assistant (PDA) device programmed with cognitive support software. Prompts and reminders give routine to her days and remind her to collect the children from school and carry out parenting duties without the need for carers. This has proved very effective and carers report that she is responding to and acting upon the prompts appropriately.

Her phone SIM card is to be added to the device, which will allow her to use it as a mobile phone and for it to be used for travel training and possibly as a locating device.

Mrs M is pleased with her increased independence; her self esteem has increased and she has asked if we can add in an exercise programme to the PDA to improve her fitness and help with weight loss.

Miss P

Miss P is 32. She lives alone and works full time. She has a diagnosis of epilepsy. She is an existing community alarm service user as she sometimes requires help following a seizure. Her father supports her when she has seizures but worries that

he can't always be there or know where she is; Miss P's work involves visiting people in the community, for which she uses public transport/taxis.

Her seizures occur day and night, with sufficient warning to raise an alert. The seizures alter her level of awareness and mostly the help she requires is for someone to talk to her, until she recovers and recognises where she is.

Miss P is very practical and proactive in managing her condition, and is determined to continue in her job and to keep up with leisure activities. She wanted to depend less on her father but to feel safer when out.

Miss P was provided with a locating device (a mini telephone with built in GPS and the option to set a 'geofence' (safe area)). If she goes outwith the geofence, or presses the panic/alert button, an identified person and/or response centre is alerted by text message and/or e-mail. They can then access a secure website showing her location.

Miss P now feels safer when out working; if she has a seizure and is in a confused state, she can be reassured by contact centre staff until she recovers or helped in accordance with set guidelines and protocols. She is able to continue to engage in leisure interests locally and now has the confidence to visit family and friends further afield. Her father has been provided with greater reassurance and he and Miss P have been able to achieve a more normal father/daughter relationship.

Miss T

Miss T, a 19 year old woman with epilepsy, was sleeping in her mum's bedroom. This caused a lot of anxiety and stress within the family home; her younger sister was jealous and her father had to sleep on the sofa in the living room. Mum was not getting a proper night's sleep as she was listening out for her daughter having a seizure. After an assessment, an epilepsy sensor was installed (£170.00) in Miss T's own bed that activates a pager in her parent's room. She now sleeps in her own room, her sister is happy about this, dad gets to sleep in his bed and Mum gets a good night's sleep.

Mrs Y

A student social worker asked for advice in a complex epilepsy case. Mrs Y has very frequent seizures, normally managed by her family. Her husband needed to attend hospital for four sessions of chemotherapy and there was family anxiety that we would insist on his wife moving to a care home in the short term because of other pressures on the other family carers. The situation needed sensitive handling because anxiety was exacerbating things and this family had never asked for social service help before. We successfully introduced an Emfit sensor in the bed to avoid a need for waking night staff and reduce anxiety for the family. The student social worker completed the installation and trained the family and care staff in what they needed to do. The family of Mrs Y was able to continue their lives as normally as possible and having gained confidence in us and in telecare we anticipate being able to suggest other equipment that might support them in their role as carers in future.

FALLS

Mr E

Mr E is a 90 year old man who had been residing in a Council nursing home. He was very unsettled and was asking to return home frequently during family visits.

Mr E experienced a number of falls whilst in the nursing home. He has mobility problems but requires the toilet frequently during the night. As Mr E would be living alone it was agreed to try a bed exit monitor as a way of notifying his family if he did not return to bed after 20 minutes. His son and daughter live locally and on his return home it was agreed that they would respond overnight to the bed exit monitor and call out warden response if required, whilst mobile wardens would respond to any calls received from a pendant.

The bed exit monitor was reviewed shortly after it was installed. A concern raised was that the bed exit monitor appeared to be going off but when family checked on Mr E he was in bed asleep. After discussion it became apparent that Mr E was rolling over and off the bed exit monitor onto the other side of his bed, although this had not been normal behaviour for him previously.

A second bed exit monitor mat was purchased and installed and this has reduced the number of false activations and now the mobile warden response service answers any activation to allow the family respite.

Mr E is much more settled and happy at home than he had been in the nursing home and his family are reassured that there is an appropriate response to any falls he experiences.

Mrs V

Mrs V is 56. She was referred due to falls and neurological problems that cause her severe problems with pain and balance. She had community alarm equipment in her home where she had to press her pendant for assistance if she had a fall; at time of referral she had called for assistance on 2 occasions.

Mrs V said that she had recently woken up and found herself lying on the floor thinking she was in her bed but when fully awake it became apparent to her that she must have suffered a black out and had been on the floor for over 5 hours before coming to. She said she couldn't go on like this as she was terrified of collapsing and having a severe injury or dying and nobody finding her for days.

Mrs V confided that she has been feeling very low due to her illness and had been prescribed anti depressants by her GP and that she had tried to take her own life by swallowing excessive amounts of medication.

She was asked if she would be willing to try a new automatic fall detector. It was explained that this would automatically send a call to the control room if she were to collapse on the floor. Mrs V was a bit reluctant as she had tried a different fall

detector in the past and couldn't cope with the high amount of false alarm calls it caused, but agreed to give it a try.

The new fall detector has proved a success. On a follow up visit Mrs V said it had been great and she had worn it to bed and felt it was much better than the previous one she had used.

During the last visit to check on the continued suitability of the equipment, Mrs V threw her arms around the care co-ordinator and told her that she had changed her life and she would never be able to thank her enough. She said that due to having the security and peace of mind that if anything were to happen to her she would get help, she no longer felt alone anymore and that her mood had lifted. Her GP, family and friends have all noticed a great change in her. Mrs V said she was now in discussions with her GP to begin reducing her anti depressant medication and was getting out more with the help of her sister who visits regularly and that this was all down to having more peace of mind.

LEARNING DISABILITY

Mr D

D, who has learning disability, had his 24 hour care package reduced by 5 hours daily with the simple installation of a smoke detector and a community alarm. Subsequent installation of a door sensor allowed this to be reduced to 9 hours a day. Mr D has capacity and appears to have been over-protected by a care package which was badly in need of review.

MOTOR NEURONE DISEASE

Mrs G

Mrs G is a 53 year old lady with Motor Neurone Disease. She lives with her husband and has 2 daughters (not living at home) who are both deaf. Since being diagnosed her ability to communicate with her daughters via text or e-mail had diminished due to decreasing hand function. Mrs G has now been supplied with an environmental control system, which gives her the ability to control her door entry, lights and heating. But most importantly we have given her a means of controlling her computer and therefore of allowing her to maintain 2 way contact with her daughters.

PARKINSON'S DISEASE

Mr K

Mr K is 53 years old and lives with his son and daughter who are both young adults.

Mr K was diagnosed with Parkinson's disease in 1994 and now has marked dyskinesia, which can give impaired control over muscle movement, resulting in

spasmodic involuntary movements and potential falls. His medication was not always being taken at the correct times, resulting in poor control of his condition.

Mr K was admitted to hospital after becoming unwell with a urinary tract infection (UTI). On admission he was confused, disorientated and physically frail. He received treatment for the UTI, had extensive physiotherapy and a medication review, and was assessed for a care package to allow him to return home.

Prior to admission his sister filled a dosette box with his medication and his family prompted him to take it. At the discharge planning consultation, discussion took place about the difficulty he has in remembering to take his medication as well as the problems in using the dosette box due to the tremor in his hands.

On the advice of a telecare outreach worker he was provided with a telecare package comprised of a lifeline unit, pendant, smoke detector and a Pivotell medication dispenser with a tipper. He was given the opportunity to familiarise himself with the equipment in hospital and this proved to be successful.

Mr K returned home with a care package after 3 months in hospital. The amount of support required from his family has reduced and they are no longer required to prompt him to take his medication. His sister still continues to fill the dispenser, but is more confident that he will be able to manage. Mr K also feels that he is more independent and after being home for 4 weeks his care package was reduced by 1 visit a day.

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