Telecare and assistive technologies

Summary

There are 10 million over 65s in the United Kingdom, and 1.5million of those are over 85. The number of people aged 80 or older is expected to double by mid-2037. According to recent research, almost three quarters of elderly people can be expected to be in need of social care. This can range from relatively simple support, such as help with preparing meals, to full-time care in a residential home. At the same time, the number of younger adults with a physical disability is also set to rise, and medical advances mean many people with disabilities are living longer. This will significantly increase the demand on health and care services offered by local authorities.

Councils have been applying telecare, tele-health, and assistive technologies for at least two decades. This technology helps support elderly and physically disabled residents to continue living independently in their own homes while receiving the care they need.

Telecare refers to the use of sensors and alarms. They are used to signal when someone is in distress and needs assistance, either automatically or when triggered by the user. Personal alarms are supplied as pendants, wrist straps, or belt units and linked via a base unit to a telephone line and a help centre. This technology has now been supplemented by a range of sensors and alarms, some linked by mobile phone, including activity, door, and bed or chair occupancy sensors, detectors of falls or epileptic seizures, medication management systems, and detectors of household hazards including fire, smoke, carbon monoxide, domestic gas, floods etc.

Telehealth refers to the use of electronic sensors or equipment to monitor vital health signs remotely, so that trained monitors can assess health in real time without being present. These monitor pulse, blood pressure, and glucose, and include scales for daily weighing.

Assistive living technology refers to equipment and systems that help people with disabilities with their functional capabilities. This can range from wheelchairs and chairlifts to hearing aids, walking frames and simpler approaches such as elastic bands used to increase grip on jars or mugs. The term includes adaptive technology, equipment specifically designed for the purpose, and rehabilitative technology, specifically designed to help rebuild capabilities.

With councils required to make further budget efficiencies, continuing to provide good value social care has become a key challenge. The goals of maximising independence and the ability to function as part of the community are continue to be valued in their own right. Therefore telecare, telehealth, and assistive technologies have an increasing important role to play.

Blackburn with Darwen

Summary

In 2008, Blackburn with Darwen first introduced telecare and assistive living technology (ALT) to help improve outcomes for local people and deal with the challenges of changing and growing needs. In addition the council required considerable budget efficiencies to be made from the social care budget.

The objective:
The objective was to provide services which improved outcomes for citizens whilst also reducing costs.

The number of people aged 85 years or older is set to increase by 43 per cent between 2008 and 2028, and the number of people with dementia was projected to increase by 30 per cent to 1,600 people by 2025. Blackburn with Darwen also supports above average numbers of people with long term conditions and mental health issues. Both these groups are high users of health and social care services.

In 2010, the council examined telecare delivery models in other areas of the country and set a number of objectives for supporting independent living at home, as follows:
- to increase the number of telecare users from 60 to 1,800 (1,000 was achieved in the first 18 months)
- to examine joint working / joint commissioning of assistive living technology with health services locally
- to reduce or delay residential care admissions
- to incorporate telecare into the re-ablement process to reduce readmission to hospital
- to provide support to carers, improving their health and well being
- create a universally accessible service

Their approach:

During 2010/11, further research was undertaken into the potential benefits of assistive living technology for the citizens of Blackburn with Darwen.

Assistive living technology is proven, both locally and nationally, to improve outcomes and reduce costs to social care. As part of a joint council and Care Trust Plus strategic response to the challenges of the ageing population and opportunities of assistive living technology, a business case was developed, which highlighted the benefits of a large scale joint development with health partners in Blackburn with Darwen, and how they planned to:

- tackle rising demand for health and social care services in future years
- improve health and well-being in the Borough and better manage known future demand pressures
- develop joined up preventative services in accordance with the 2010-2015 Comprehensive Spending Review, Health White Paper and Putting People First / Think Local Act Personal social care transformation program.

Following the business case, a procurement exercise was undertaken by the then Care Trust Plus, which resulting in a two year contract with Tunstall Ltd from 1 April 2012. The service included the

installation and maintenance of equipment, and call monitoring and response handling. The contract was hosted by the council, and jointly funded by both health and social care.

Use of telecare increased rapidly and the benefits were soon realised. At this time the telecare element of the contract was provided only to those people that met fair access to care services criteria, and telehealth was provided to people with long term conditions via Community Matrons.

After ten months, an independent review of the contract resulted in the development of a full programme to extend the use of assistive living technology over the next two years. This included marketing and communications, workforce development, stakeholder engagement, service user and carer engagement, financial planning, outcomes for users, efficiency, and an approach to introducing new technologies.

The programme was overseen by a steering group comprising a wide range of stakeholders (including the fire service, care commissioning group, social care, Blackburn College, the third and voluntary sectors, the council's housing department, Lancashire Care, the local acute trust, and technology providers), and took a service design approach. The purpose of service design methodologies is to design according to the needs of the customer or participants, so that the service is user-friendly, competitive and relevant to the customers and their needs.

The programme developed a dedicated 'brand': Safe and Well. It tested different technologies across different client groups and needs, and worked to raise the profile of assistive living technology internally and externally. From 1 April 2012, assistive living technology has been delivered in Blackburn with Darwen via the Safe and Well Programme.

Pilots undertaken included:

- A group of 33 clients with learning disabilities who were on very high dependency packages of care. Coaching and mentoring was given to the learning disability team which enabled them to become more aware of technology and the benefits it could have in relation to their clients, and focus on assistive living technology in reviews, including using 'just checking', an online tool, to assist with assessing need. This work has enabled greater independence, allowed providers to make better use of resources. In some cases packages of care have gradually been decreased in response to the changing needs of particular clients, resulting in efficiency savings for the department.
- Another part of the same pilot has been to work with HB Villages, a provider of bespoke property for supported living, to look at how assistive living technology could benefit users moving into two new blocks of individual apartments for adults with physical and sensory impairment and/or learning disabilities. State of the art wiring was installed so that almost any relevant technology could be installed into an apartment in any location, from a simple telecare alarm unit to apps (via iPad or TV) to work the lighting system, close blinds, or auto door opening. This development and the level of technology will be one of the first of its kind in the UK. The main benefit is that appropriate technology solutions to support each individual can be identified and applied, so that the solutions can be truly tailored to each individuals needs rather than putting in 'blanket equipment' that some users may never need.
- A second pilot introduced assistive living technology into several residential and nursing homes. One of the greatest success stories within this pilot has been the use of a piece of equipment called BAM Labs Touchless Health Monitoring. The touch free sensors or mattress detect trends in heart rate, breathing, motion, and detect presence or absence.

The product is also developing the option to include enuresis (sensing of urination), epilepsy, and also sensors in wheelchair mats and communal chair mats.

- A third pilot looked at the benefits that assistive living technology can bring to early intervention and prevention. In conjunction with the public health team and the council's Your Support Your Choice service, several independent third or voluntary sector providers were engaged (Age UK Blackburn with Darwen, Telemagenta, Twin Valleys, and Care Networks). The aim was to identify clients who did not meet eligibility criteria for the mainstream service, and see if there was some way in which assistive living technology could benefit them. This could also prevent needs from escalating, and prevent hospital admissions and falls, slow down memory loss and confusion, or just give peace of mind assistive living technology. To date, 30 people have been offered assistive living technology as a result of the pilot who otherwise would probably have not received this equipment. Benefits are being evaluated on a long-term basis.

The outcome:

Social care clients receiving assistive living technologies have increase from 60 to 1,900, with a range of appropriate client groups using the technology. Those not fully eligible for social care are also receiving assistive living technology where appropriate. Branding and engagement has worked well, with partners and stakeholders from politicians and senior managers to frontline staff having a high level of awareness of appropriate use of the technology to obtain benefits. Provision of the technology has increased independence, safety, and reassurance for service users as well as cashable and non-cashable savings for the council, and has supported the redesign of other social care services, and renegotiation of existing contracts.

The benefits:

A preliminary evaluation, undertaken by Care Services Efficiency Delivery, between 2008 and 2010 of 114 users, evidenced reductions in escalations of care. For 50 people who received only a telecare service:

- One was able to stop using 24 hour care
- One was able to no longer use day care
- 29 no longer required home care
- Two no longer needed nursing care
- Two no longer needed supported living assistance
- Thirteen no longer required residential care

People benefited from the service by being supported to live independently at home for longer; there was improved personalisation of service, with greater choice and control for customers, reduced hospital and residential care admissions, and improved confidence and reassurance to both customers and carers. This helped individuals and families become less dependent on paid support and enhanced quality of life for many residents.

The council and its partners have benefited as a result of improved customer insight and an increased understanding of the preventative care opportunities available. This has resulted in packages of care that are better tailored for the customer, improved commissioning capabilities, and improved cross partnership working to deliver redesigned and improved reablement services.

Savings generated

2008-2012 costs efficiencies – £2.2 million

An evaluation of the assistive living technology programme between 2008 and 20012 showed a net reduction of £2.2 million, (£300,000 above the target set in 2008). This was made up of £1.4 million of savings from the combined telecare and reablement service, with a further £800,000 saved as a result of the telecare services only.

2013 - 2014 additional cost efficiencies – approximately £1.2 million

An evaluation of preventative/ early intervention approaches in conjunction with assistive living technology services shows a reduction of approximately £1.2 million direct budget costs and this in the face of growing demand.

Telecare uptake continues to increase, rising to just over 1,900 recipients in 2013/14 with additional recipients expected in 2014/15 given the current programme of initiatives detailed in this paper.

In addition, Blackburn with Darwen would have expected an increase in the number of commissioned social care packages in year (60 people) given projected demographic however, there has been a slight reduction in 2013/14. This reduction is at least in part due to Blackburn with Darwen's focus on preventative services, particularly reablement and assistive living technology solutions.

Next steps:

The council will undertake a larger piece of work in relation to Prevention Plus to see what other benefits there could be. This is likely to include training and supporting community coordinators to understand the use and benefits of assistive living technology and providing 'Avon' style assistive living technology kits that staff can take out to customers or events, demonstrations, 'pop up shops' and literature that is relevant and eye catching to all ages and groups of people explaining clearly what assistive living technology is and the benefits it can bring. This includes a focus on promoting the technology to those who don't meet social care eligibility criteria, as the council now has evidence of the benefits of early, appropriate use of the technology in reducing falls, admissions, and general prevention of deterioration. It also promotes greater independence, enables people to do more as well as promote self-care and compliments other council initiative such as the new wellbeing hub.

In addition, Blackburn with Darwen wants to invest much more in promoting assistive living technology to people that do not meet fair access to care services criteria. There are huge benefits in getting Assistant Living Technology in place early and employing assistive living technology in reducing falls and admissions to residential care/hospital.

The council also plans to revisit the aids, adaptations, and equipment service and the direct links to assistive living technology, and to continue a rolling programme of evaluations, to feed in to the input of a new Safe and Well Strategy next year, and the procurement of a new Safe and Well Service to start in 2015/16. This is likely to be very different from the current service, with assistive living technology playing an even greater role in all aspects of health and social care.

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London Borough of Hillingdon

Summary

Hillingdon is London's second largest borough; the number of people over 80 is 10,625, and this is projected to increase by 13 per cent over the next five years.

As these numbers increase, so will the demand on adult social care services. The way that Hillingdon provide these services has evolved to ensure older residents have the same level of choice, control and freedom in their daily lives as any other person.

The council's older residents say they want to stay healthy and active, contribute to the community and remain independent in their own homes for as long as possible. To support their aspirations, Hillingdon has created a fundamental shift in service provision away from institutionalised care, towards home-based support, risk prevention and early intervention.

The councils' adult social care team, working in partnership with the local NHS and Tunstall, is providing a model of care incorporating assistive living technology and reablement services to reduce reliance on residential care. This transformational approach seeks to deliver an improved quality-of-life, helping more people to live independently in their own homes and generates financial savings.

Objectives

For older people, independence is about exercising choice and control and the council wants to empower them to be able to live independently and safely in their own home for longer. Telecare plays an important role in helping them achieve this.

The councils' aim is to reduce/delay entry into residential care, prevent people needing ongoing care and support confidence during the reablement process, as well as achieve cost savings.

Hillingdon set out to ensure that resources are used in the most effective way and that residents are able to remain in their own homes for as long as possible, enjoying a better quality of life.

Approach

Hillingdon has offered a community alarm service to residents for some years to support people to live independently in their own homes by providing reassurance that help is available in an emergency.

The equipment ranges from basic alarms, which can be activated by pressing a button, to more sophisticated devices that can sense if there is a personal risk for example when someone falls, or an environmental risk for example flooding, it can also help with memory by prompting residents to take their medication.

TeleCareLine is staffed 24 hours a day, 365 days a year, by experienced operators, who in the event of an emergency, will call a designated responder or where appropriate, the emergency services to check and ensure the wellbeing of the service user.

In April 2014, the council took the decision to reduce the age at which Telecare is offered free of charge from 85 to 80 to enable more residents and their families to benefit from the peace of mind that a 24/7 alarm system provides.

Similar telecare packages are offered free for the first six weeks as part of a re-ablement service and for those individuals who meet fair access to care criteria, subject to a financial assessment. In addition, all residents of the borough may choose to self-fund.

Hillingdon's TeleCareLine service provides varying levels of support, with eligible residents provided with a Lifeline Connect+ personal alarm, a MyAmie+ pendant, bogus caller alarm and a smoke detector as standard, and additional sensors provided based on the residents' individual needs.

Outcomes

- More than 3,379 TeleCareLine installations have been completed since 1 April 2011. Of these installations, more than 1,663 have been self-referrals from Hillingdon residents as a result of the council's efforts to raise awareness of the telecare service at user level.

- From January 2013 to February 2014 the percentage of residents not requiring further services after the initial six week reablement programme was 46.44 per cent, and the number of residents who only required a reduced service after their reablement period was 16.83 per cent.

- Long-term residential/nursing care placements were reduced from 8.08 per week in 2010 to 2.13 per week by the end of 2013/14.

Customer benefits

Case study: Fire prevention

Claire is 88 years old, and has mild confusion and short term memory issues. She has the TeleCareLine standard package installed and was recently admitted to hospital.

While Claire was in hospital her daughter visited the property with some shopping and left some bags on the electric hob, without noticing that one of the rings had been left turned on.

Claire's daughter left the property, but the smoke detector subsequently raised the alarm at the monitoring centre. The monitoring officer was able to instantly view Claire's notes on screen and see she was in hospital and so contacted Claire's daughter who was then able to quickly return to the property, and remove the smouldering bags from the cooker before more serious consequences occurred.

Without a monitored smoke alarm as part of the TeleCareLine service there was likely to have been serious damage to Claire's property. However, because of telecare, Claire was able to return home and recuperate in familiar surroundings, with the reassurance that the system would continue to raise an alert at the monitoring centre if it detected a potential problem.

For more information, please contact - Tony Zaman tzaman@hillingdon.gov.uk

Council benefits

The telecare and reablement service achieved the financial savings target of £4,957,000 by March 2014.

"Technology like TeleCareLine can play a vital role in helping care for an ageing population and that's why in Hillingdon are offering it to those aged over 80 for free. By enabling residents to stay in their own homes we can increase people's independence and reduce dependency on traditional social care services such as residential or nursing care, which can in turn result in significant savings for the council."

Tony Zaman, Director for Adult Social Care