Learning Disabilities
Connected Healthcare Solutions

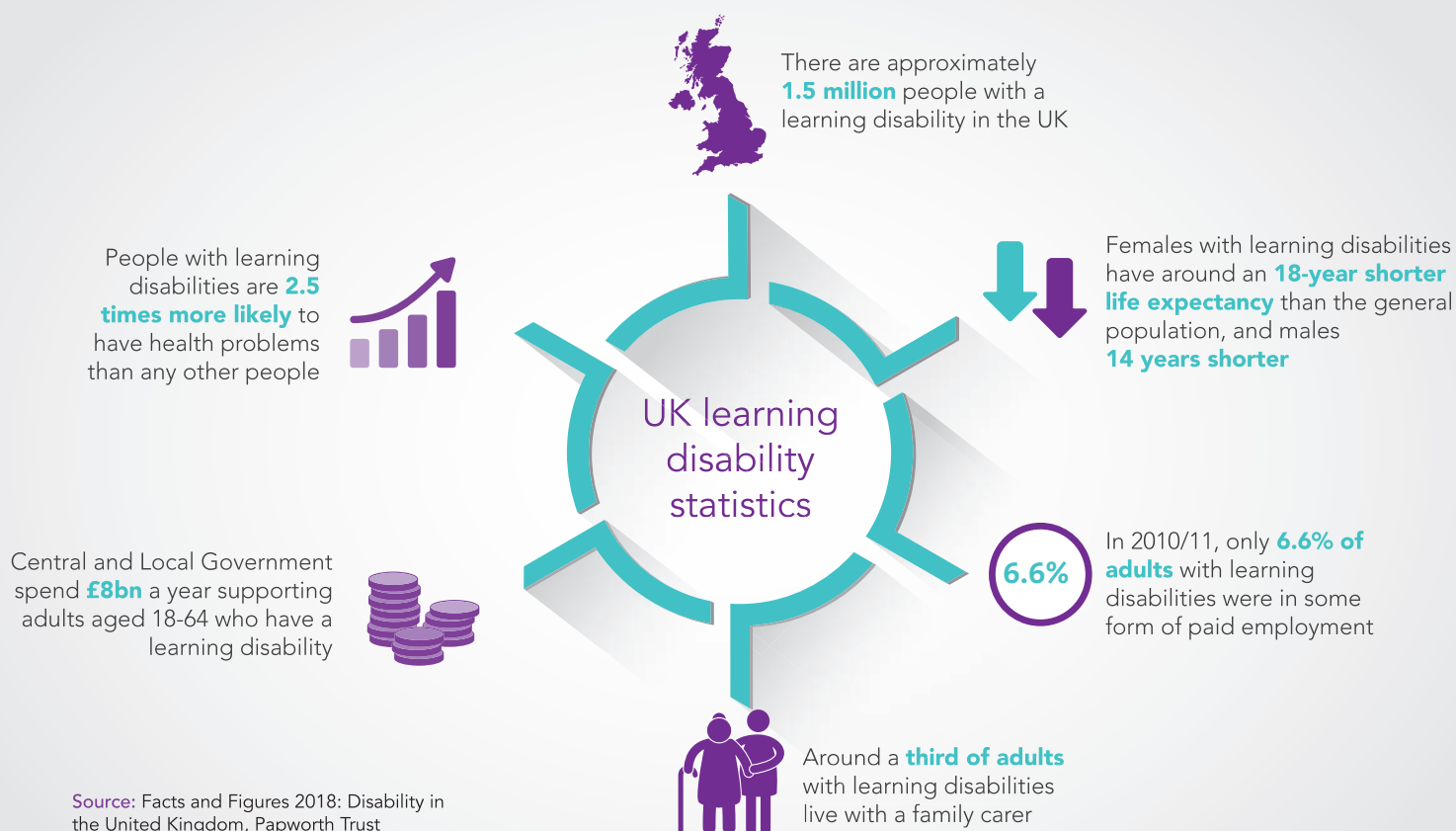Key information for health, housing and social care professionals and carers

Introduction

Connected Healthcare technology such as telecare, assistive technology and telehealth has a key role to play in supporting people with learning disabilities in a way that promotes independence as well as safeguarding them. Technology can make a difference to people with all kinds of learning disabilities, whether their difficulties are relatively mild or more profound and if they are living in formal care settings or more independently in the community.

From managing risks such as fires or falling, to aiding communication and helping to deliver greater privacy or dignity, technology can enable people to have more control over the way they live their lives. As well as enhancing more traditional care solutions by managing risk in the home environment, technology can also enable someone to be 'connected' with their wider community, friends and family and enjoy the wellbeing derived from activities such as going to the shops, social events, work and meeting friends and family.

As more is understood about learning disabilities it is clear that enabling technology has the potential to make a significant and positive difference to the lives of people with learning disabilities, and the ability of our health, housing and social care systems to manage their needs effectively. This document has been designed to demonstrate how the range of Connected Healthcare solutions provided by Tunstall can enable people with a learning disability to live with greater independence, choice and control, both at home and in the community.

There are approximately **1.5 million** people with a learning disability in the UK

People with learning disabilities are **2.5 times more likely** to have health problems than any other people

Females with learning disabilities have around an **18-year shorter life expectancy** than the general population, and males **14 years shorter**

UK learning disability statistics

Central and Local Government spend **£8bn** a year supporting adults aged 18-64 who have a learning disability

6.6% In 2010/11, only **6.6% of adults** with learning disabilities were in some form of paid employment

Around a **third of adults** with learning disabilities live with a family carer

Source: Facts and Figures 2018: Disability in the United Kingdom, Papworth Trust
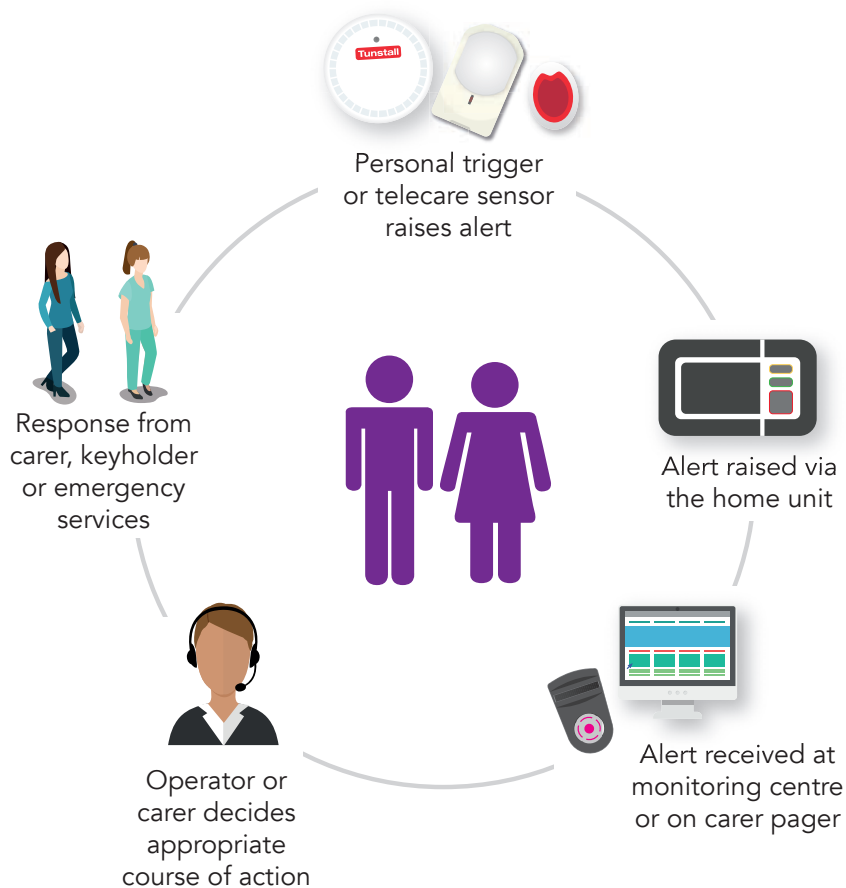
What is Connected Care?

Tunstall's Connected Care solutions use advanced technology to support a wide range of people, including older people, people at risk of falls, people with limited mobility, people with physical disabilities and sensory impairments, people with dementia, people with epilepsy and people with learning disabilities.

Connected Care services combine a range of unobtrusive alarms and sensors which detect events such as smoke, gas or a person falling, with a 24-hour response centre. Should a sensor be activated, either automatically or by the user, an alert will be immediately received at the monitoring centre where the operator will contact family members, response teams or the emergency services to provide help. This rapid response minimises the consequences of events and provides reassurance to users and their families that risks are being managed effectively. Alerts can also be received by carers on a handset, in individual homes or grouped living environments.

Connected Care provides efficient, 24-hour support, giving a platform for the right amount of care to be delivered at the right time, and connects stakeholders to enable integrated care. Systems can also be configured to monitor changes in daily activity over time, aiding effective care planning and highlighting any deterioration in wellbeing at an early stage.

The latest evolution of Tunstall Connected Care is underpinned by the digital technology. Our Cognitive Care model will use data-driven insights to not just react to events, but predict and even prevent them, transforming the way health and social care is delivered.

Personal trigger or telecare sensor raises alert

Response from carer, keyholder or emergency services

Alert raised via the home unit

Operator or carer decides appropriate course of action

Alert received at monitoring centre or on carer pager

Examples of technology in use and further details on the types of products developed by Tunstall are detailed in the following pages of this brochure.

Service transformation

Connected Healthcare services and solutions such as telecare and telehealth can enable more people to be supported at home, helping to delay or avoid the need for more costly interventions. However, to be most effective, such technologies need to be embedded into provision, and form part of mainstream service delivery.

Tunstall has a range of support services which can be combined to provide a structure for transforming healthcare provision, helping to integrate support and reduce future costs by shifting the focus to prevention and self-care using technology as an enabler. We work in collaboration with customers to understand their particular challenges and develop a strategy to address them, using Connected Healthcare solutions to underpin system redesign and culture change.

The approach is modular, meaning customers can choose support with specific areas or to partner with Tunstall for the whole service.

With years of experience working across the health, housing and social care landscape around the world, Tunstall is uniquely placed to help its customers redesign their services, maximising the potential of Connected Care and Connected Health to support the delivery of integrated, efficient care and support which improves outcomes for users. This experience, along with our significant ongoing investment in Innovation and Development, ensures that we have the expertise and resources to help our customers navigate the digital evolution, and provide a futureproof infrastructure to meet market challenges and service user needs.

Case study

Supporting older carers

The situation

Janet is an older carer looking after her adult son who has a learning disability. Janet fell and her son left her lying for 12 hours before he got help and she needed several weeks in hospital to recover. Janet's son was also left alone at home for two days before his care manager was informed and was found trying to grill food wrapped in cellophane. Janet needed a way to get help quickly should she fall or become unwell and put an emergency care plan in place for her son.

The solution

Janet and her son have been given a Lifeline home unit and MyAmie pendant. Pressing the red button on the Lifeline home unit or on the bodily-worn pendant enables Janet to get help at the touch of button 24 hours a day if she feels unwell. Operators at the monitoring centre can then get the relevant help for both Janet and her son, and inform the appropriate contacts of the situation.

The outcome

The solution has given Janet great reassurance that she will be able to easily ask for help should she fall again or experience any other difficulty. She is also confident that her son will have support should she be away from home as a result of an emergency. Janet now feels able to continue caring for her son at home.

Case study

Reducing waking night provision

The situation

Waking night provision at several registered and group living services in Sheffield had increased over time due to various factors, and in some cases three waking staff were being deployed to support 12 people. The third member of staff was sometimes deployed as a floating support who could be called upon should the need arise. This level of support was costly and unnecessary.

The solution

A pilot project was introduced with Dimensions and Tunstall working together to assess the individual needs of six services and identify solutions to meet these needs. Staff, families and the people being supported were consulted to ensure they understood the reasons for change and to address any concerns.

One of the major reasons for waking night staff was to monitor the wellbeing of people with epilepsy, undertaking regular routine checks during the night in case of seizures. Using epilepsy sensors provides continuous monitoring throughout the night. If a seizure is detected sleep-in staff will be alerted immediately by a pager which links to a small device under the pillow which vibrates.

The outcome

Telecare has greatly improved the safety of the people Dimensions supports by providing constant monitoring. Removing the need for intrusive physical checks has increased privacy and improved the quality of sleep that people experience, and this has had a positive impact on their wellbeing and happiness. The project has also generated significant savings. Overall investment in technology across all six services was approximately £33,000. Reconfiguring services to withdraw five waking nights has reduced costs by £3,800 per week.

Case study

Using movement sensors to safeguard and enable privacy

The situation

Emma lives at Hatton Grove, a registered residential care home supporting up to 20 adults with a range of learning and physical disabilities with 24 hour care and support. Emma is 69, and has severe learning disabilities, along with Crohn's disease and has periods of hyper-mania. She walks and spins in circles constantly and can be awake for 24-36 hours at a time. When she does go to bed, she may get up three or four times during the night. Staff were checking on Emma regularly when she was asleep to ensure her safety, but this often woke her and was having a detrimental effect on her mental health.

The solution

Because Emma often sleeps curled up in different parts of her bed, a bed occupancy sensor was not appropriate.

Instead a PIR has been fitted at bed level in Emma's room and configured to alert staff if she leaves her bed. An override switch has been fitted to enable the PIR to be turned on and off during the hours the telecare system is usually operational (9pm to 6am) to accommodate Emma's irregular sleeping patterns. Should Emma leave her bed during this time period, staff can switch off the PIR and switch it on again when she returns to bed.

The outcome

Emma is no longer woken up by care staff checking on her wellbeing whilst she is asleep, and seems more content. She enjoys company and because telecare has freed staff time, Emma is able to enjoy more one-to-one social interaction, improving her quality of life.

Jenna Cowling, Registered Care Manager at Hatton Grove said,

> " To me, supporting the people that live here is as much about encouraging their passions and developing their abilities as it is about ensuring their personal care needs are met. Telecare has been fantastic for us. Not only does it help to manage risk and preserve dignity, it also frees up staff, enabling them to spend more personal time with the people they work with. "

Solutions

Lifeline Smart Hub

The Lifeline Smart Hub is Tunstall's first IP home unit, and represents a step change in the way telecare services can be delivered, making them faster, more efficient and more insightful. The Smart Hub retains the reliability of our analogue Lifeline units, but removes the restrictions of relying on an analogue connection and brings the many benefits of IP, such as remote management of units, Activities of Daily Living monitoring and data gathering and intelligence leading to better quality services.

Lifeline Vi and MyAmie

The Lifeline Vi home unit receives alerts from telecare sensors placed around the home and automatically raises an alarm with a carer or monitoring centre. The MyAmie pendant can be worn on the wrist or around the neck and allows the user to call for help simply by pressing the red button.

CareAssist

CareAssist is an extremely easy to use, portable device that provides onsite carers with a means to receive instant alerts from a range of telecare sensors. This means that carers can be quickly made aware of any incidents allowing them to respond, but removes the need for them to continually observe the person they care for.

iVi intelligent pendant

The iVi intelligent pendant is a small, lightweight device which allows the wearer to press a help button to generate an alarm call, and will also automatically generate a call for assistance if it detects a fall.*

Vibby

The Vibby is a sleek, contemporary and technologically advanced fall detector which can be worn on the wrist. The Vibby will automatically raise an alert if it senses the user has fallen, and also enables the wearer to easily call for help manually.*

Bogus caller/panic button

Fitted near the door, the discreet bogus caller button can be used to call for assistance at a 24 hour monitoring centre if a stranger requests entry into the home. Operators can advise the user, and all calls are recorded and can provide evidence admissible in court.

Smoke alarm

Tunstall smoke alarms provide increased reassurance by raising an alarm call at the monitoring centre while also activating a local audible alarm, if they detect smoke.

Carbon monoxide alarm

The carbon monoxide alarm provides an immediate alert when dangerous CO emissions have been detected due to a blocked flue or fault in a fuel burning appliance.

Solutions

Natural gas detector

The natural gas detector raises an alarm call the moment the leakage of gas is detected, allowing the appropriate corrective action to be taken. It is supplied complete with standard UK mains plug and a preconfigured universal sensor, and doesn't need to be installed by a qualified electrician.

Heat alarm

The heat alarm provides additional protection against the risk of fires in rooms where smoke alarms are unsuitable e.g. kitchen.

Flood detector

The flood detector will raise an alarm if sinks or baths overflow, or if a washing machine door is opened mid-cycle, protecting both people and property.

Motion sensor

Our motion sensor can be used to detect both movement (such as someone entering an area where they may fall) and lack of movement (for example, as a result of a fall). It can be fitted flat to the wall or across a corner, and the battery can be replaced without removing the sensor from the wall. Minimum detector beam of 5 x 5m.

Property exit sensor (virtual)

The virtual property exit sensor combines a Fast PIR with a door usage sensor (universal sensor) to create a solution which can monitor a door, generating an alarm if a client leaves their home (during the monitoring period) and does not return within a set time. It can also detect if a main exit door has been left open.

Bed occupancy sensor

This specially designed pressure pad and provides an early warning by alerting that the user has left their bed and not returned within a pre-set time period. The sensor can also be programmed to switch on lights, helping people find their way to and from bed easily.

Enuresis sensor

Placed between the mattress and sheet, this sensor provides immediate warning on detection of moisture, allowing effective action to be taken. The sensor eliminates the need for carers to make physical checks during the night, promoting dignity and independence.

Medication dispenser

Automatically provides access to medication over a 28 day period, providing audio and visual alerts to the user and/or their carer each time medication should be taken, and raising an alert if the user fails to access their medicines.

Solutions

Epilepsy sensors

Epilepsy sensors are used to monitor people with epilepsy while they sleep. Patented sensor technology detects a person's movement in bed and is able to differentiate normal movements from epileptic seizures.

Flashing beacon

Tunstall offers a range of Bellman & Symfon devices which alert people with hearing and visual impairments to events such as the phone or doorbell ringing, or to telecare sensors in the home detecting an incident such as a fire or flood. The flashing beacon notifies the user with flashing lights and illuminated symbols when a transmitter is activated.

Bed shaker

The bed shaker is a Bellman & Symfon device which works as part of a telecare system to wake users in the event of a transmitter being activated. It can be used to alert people with learning disabilities if, for example, the smoke detector is activated during the night, or to wake carers if, for example, a bed occupancy sensor in another room indicates the person they are caring for has left their bed.

Connected health

Tunstall offers a range of solutions to enable people, with assistance if required, to monitor their health condition at home. Vital signs and symptoms can be remotely monitored, and readings outside of parameters set for the patient will raise an alert with a clinician, enabling early intervention and avoiding further deterioration in health and the need for more complex care. Digital health monitoring can be particularly helpful for people with learning disabilities who may not be able to communicate their symptoms.

Environmental controls

Tunstall systems can also be configured to operate with a range of third party devices, such as sensors to control curtains, heating, lighting and windows, access control, aids to support bathing and toileting, cognition and communication aids, medical and therapeutic products and audio visual aids.

The digital opportunity

BT has announced that it intends to complete the transition from an analogue telephony infrastructure throughout the UK to an IP (digital) network by 2025. The delivery of digital technology represents a huge opportunity to improve quality of life, making services faster, more efficient and more insightful.

Digital technology makes new models of service delivery achievable, with the power to;

- Empower and enable
- Safeguard and support
- Bring people closer together
- Give increased control over the way people live their lives

Tunstall has a range of resources available to help its customers navigate the digital transition, and can offer advice and support on managing the short-term impact as well as how to plan effectively for the future. Visit **tunstall.co.uk/digital-journey** to find out more.

About Tunstall

Tunstall has been at the forefront of technology innovation for the health, housing and social care markets for over 60 years. Its pioneering software, hardware and services enable new delivery models which can transform community-based health and social care, and enable people to live independently and with an improved quality of life.

Tunstall's Connected Care and Health solutions are underpinned by IP enabled platforms and infrastructure, supporting the innovative use of technology including IoT, SaaS and cellular communications. It offers an end-to-end solution, including training and consultancy, service and maintenance, and monitoring services which make more proactive and personalised models of care possible, and focus health and care teams where they are most required.

Tunstall works with social care providers, healthcare services, retirement living providers, and nursing and care organisations in 38 countries, improving the lives of millions of people, including those living with dementia, learning disabilities, physical disabilities and long-term health conditions.

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