



# Telecare - supporting independent living

Telecare builds upon the benefits offered by traditional Personal Emergency Response System (PERS) services to further enable seniors to remain living safely at home. It consists of various unobtrusive sensors placed around the home linked to a telecare enabled PERS unit, such as a Caresse, and monitored 24 hours a day, 365 days a year by a monitoring center, allowing action to be taken quickly should an incident occur.

The range of sensors provides greater reassurance and protection of seniors and people with disabilities by monitoring for fire, flooding, high and low temperatures, falling, inactivity, epileptic seizures and many more.

The use of telecare has shown the following benefits;

- Reduced delayed discharges
- Avoided the need for some hospital visits
- Significantly reduced the length of stays in nursing and residential homes
- Produced significant care provision savings

## How does telecare work?

Telecare sensors send automatic alarm calls to the monitoring center therefore ensuring that alarm calls are generated even when the senior is unable to press their pendant or alarm button on their PERS unit. When an alarm is generated by a telecare sensor, it sends a signal to the Caresse which in turn alerts the monitoring center where operators are immediately provided with the senior's details, the telecare sensor that raised the call and its location within the senior's home.

This enables the operator to react quickly to the situation and follow procedures to provide the appropriate response. Telecare is therefore a more enhanced offering and helps to monitor for a wide range of potentially dangerous situations.

## Why is it needed?

The population around the world is ageing with the number of people aged over 80 in the United States estimated to more than treble from 9.3 million (2000) to 33.7 million in 2050.

US Population by Age

Year	70 – 74	75 – 79	80+	Total 70+
2000	8.85m	7.43m	9.3m	25.58m
2025	16.04m	12.27m	15.57m	43.88m
2050	17.5m	15.07m	33.7m	66.27m

Source : US Census Bureau [www.census.gov](http://www.census.gov), population in millions

As a result the prevalence of age related conditions is continually increasing with conditions such as dementia, diabetes, hearing and visual impairments and age related accidents such as falls becoming more widespread. This means that there is increasing pressure to provide care outside of hospital settings and in the home.

Telecare is also very beneficial for residents of independent living and retirement home facilities enabling them to remain more independent.

# Helping seniors to live with dignity and

Telecare consists of various unobtrusive sensors placed either around to a telecare enabled PERS unit, such as a Caresse. It can be monitored from a call center, or by onsite care providers, allowing action to be taken quickly.



## Fall Detector

Automatically detects a serious fall and sends an alert. Also encompasses a pendant.



## Flood Detector

Provides an early warning by sending an alert to potential flood situations in the user's home.



## PIR Motion Sensor

The PIR is a wireless motion sensor that monitors for activity, raising a call when the senior has been inactive during a critical period of the day. It can also be used to unobtrusively monitor activities of daily living or to detect for intruders when the user is away from home.



## Smoke Alarm (USA only)

The radio smoke alarm raises an instant alarm call if it detects smoke, ensuring any potential fire situations are always responded to.



## Temperature Extremes Sensor

Detects low, high or rapid rate of rise of temperature within a property and sends an appropriate alert.



## Medication Reminder

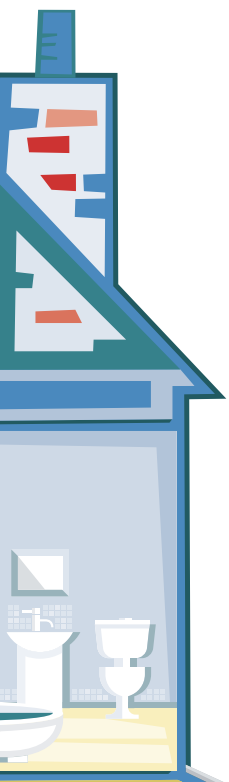
Provides effective solutions to support medication compliance. The Caresse+ can be configured to give up to 6 reminders a day.



Over the whole UK, telecare could save in the range of 9 million bed days. Extrapolated into the US market, this would

# safety in the comfort of their own homes

and the home or in the retirement living facility. The sensors are linked 24 hours a day, 365 days a year by a professional monitoring center. Alerts should be received immediately should an incident occur.



## Caresse+

The Caresse+ is the intelligent heart of the telecare monitoring system. It connects to the telephone line and automatically dials the monitoring center or personal care givers to provide two way speech and information about the telecare event.

It is designed to protect people living in their homes, apartment, condominiums or retirement residences. The units can be used to raise an alarm call from any of the telecare sensors including the pendant or by pressing the large red alarm button on the unit. For more information on the Caresse+, please see the Data Sheet.



## Wandering Client Sensor

Provides an early warning by alerting that the senior has left their home and not returned within a predetermined time period, ideal for people with dementia and their care givers.



## Epilepsy Monitor

Placed under the mattress, this compact device detects motion in events like epileptic seizures and can be linked to a Caresse unit to provide an immediate alert if a seizure is detected.



## Pressure Mat

Placed discreetly under a rug or mat, the sensor is used for 24 hour monitoring of inactivity, to immediately alert if a user leaves their bed/chair or to detect a dementia patient leaving their home.



## Pull Cord

Strategically placed around the home, the pull cord can be used to send a call for help.



## CookStop Stove Sensor

CookStop is a proactive solution for preventing fire and smoke damage that starts in the kitchen. The device attaches to an electric stove and monitors movement in the kitchen, automatically alerting a professional monitoring centre and turning off the stove if the user leaves the room and does not return within a specific timeframe.



## Panic Button

Fixed to the walls around the home, the discreet button allows the user to generate a call for help when needed. They are often fitted close to the floor level and sometimes used as an alternative to pull cords.



## Assistive Switches Interface

Connects to assistive switches for people with disabilities to enable them to generate an alarm to the Caresse unit.



ays or 20% of all Acute care beds with savings in the order of £5 billion. could represent approximately \$55 billion.

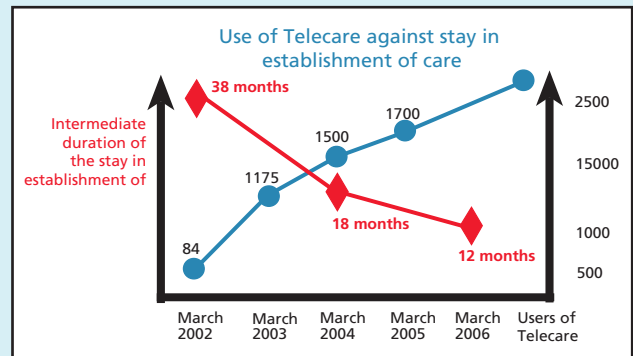
## How does it help?

Telecare has proven itself in the UK, where the experience has shown benefits to clients and care givers, enabling people to remain living independently in their own homes or to return home from hospital earlier than would otherwise be possible. A number of telecare services have shown significant benefits including:

**West Lothian (Scotland)** - as the number of telecare users has increased, West Lothian has experienced a marked decrease in the average length of stay in residential care homes from 38 months in 2002 to just 12 months in 2006 with a resultant 70% reduction in residential care costs.

The use of telecare has also helped:

- Reduce the average package of care by 3.02 hours per week per client, saving £30 per week intensive home care client.
- Reduce the delayed discharge rate to 1.64 per 1,000 over 65s, 40% less than the Scottish average.



**North Yorkshire County Council (NYCC)** - an analysis of 132 new users of telecare was undertaken in September 2008 and identified a net average efficiency of £3,600 per person pa, a 38% reduction in care costs. In the first year of the programme NYCC has saved over £1 million that would otherwise have been spent on domicilliary or residential care

**Derbyshire County Council** - a review was carried out in March 2009 looking at 1,037 telecare service users which found:

- Without telecare 30% of the service users would have needed admission to residential care
- For 41 service users there would be a reduction of up to two hours per week in domicilliary care
- 82% of service users and 85% of their relatives felt that telecare had helped them to carry on living independently

Over the whole UK, telecare could save in the range of 9 million bed days or 20% of all Acute care beds with savings in the order of £5 billion.

Extrapolated into the US market this would represent approximately \$55 billion.

As a result of such studies, the UK Department of Health (DoH) and Government is now proactively promoting the application of telecare and has committed significant funding to help ensure that telecare is provided as part of mainstream care services.

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