

# Buckinghamshire County Council

Telecare Strategy 2009-11



# 1 Introduction

The purpose of this strategy is how best to implement and integrate Telecare technology within the County of Buckinghamshire to support the demographic demands and expectations of an increasing older population who are living longer, against a background of increasing strains on statutory bodies in terms of both financial and human resources.

The vision is to provide for the residents of Buckinghamshire, a Telecare service which is better integrated within social care, health and housing, is easily accessible by potential service users including those who may be self-funders. This would provide increased choice of services available and the ability to support living independently at home whilst maintaining a quality of life.

*Telecare is the continuous, automatic and remote monitoring of real time emergencies and lifestyle changes of users within their own home and can contribute towards managing the risks associated with independent living within the home.*

Telecare is an extension of the social alarm pendant which has been used for many years and uses a range of sensors appropriate to the users needs, identified from an assessment carried out by a suitably trained assessor and with the agreement and consent of the user, to help monitor their well-being and their home environment. If an alarm is activated this is received via a telephone line by a monitoring centre, who can then take an appropriate response in line with agreed protocols. Some examples of Telecare sensors are: fall detectors, smoke and carbon dioxide detectors, room temperature sensors, activity and wander alert sensors.

People's attitudes to how social care is provided is changing, they are expecting greater choice and more say and control. Individual budgets are an example of how service delivery may well change with the user being able to take greater control in provision of their own care. Telecare may well be an option and so it needs to be easily accessed and have good signposting in place to direct users to these services wherever they are within the County.

Currently, Telecare provision within the County is fragmented with only one monitoring centre based at High Wycombe operated by Wycombe District Council (WDC) generally serving the surrounding area. The Vale of Aylesbury Housing Trust (VAHT) offers a Telecare service within their general area although monitoring is out of county and both organisations operate different charging policies. The full potential of Telecare is not being utilised by either organisation at present even though both organisations have received upgrading of Telecare overlays and monitoring technology from the Preventative Technology Grant money. Opportunities were lost to tie this injection of money in with increased service levels; however, the foundations are there to develop the

Telecare service further. It must be noted however, that culture change will be necessary to fully embed the new service.

When the existing monitoring contracts that VAHT, Paradigm and L & Q have with Invicta are due for renewal in 2009/10, it may be an opportunity for the monitoring service to come within the county if agreement to pricing etc. can be agreed between Partners. This would be a step towards a more integrated county-wide monitoring service and at the same time increase the monitoring user base of WDC, thereby contributing towards a more sustainable cost-effective future service provision for WDC and provide future income generation which could be re-invested back into developing and upgrading the service to match future demand needs.

Adult Social Care - Supporting People (SP) service include Telecare within their support service and continue to work towards developing an increased level of response to an alarm within their tendering processes, which should increase support and service quality levels for users. As a purchaser of services, SP can act as an important driver to change how service provision within Buckinghamshire must adapt to changing needs; it is in a position because of its purchasing power to be able to influence the rationalisation and development of the Telecare service within the county.

Some expenditure on equipment together with ad hoc projects, has been undertaken without relating to a planned strategy or common direction by stakeholders; this together with lack of continuity of staff with responsibility for using the Preventative Technology Grant (PTG) to develop Telecare, has hindered the opportunity for a wider, integrated, more advanced and user responsive Telecare service to develop within Buckinghamshire.

The PTG has been allowed to be rolled over into this last financial year in which to make use of it or lose it. Tight time pressures therefore exist to make use of the PTG.

Because of the current fragmented Telecare provision within the county and the under- exploited potential of Telecare to support independence within the home for older people, it was recommended to start up a couple of Pilot projects to test and demonstrate the benefits of fully utilising Telecare technology. The Pilots selected are based around Falls and Telehealth together with a Dementia project. Pilots have the advantage of testing the technology, methodology, systems and protocols. They also help develop the necessary working relationships across Partners to help move towards a more integrated and focussed approach to delivering a Telecare service for Buckinghamshire.

The Falls Pilot is centred on providing an appropriate level of physical response to assist a faller to their feet after first assessing whether they have an injury. It will reduce trauma and increase the confidence of users to remain within their own home as well as reducing avoidable ambulance call outs. The Telehealth

Pilot will develop working relationships with the Primary Care Trust (PCT). This will monitor vital life signs of patients within their own home for transmission of data by telephone line to clinical teams; it will facilitate early discharge from hospital together with supporting long-term conditions and improved well-being by patients taking an interest in their own health. It will also maximise and improve efficiencies by better direction in terms of employing staff resources to those patients who do require attention as highlighted from the data received, especially in a rural county like Buckinghamshire.

The Pilots selected are demanding and will develop Partnership working across agencies together with developing systems and protocols during their implementation. In addition a Dementia project is also being undertaken in conjunction with the Mental Health Team, to provide some stand alone technology to help support users and their carers. A demonstration kit is to be supplied to each of the three teams to enable them to review their client's needs and determine whether any items may help support them or their carers within their home. This will have the potential of delaying entry into a residential environment capable of supporting clients with Dementia.

To provide the necessary continuity of staff with responsibility for developing Telecare within the County, a Telecare Commissioning Manager and a Project Officer are to be appointed by Buckinghamshire County Council (BCC). These Posts will provide the momentum to continue the development of the Pilots and to realise the mainstreaming of a Telecare service within Buckinghamshire. Various service changes are happening within BCC over the next 12 months, the need for the Community Equipment Loan Store (CELS) tendering process to include Telecare from the outset by any new Service Provider has been identified and Telecare has now been incorporated into the service specification together with a pooled budget for Telecare. For the first time Buckinghamshire will have an in-house Telecare service. These two posts will be instrumental in developing and integrating Telecare within this service and across the county.

Previously, BCC has been without an in-house technician capable of installing, programming, maintaining and removing equipment. Outside contractors have been employed in the past which has been expensive and unsustainable in the longer term; they offer no in-house expertise available for staff to consult on potential applications of this technology. A temporary fixed-term Telecare Technician is to be employed as mentioned above to provide this service and will be located within the CELS. It is temporary because the CELS is currently undergoing a tender specification process for a potential new Service Provider.

As in other authority areas, the CELS is a logical place to site Telecare and other Assistive Technology such as for Physical and Sensory needs. It covers the county and already provides assistive technology services including: installation, maintenance, removal and recycling. It has systems in place to track and trace equipment, provision of a bar-coding system will further increase this capability.

## 2 Drivers for Telecare

The government has demonstrated the commitment to enable older people and other vulnerable groups to live independently, in control and with dignity for longer.

Our Health, Our Care, Our Say (2006) reinforces this message.

*'So for people with complex health and social care needs, we plan to bring together knowledge of what works internationally, with a powerful commitment to new assistive technologies to demonstrate major improvements in care...*

*For example, remote monitoring enables people to have a different relationship with the health and social care system. It enables people to feel constantly supported at home, rather than left alone, reliant on occasional home visits or their capacity to access local services'*

This follows on from the Green Paper – Independence, Well-being and Choice; Our Vision for the Future of Social Care for Adults in England (2005) where the vision is of high quality support meeting people's aspirations for independence and greater control over their lives, making services flexible and responsive to individual needs.

*'Telecare has the huge potential to support individuals to live at home and to complement traditional care. It can give carers more personal freedom and more time to concentrate on the human aspects of care and support and will make a contribution to meeting potential shortfalls in the workforce. '*

The government has provided £80 million funding through the Preventative Technology Grant (PTG) to increase the number of extra people to benefit from Telecare. The grant has been provided through those bodies that have statutory responsibility for Adult Social Care, it had not been ring-fenced. The intention of the PTG is clearly laid out in Building Telecare in England (2005) and the Telecare Implementation Guide which is - to Pump Prime the development of the Technology by manufacturers and to mainstream Telecare within communities.

The PTG was made available in two payments for years 06/07 and 07/08 which for BCC were £229,000 and £384,000 respectively. BCC like some other authorities, has not fully utilised their grant allocation and has therefore been allowed a final rollover period in which the PTG must be used by end of March 2009. In addition money from Supporting People has been made available to contribute to developing a Telecare service; this too has to be used by end of March 2009. There is also £385,000 available from Adult Social Care.

Plenty of anecdotal evidence suggests that Telecare could over time, deliver savings in social, residential and health care costs. It is not meant to replace other forms of care but to complement them, to support and enable people to have greater confidence to remain within their home, to encourage them to do things for themselves which in turn supports their carers and relatives, some of whom may live far away because of increasing labour mobility, consequently they may have little time to offer practical assistance. Telecare can therefore offer the possible alternative to moving into a residential or nursing home and reassure distant family that support is available.

Further evidence to the commitment of Government to Telecare, Telehealth and other Assistive Technology, is the £12.4 million funding allocated to the Whole System Demonstrator projects. This money has been awarded to three sites of differing needs: Newham Borough Council, Kent County Council and Cornwall County Council. It is the first time that this technology will be rolled out into very large numbers and evaluated using rigid research methods monitored closely by five universities. These projects have just begun and it is likely to take some two years or so before the results are published.

The Wanless Report – Securing Good Care for Older People (2006) gives a strong endorsement of Telecare and the Government policy in this respect.

Putting People First (2007) reports on the changing face of social services with the personalisation of services through initiatives such as Individual Budgets and says:

*'Person centred planning and self-directed support to become mainstream and define individually tailored support packages. Telecare to be viewed as integral not marginal'*

The value of introducing technology into supporting community health and care is mentioned in the report by Lord Darzi (2008) who says of Telehealth:

*'Improved technology is enabling patients that would once have been hospitalised to live fulfilling lives in the community, supported by their family doctor and multi-professional community teams. Where patients were once confined to hospital, Wireless and Bluetooth technologies allow their health to be monitored in their own homes. For instance, a thousand people in Cornwall are having simple-to-use biometric equipment installed in their own homes, enabling them to monitor their own blood pressure, blood sugar and blood oxygen levels. This information helps to prevent unnecessary hospital admissions.*

*This is better for patients and their carers, delivers improved outcomes, and is a very efficient way of using NHS resources. An*

*even bigger factor in the shift from hospital to home is the up-skilling of a wider range of staff, and the removal of barriers to more independent working in the patient's interest.'*

Both Telecare and Telehealth technologies and services are therefore considered important for the improved quality and choice of managing care, improving outcomes and supporting independent living within the home. However, changing demographics and strains on statutory agencies resources are the real drivers towards implementing new approaches to delivering care within the community using technology.

### 3 Future Demand

#### 3.1 Older People

By examining estimated demographic changes in population for 65+ we can begin to get an understanding of the potential demands on service provision generally and potentially for Telecare in particular, the subject of this strategy.

#### Population by age in Buckinghamshire

Population aged 65 and over, in five year age bands, projected to 2025					
	2008	2010	2015	2020	2025
People aged 65-69	21,900	23,500	28,000	24,900	27,600
People aged 70-74	19,200	19,700	21,600	25,900	23,200
People aged 75-79	15,300	15,900	17,700	19,600	23,700
People aged 80-84	10,800	11,400	13,200	15,100	17,000
People aged 85 and over	10,400	11,100	13,000	15,900	19,800
<b>Total population 65 and over</b>	<b>77,600</b>	<b>81,600</b>	<b>93,500</b>	<b>101,400</b>	<b>111,300</b>

Data from POPPI

Table 3.1

#### Notes

Figures are taken from Office for National Statistics (ONS) subnational population projections by sex and quinary age groups. The latest subnational population projections available for England are based on the 2006 mid year population estimates and project forward the population from 2006 to 2031. Long term population projections are an indication of the future trends in population by age and gender. The projections are derived from assumptions about births, deaths and migration based on trends over the last five years. The projections do not take into account any future policy changes

The above table 3.1 shows an estimated growth in population within Buckinghamshire over the next 17 years for those aged 65+ at 33,700 which represents a growth of 43%, the largest increase occurring between years 2010 and 2015, but averaging out at 1982 per year over the 17 year period.

Aylesbury Vale district is expected to show the largest growth within the county at an estimated increase in 65+ of 15,800 (47% of Buckinghamshire total) over the period – Table 3.2.

### Estimated Population by gender/age – Aylesbury Vale

Population aged 65 and over by gender, and in five year age bands, projected to 2025					
	2008	2010	2015	2020	2025
Males aged 65-69	3,600	4,000	4,800	4,400	5,100
Males aged 70-74	3,000	3,100	3,600	4,400	4,100
Males aged 75-79	2,200	2,400	2,800	3,300	4,000
Males aged 80-84	1,400	1,500	1,900	2,300	2,800
Males aged 85 and over	1,000	1,100	1,500	2,100	2,800
<b>Total males 65 and over</b>	<b>11,200</b>	<b>12,100</b>	<b>14,600</b>	<b>16,500</b>	<b>18,800</b>
Females aged 65-69	3,700	4,100	5,300	4,900	5,500
Females aged 70-74	3,100	3,300	3,900	5,100	4,700
Females aged 75-79	2,600	2,700	3,000	3,600	4,700
Females aged 80-84	2,000	2,000	2,300	2,700	3,200
Females aged 85 and over	2,200	2,300	2,500	3,000	3,700
<b>Total females 65 and over</b>	<b>13,600</b>	<b>14,400</b>	<b>17,000</b>	<b>19,300</b>	<b>21,800</b>

Data from POPPI

Table 3.2

Table 3.3 shows predicted population growth to 2025 for those aged 65+ for Wycombe district – 9,100 (27 % of BCC Total). This is the second largest estimated population growth within the county.

### Estimated Population by gender/age - Wycombe

Population aged 65 and over by gender, and in five year age bands, projected to 2025					
	2008	2010	2015	2020	2025
Males aged 65-69	3,500	3,700	4,100	3,700	3,800
Males aged 70-74	3,000	3,000	3,300	3,700	3,300
Males aged 75-79	2,200	2,300	2,600	2,900	3,200
Males aged 80-84	1,300	1,500	1,800	2,100	2,300
Males aged 85 and over	1,000	1,100	1,400	1,800	2,200
<b>Total males 65 and over</b>	<b>11,000</b>	<b>11,600</b>	<b>13,200</b>	<b>14,200</b>	<b>14,800</b>
Females aged 65-69	3,700	3,900	4,600	4,100	4,300
Females aged 70-74	3,200	3,400	3,600	4,300	3,900
Females aged 75-79	2,700	2,800	3,100	3,300	4,000
Females aged 80-84	1,900	2,000	2,300	2,600	2,900
Females aged 85 and over	2,300	2,400	2,800	3,300	4,000
<b>Total females 65 and over</b>	<b>13,800</b>	<b>14,500</b>	<b>16,400</b>	<b>17,600</b>	<b>19,100</b>

Data from POPPI

Table 3.3

The estimated population growth for South Bucks for 65+ to 2025 is 3500 (10.4 % of BCC total) as shown in Table 3.4. This is the least estimated population growth within the county.

### Estimated Population by Gender/age – South Bucks

Population aged 65 and over by gender, and in five year age bands, projected to 2025					
	2008	2010	2015	2020	2025
Males aged 65-69	1,400	1,500	1,700	1,600	1,800
Males aged 70-74	1,300	1,300	1,300	1,500	1,400
Males aged 75-79	1,000	1,100	1,200	1,100	1,300
Males aged 80-84	700	800	800	1,000	1,000
Males aged 85 and over	500	600	800	1,000	1,200
<b>Total males 65 and over</b>	<b>4,900</b>	<b>5,300</b>	<b>5,800</b>	<b>6,200</b>	<b>6,700</b>
Females aged 65-69	1,600	1,700	1,900	1,700	1,900
Females aged 70-74	1,500	1,500	1,500	1,800	1,600
Females aged 75-79	1,300	1,300	1,400	1,400	1,700
Females aged 80-84	1,000	1,100	1,100	1,200	1,300
Females aged 85 and over	1,100	1,100	1,300	1,400	1,700
<b>Total females 65 and over</b>	<b>6,500</b>	<b>6,700</b>	<b>7,200</b>	<b>7,500</b>	<b>8,200</b>

Data fro POPPI

Table 3.4

For Chiltern district, Table 3.5 shows and estimated growth in those aged 65+ to 2025 to be 5300 (15.7% of BCC), the third largest estimated district growth.

### Estimated Population by gender/age - Chiltern

Population aged 65 and over by gender, and in five year age bands, projected to 2025					
	2008	2010	2015	2020	2025
Males aged 65-69	2,200	2,400	2,700	2,200	2,500
Males aged 70-74	1,900	1,900	2,100	2,400	2,000
Males aged 75-79	1,500	1,600	1,600	1,800	2,100
Males aged 80-84	1,000	1,000	1,200	1,300	1,500
Males aged 85 and over	700	800	1,000	1,300	1,600
<b>Total males 65 and over</b>	<b>7,300</b>	<b>7,700</b>	<b>8,600</b>	<b>9,000</b>	<b>9,700</b>
Females aged 65-69	2,300	2,500	2,900	2,400	2,700
Females aged 70-74	2,200	2,200	2,300	2,700	2,300
Females aged 75-79	1,800	1,900	2,100	2,200	2,600
Females aged 80-84	1,400	1,500	1,700	1,900	2,000
Females aged 85 and over	1,600	1,600	1,800	2,200	2,600
<b>Total females 65 and over</b>	<b>9,300</b>	<b>9,700</b>	<b>10,800</b>	<b>11,400</b>	<b>12,200</b>

Data from POPPI

Table 3.5

Telecare provides the opportunity to support older people to live independently within their home by helping to contribute towards managing the associated risks with doing so, especially those living on their own. Table 3.6 shows an estimated increase of 47%, equating to 13,020 extra aged 65+ living alone by 2025, of which those over 75 are the largest sector and females represent the largest proportion of the group at 9131. This increase averages out at an estimated 766 additional people aged 65+ living alone for each year; therefore over a third of the annual increase of older people who are 65+ will be living alone.

Those living alone and in particular the 75+ age group; are vulnerable and at risk to incidents within the home. Any help to assist and provide the necessary support and confidence to continue living at home is beneficial in terms of their quality of life and general well-being. The Falls project is aimed at supporting these aims within a particular risk area.

A study was commissioned by BCC in December 2005 to examine the potential and possibly significant numbers of older people who currently self-fund their own care within a residential establishment, the assumption being that these people

### Living alone in Buckinghamshire

<b>Living arrangements of people aged 65 and over by age bands (65-74, and 75 and over) and gender and numbers living alone, projected to 2025</b>					
	<b>2008</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>
Males aged 65-74 predicted to live alone	3,383	3,553	3,995	4,046	4,080
Males aged 75 and over predicted to live alone	4,088	4,368	5,152	6,104	7,280
Females aged 65-74 predicted to live alone	7,029	7,359	8,580	8,910	8,844
Females aged 75 and over predicted to live alone	12,980	13,393	14,986	17,051	20,296
<b>Total population aged 65-74 predicted to live alone</b>	<b>10,412</b>	<b>10,912</b>	<b>12,575</b>	<b>12,956</b>	<b>12,924</b>
<b>Total population aged 75 and over predicted to live alone</b>	<b>17,068</b>	<b>17,761</b>	<b>20,138</b>	<b>23,155</b>	<b>27,576</b>

Data from POPPI

Table 3.6

may eventually call on public funds when their assets are unable to fund the care home place.

The study conducted by the Institute of Public Care (IPC) concluded that about one third of the 101 ex-self-funders within Buckinghamshire from 2003 to 2005 were known to Social Services, while the other two thirds presented when they needed financial support to remain within their care home. It was found that 70% had physical as opposed to mental health needs which could have possibly been better and more cost effectively met in the community.

Table 3.7 displays the tenure status within Buckinghamshire and demonstrates a high proportion of ownership of their own home, especially up to the age of 64, thereafter it shows a steady decline in ownership which may be as a result of going into residential care or living with relatives. Supporting this group to remain within their own home and within the community may have an impact to delay the need to move into some sort of residential or nursing home.

The high proportion of home ownership confirms the status that of Buckinghamshire as being a wealthy county with a proportion of owners being in the position of being able to potentially self-fund services such as Telecare.

### Tenure within Buckinghamshire

<b>Proportion of population aged 55-64, 65-74, 75-84, and 85 and over by tenure, ie, owned, rented from council, other social rented, private rented or living rent free, year 2001</b>				
	<b>People aged 55-64</b>	<b>People aged 65-74</b>	<b>People aged 75-84</b>	<b>People aged 85 and over</b>
Owned	86.70%	81.79%	72.03%	66.77%
Rented from council	5.70%	9.38%	13.31%	13.23%
Other social rented	3.08%	4.98%	8.13%	9.96%
Private rented or living rent free	4.52%	3.85%	6.53%	10.03%

Data from POPPI

Table 3.7

Forecasting take up of Telecare within Buckinghamshire is difficult with little historical data, however, estimates suggest an annual increase of those living alone to be around 766. The current Telecare service provision based on both anecdotal evidence and figures from some charity providers of Telecare who provide for self-funders directly, would suggest an approximate split of around 50% between self-funders and those receiving some financial support.

Making an assumption that half of those living alone would benefit from Telecare and be prepared to have the service if they were aware of the benefits that a Telecare service could offer them and it was easily accessible; we would arrive at an annual figure of around 380 of which half could be self-funding. If we add on the 70% of unknown self-funders of care previously mentioned who could benefit from a community based approach, if they were aware of Telecare possibly being

able to support them for longer within their own home, we could arrive at an annual figure of around 450.

These figures exclude the take up of Telecare by the existing population within Buckinghamshire if the service was generally more widely known and signposted. Currently there are some 9,000+ known current users of Telecare within the county representing approximately 12% of the population aged 65+.

The training being provided to staff will give them the skills and confidence to assess for Telecare as a potential option within an overall care package solution, will likely increase the referral rate of Telecare through the FACS supported route.

The demographics clearly show an increasing trend in the potential need for social care, with Telecare an option in helping to manage these future demands.

### 3.2 Dementia

Table 3.8 illustrates the estimated rates of dementia to be found in Buckinghamshire and the predicted increasing trend to 2025.

#### Dementia in Buckinghamshire

<b>People aged 65 and over predicted to have dementia, by age band (65-69, 70-74, 75-79, 80-84 and 85 and over) and gender, projected to 2025</b>					
	<b>2008</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>
Males aged 65-69 predicted to have dementia	161	173	198	177	198
Males aged 70-74 predicted to have dementia	285	291	319	372	335
Males aged 75-79 predicted to have dementia	352	372	413	464	546
Males aged 80-84 predicted to have dementia	449	479	581	673	765
Males aged 85 and over predicted to have dementia	650	709	906	1,202	1,537
<b>Total males aged 65 and over predicted to have dementia</b>	<b>1,897</b>	<b>2,025</b>	<b>2,418</b>	<b>2,888</b>	<b>3,380</b>

Females aged 65-69 predicted to have dementia	113	120	147	131	144
Females aged 70-74 predicted to have dementia	240	247	271	334	298
Females aged 75-79 predicted to have dementia	546	559	624	683	845
Females aged 80-84 predicted to have dementia	851	878	984	1,131	1,250
Females aged 85 and over predicted to have dementia	1,814	1,890	2,117	2,495	3,024
<b>Total females aged 65 and over predicted to have dementia</b>	<b>3,565</b>	<b>3,694</b>	<b>4,143</b>	<b>4,772</b>	<b>5,561</b>
<b>Total population aged 65 and over predicted to have dementia</b>	<b>5,461</b>	<b>5,719</b>	<b>6,561</b>	<b>7,660</b>	<b>8,941</b>

Data from POPPI

Table 3.8

**Notes**

For men, 1.5% of 65-69 year olds; 3.1% of 70-74 year olds; 5.1% of 75-79 year olds; 10.2% of 80-84 year olds; 19.7% of men aged 85 and over are predicted to have dementia.

For women, 1% of 65-69 year olds; 2.4% of 70-74 year olds; 6.5% of 75-79 year olds; 13.3% of 80-84 year olds; 25.2% of women aged 85 and over are predicted to have dementia.

The most recent relevant source of UK data is Dementia UK: A report into the prevalence and cost of dementia prepared by the Personal Social Services Research Unit (PSSRU) at the London School of Economics and the Institute of Psychiatry at King's College London, for the Alzheimer's Society, 2007.

The prevalence rates have been applied to ONS population projections of the 65 and over population to give estimated numbers of people predicted to have dementia to 2025.

To calculate the prevalence rates for the 85+ population, rates from the research for the 85-89, 90

Total dementia rates within Buckinghamshire are predicted to increase by 3480 over 17 years to 2025, an increase of 64% at an average rate of 204 per year, however, the rate of increase shows a steep rising curve as people live longer, suggesting that this population group is going to become an even more significant user of resources in the future.

The graph in Fig. 3.1 illustrates that although female numbers with dementia are greater than for men (probably due to greater life expectancy), overall the rate of increase is similar.

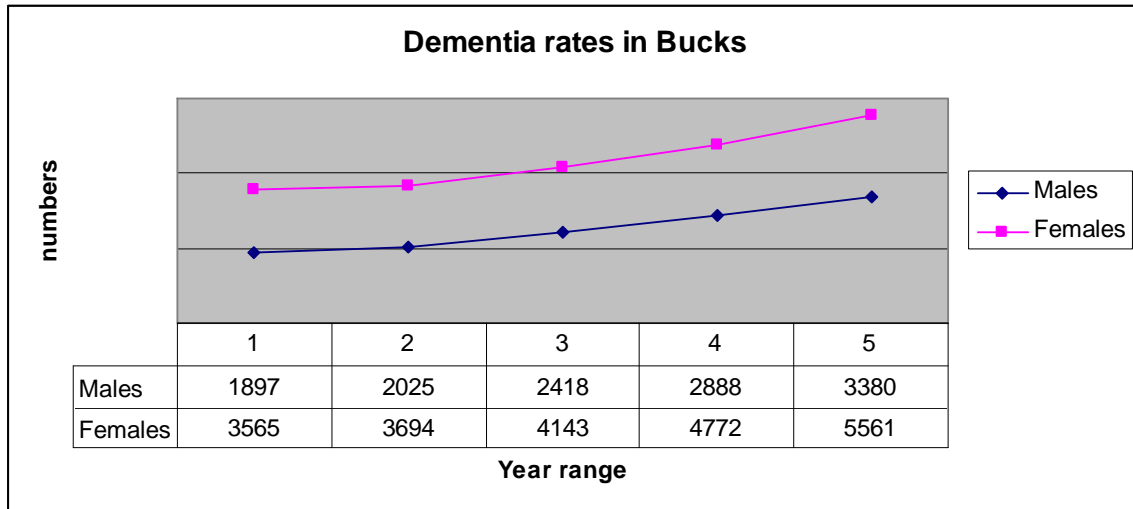


Fig. 3.1

Dementia is also to receive funding through the PTG to provide stand alone items to help support both sufferers of Dementia and their carers.

Residential care for dementia sufferers is expensive due to the increased staffing ratio required to support them. Technology is becoming available to provide increasing flexibility in how care is undertaken for this group of people, both within the home and in a residential setting. The proposed stand alone technology to be supplied is intended to support users, but equally important it is intended to support carers by offering them some opportunity of brief respite in their day to day management of their loved ones. It is relatively low cost technology.

### 3.3 Telehealth

Telehealth is the monitoring of vital life signs within the home to support early discharge from hospital, to manage long term conditions, and to increase patient's own well-being by their taking a greater interest in their own health through frequent routine taking of their own vital life signs such as blood pressure, oxygen saturation levels, weight etc. This uses a monitor similar in size to a clock radio, it uses touch screen technology with audio / visual prompts to guide users through the processes and has been found to be simple to use.

It can also reduce the risk of picking up a hospital sourced infection through early discharge to a home environment. Telehealth technology can be used along with other measures such as daily living aids, care support and Telecare in order to achieve these aims. This project involves working with Buckinghamshire PCT and will focus on patients with Chronic Obstructive Pulmonary Disease (COPD) and Chronic Heart disease.

Pilots in Sheffield, Milton Keynes and other areas have shown the following benefits:

- \*Reduced severity of exacerbations
- \*Reduced length of stay in hospital
- \*Cost savings where acute clinics are moved into the community as nurse led clinic services
- \*Home visits are reduced
- \*Reductions in hospital admissions by 10%
- \*Improved quality of life for patient
- \*Increased self-care for patients

Sheffield found that because patients became more aware of their condition they were able to take pro-active steps to manage their own health. In the Sheffield Pilot they used 30 high risk patients and calculated that based on a cost of £2000 per admission, saving 50 admissions a month could potentially save the PCT £1,200,000 a year. Buckinghamshire had in 2006/7 some 626 unscheduled admissions with 4712 bed days.

Carlisle Housing Association (2005) undertook a Telemedicine project based around COPD patients. Fig. 3.2 illustrates the differences in bed days prior to and after service implementation of their project.

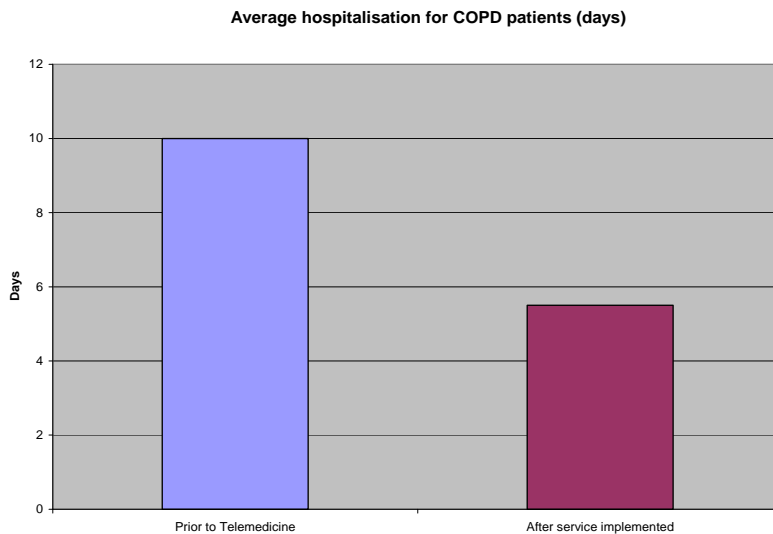


Fig. 3.2 (D. M. Taylor)

They found almost a 50% reduction in average hospitalisation bed days from 10 down to 5.5 days. This equates to potential savings of 990 bed days, which from fig. 3.3 represents savings of between £272,250 and £495,000 depending on the type of bed use within the hospital.

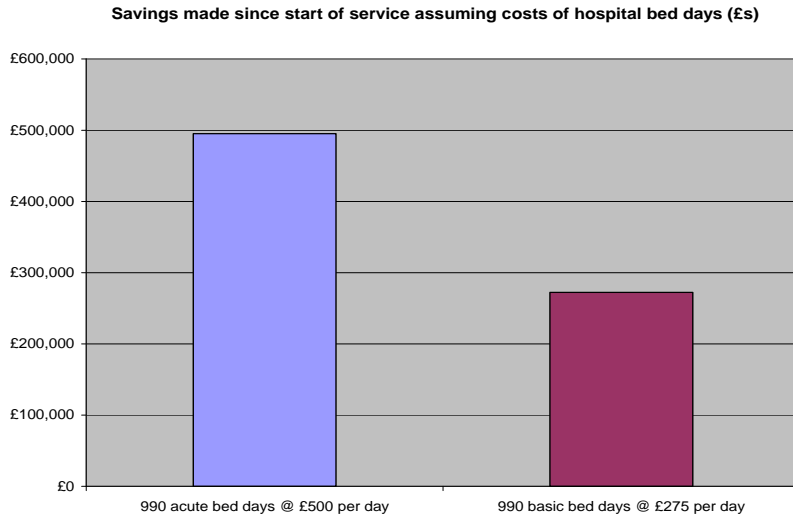


Fig. 3.3 (D. M. Taylor 2005)

From data collected earlier this year for levels of COPD within Buckinghamshire over the last 12 months by a consultant employed by Buckinghamshire NHS, it would appear there were 626 unscheduled admissions at an average cost of £1253 using 4712 bed days. Assuming a bed reduction of around 50% as per the Carlisle Housing Association project, the bed days would be 2356 at an average cost of £166/day. This equates to a potential saving of £391,096 if bed use could be reduced through the use of Telehealth. These figures are in line with government predicted savings – Table 3.5

**Potential savings from investing in Telehealth to manage COPD patients**

	<b>Improvement opportunity</b>	<b>Patients</b>	<b>Bed-days</b>	<b>Total cost</b>
Current provision		81,000	726,000	£181m
Reduce admissions by	30 per cent	24,000	218,000	£54m
Reduce remaining admissions by	50 per cent	28,000	254,000	£64m
Total gross saving opportunity			254,000	£118m
Annual cost of Telehealth to provide continuous monitoring for all patients supported at home				£55m
Total annual saving opportunity				£63m

**Table 3.5 Audit Commission report Assistive Technology -Independence and Well-being 4 (2004)**

Based on the above figures from table 3.5 at a rate of 30% reduction in admissions, the Buckinghamshire savings for admissions would have been £234,660. There would also have been a 50% reduction in the length of stay equating to £117,330 – a total potential saving of £351,990 based on the above model. Both the Pilots and government figures indicate potential savings.

As at June 2007 there were 4965 registered COPD patients within Buckinghamshire. Early intervention and preventative measures could reduce episodes of COPD hospital admissions. Use of the automatic telephone alerts via the Exeter Meteorological Office, of impending viral loads borne through weather patterns could reduce the numbers of episodes of COPD.

## **4 Service analysis within Bucks**

### **4.1 Current service delivery**

The Monitoring Centre which receives the alarm alerts from users of Telecare is one of the foundations of a Telecare service and within Buckinghamshire there is one centre operated by WDC located at High Wycombe. This generally covers the Wycombe and surrounding areas although they have clients in other areas of Buckinghamshire and includes a mix of sheltered accommodation and community based users.

The VAHT also offers a Telecare service for its own housing residents and for those in the community. However, the monitoring element is provided by an out of county contractor – Invicta Health, who are located in Kent.

Similarly, Paradigm and L & Q use an out of county provider – Invicta Health to monitor their residents.

There are also several out of county providers of monitoring services who are active within the county and include: Age Concern, Help The Aged and SAGA.

Generally speaking, these providers offer mostly the standard lifeline unit and pendant together with the simpler sensors such as smoke detectors. Physical response is limited to attendance by mobile wardens usually within normal working hours and does not involve activities such as helping people who have had a fall to their feet. In these circumstances an ambulance is usually called.

### **4.2 Estimated current Telecare usage**

The Wycombe monitoring centre currently has 3668 tenants and users they are currently monitoring for Telecare.

Vale of Aylesbury Housing Trust has around 2500 tenants and users of Telecare.

Paradigm has around 900 tenants using Telecare.

Age Concern with their Aid Call service based in Devon has 1364 users.

Help The Aged with their Senior Link service and using Elder Care as the monitoring service provider, has 256 users.

SAGA has a newly developing service, they are currently monitoring fewer than 100 users and use Initial as the monitoring service provider.

Supporting People provide funding to some of the above for a Telecare only capacity of around 1241, capacity within sheltered services is 2264, total 3505.

The total population within Buckinghamshire receiving a Telecare service is estimated to be around 9,000 users of Telecare.

### **4.3 Telehealth**

Telehealth enables the clinical management of individual patients within their home by monitoring their vital life signs such as: blood pressure, pulse, blood oxygen saturation levels, weight, etc. This information is then transmitted down a telephone line using a free phone number to a secure server for access by health professionals.

It has the potential to facilitate early discharge from hospital and to support long term conditions such as: Chronic Obstructive Pulmonary Disease (COPD), Diabetes and Chronic Heart conditions. It can help with stabilisation of a patient's health within their home; it also provides an opportunity for the patients themselves to take a greater interest of their own health and well-being.

In addition, because the information is web-based, community nurses and matrons could access the information remotely and plan their visits more effectively to focus on those in more urgent need, which in a rural county like Buckinghamshire could save time and costs.

There is no current Telehealth service within Buckinghamshire at present, although bids by Buckinghamshire Primary Care Trust (PCT) for money from the Preventative Technology Grant (PTG) to implement such a service were made, hence a Pilot is now being set up. As identified in section 2; current thinking on the usefulness of Telehealth and the adoption of such technology has been actively promoted by the Government, including the recent report from Lord Darzi.

### **4.4 Future Trends**

Currently the two main providers of Telecare available to the public – WDC and VAHT, provide different approaches to service provision and have differing pricing structures for installation and monitoring. They also tend to cover their own geographical area which is probably historically based around providing initial services for their own tenants.

BCC has provided some financial assistance from the PTG to both of these organisations to allow them to update their in-house technology to support and take advantage of the latest Telecare sensors. This was not tied to any service improvement or common direction of Telecare services for Buckinghamshire, which was probably an opportunity lost at the time. However, the Pilot around Falls should develop closer working across agencies and provide an opportunity

and a catalyst to make use of the previous investment in infrastructure. The training and equipment being provided will also contribute to these goals.

The section on Future Demand - 3, highlights the pressures likely to be experienced on future services within Buckinghamshire through the changing demographics, in terms of an increasing older population living longer, many of whom will be living alone, and the increasing rates of Dementia. Technology such as Telecare and Telehealth will make an increasingly important contribution towards helping to manage these demands. The State of Adult Social Care Workforce Report in England 2008 highlights the need for 2.5 million staff by 2025; this is an increase of 80% from the current level of 1.39 million. With the population of older people aged over 65 now outnumbering those aged under 16, this means a reduced future pool from which carers may be drawn.

Buckinghamshire is considered a wealthy county with home ownership above national levels. Table 4.1 illustrates house ownership within Buckinghamshire.

### Tenure for population within Buckinghamshire

Proportion of population aged 55-64, 65-74, 75-84, and 85 and over by tenure, ie, owned, rented from council, other social rented, private rented or living rent free, year 2001				
	People aged 55-64	People aged 65-74	People aged 75-84	People aged 85 and over
Owned	86.70%	81.79%	72.03%	66.77%
Rented from council	5.70%	9.38%	13.31%	13.23%
Other social rented	3.08%	4.98%	8.13%	9.96%
Private rented or living rent free	4.52%	3.85%	6.53%	10.03%

Data from POPPI

Table 4.1

It is likely that many of these home owners would be in a financial position to self-fund services such as Telecare, especially if they fall outside the Fair Access to Care Services (FACS) criteria. Awareness and easy signposting to Telecare services could increase take up and usage of Telecare for this population group, which may have positive implications around preventative solutions to supporting independence within the home.

Telecare capacity therefore needs to have the potential to be increased; this will also include the monitoring service provision. Developing an integrated county-

wide approach could include a larger single monitoring centre taking a much more active and wider role to improve efficiencies, service quality, and response levels, it would be more cost effective and sustainable as the numbers grow. A larger monitoring centre would have the resources to be able to respond to changes in both service needs and technology developments. Increased capacity may enable monitoring costs to be reduced as the operational overheads are spread over larger user numbers, this in turn could lead to existing users of out of county monitoring services to consider joining a local service provider and lead to a more integrated, standardised level of service and pricing structure.

Kent County Council has researched and benchmarked the cost of monitoring at £1.10. However, other monitoring centres have various pricing structures. Several items such as bed and chair leaving pressure pads have a limited life of 12 months and need to be replaced, this needs to be factored within the overall monitoring cost to ensure sustainability in the long term and re-investment in the service, especially post PTG.

Based on estimated current levels of Telecare take up, it would begin to provide a sustainable income for a single monitoring service provider. If for example monitoring was set up at say £2 per week, then  $9,000 \times £2 \times 52 \text{ weeks} = £936,000$ . In addition, lone worker monitoring, out of hours emergency repairs for Registered Social Landlords (RSL) and other similar services could provide additional income.

Telehealth has been piloted and mainstreamed in other authority areas, Swindon being an example of up-scaling from an initial 11 health monitoring unit Pilot to a service operating 50 health monitoring units. Cornwall is, as part of the Government financed Whole Systems Demonstrator project, up scaling into a very large service. Telehealth needs to be trialled and developed within Bucks to determine how best this technology can be employed to cater for future demands on services and provide a more user focussed and community based service. The Future Demand section highlights just one patient group – COPD (the identified trial group) which could benefit. However, other patient groups such as Diabetes and Chronic Heart Disease could also benefit.

#### **4.5 Response**

Appropriate response is an important component in the delivery of Telecare. Currently within Buckinghamshire there is only the one WDC monitoring centre which actually handles an alarm call. They require the names of at least two keyholders from a user of their services that are willing to respond and attend the user. Should the keyholders be unavailable then the emergency services (usually the ambulance service especially if a fall is suspected) are usually contacted. When the alarm is from one of WDC's own supported housing schemes then a mobile warden would attend, but not at present assist in lifting a person to their feet, instead an ambulance would be summoned.

Similarly with VAHT, except they use an out-of-county monitoring centre – Invicta. The various social housing landlords such as Paradigm also operate a mobile warden attendance to an alarm incident during normal office hours.

In the south of the county L&Q own 13 sheltered schemes with 340 tenants. At present there is a tender process in place to commission a new Partner. The new Partner will embrace the development of Telecare services and to begin will be trained and equipped to respond to those who fall and are not injured between the hours of 8am to 8pm.

Use of emergency services to attend alarm calls slows response times to other more pressing emergency incidents. It is an expensive way of using a fully equipped ambulance and crew to attend what may be a low priority incident and highlights a gap in service response around care issues such as falls. A recent article on the Press and Journal website reported concerns by Strathclyde Police that emergency services were being diverted to attend to care tasks and recommended that a review of responses be carried out as the current position is untenable. The ambulance service operates a priority system and calls to attend falls are in the lower urgency range to respond.

Number of times an ambulance was called to a person who had fallen but did not take them to hospital was as follows:

Bucks (excluding MK PCT) Fall calls - 1 Apr 2007 to 31 Mar 2008  
(where patient was not conveyed to hospital)

	<b>unknown age</b>	<b>age &lt;=65</b>	<b>age 65+</b>	<b>Total all ages</b>	<b>06 - 07 65+</b>	<b>Comp</b>
Apr-07	4	104	272	380	218	<b>54</b>
May-07	6	94	310	410	282	<b>28</b>
Jun-07	11	108	284	403	247	<b>37</b>
Jul-07	7	106	307	420	274	<b>33</b>
Aug-07	9	105	297	411	224	<b>73</b>
Sep-07	9	94	271	374	270	<b>1</b>
Oct-07	9	99	320	428	299	<b>21</b>
Nov-07	9	81	275	365	316	<b>-41</b>
Dec-07	11	100	331	442	309	<b>22</b>
Jan-08	12	95	307	414	283	<b>24</b>
Feb-08	9	100	285	394	273	<b>12</b>
Mar-08	6	110	320	436	342	<b>-22</b>
<b>totals</b>	<b>102</b>	<b>1196</b>	<b>3579</b>	<b>4877</b>	<b>3337</b>	<b>242</b>

107.25%

Table 4.2

Table 4.2 highlights the number of call outs attended by an ambulance crew within Buckinghamshire for the year to 31<sup>st</sup> March 2008 in which the clients did not need transporting to hospital for treatment. At an average call out cost of £200 the total cost was £715,800 which could be reduced if an appropriate response was in place.

The trend indicates a rise in using an ambulance response to people experiencing a fall, with an increase of 242 call outs at £200 making a rise of £48,400 in costs over the previous year 2006/2007. This could be a result of a combination of a limited 'out of normal hours' response service and a risk adverse policy in carrying out moving and handling, hence the use of emergency services.

Risk adverse policies to manual handling of users exist within many local agencies including some district councils and social landlords. However, as the example from Strathclyde Police and the above ambulance call outs from Table 4.2 demonstrate, there are many situations where an ambulance has attended where the crew has not been required. This is because there has been no injury or a need to transport those residents who experienced a fall to the Accident and Emergency Department of the local hospital. With appropriate training in injury assessment and manual handling skills, together with suitable mobile lifting equipment, a response service could be provided. With pressures on resources, the changing demographics of a growing older population living longer and the drive to community-based services supporting people to live independently within their own home; it makes sense to provide a service which supports these aims.

#### **4.6 Training**

To provide an effective Telecare service requires greater awareness of the application of this technology to support independent living within the home by potential referrers to this technology. Currently there is poor knowledge and skill set within Buckinghamshire especially around developing the full potential of the wider Telecare applications that are possible.

Telecare assessor training would provide the skills and confidence to assess for Telecare to determine how best to apply this technology to meet user's needs and their environment. The assessor staff could come from a range of staff across Partner agencies including but not exclusively: Occupational Therapists, Case co-ordinators, Community Matrons, District Nurses, Social Workers, Supported Housing Staff.

The installers of Telecare within Buckinghamshire are mainly from WDC and VAHT, they are currently tending to install the simpler Telecare sensors. Technology training would provide them with the knowledge and confidence to program the more sophisticated sensors to match the user with their needs and

personal environmental requirements and increase the confidence of the user to remain within their home. The Handyman scheme operating in the south of the county could also be potential installers of Telecare and two of the team are to receive training.

There has not been an in-house Telecare Technician within BCC up until now, third party commercial contractors have been utilised which are expensive and not sustainable in the longer term. The new post will address this shortfall and will be one more link in the Telecare infrastructure development within Buckinghamshire.

To overcome the risk and to address adverse policies surrounding lifting of users, a suitable training course has been identified in conjunction with the Southern Ambulance Trust. This one day training course will include injury assessment and manual handling using the Mangar Elk portable lifting device.

Appendix (ii) illustrates the training schedule.

## 5 Telecare and Telehealth Gap Analysis

### 5.1 Telecare

A Telecare service requires an infrastructure and a pathway from initial enquiry / referral through to installation, monitoring and response. It uses key critical technology together with systems and protocols that must also be robust if Telecare is to be an important component of managing the risks of supporting independence for older people within their own home.

Fig. 5.1 illustrates the Telecare process and pathway from referral through to response level, each stage is an important component of the service.

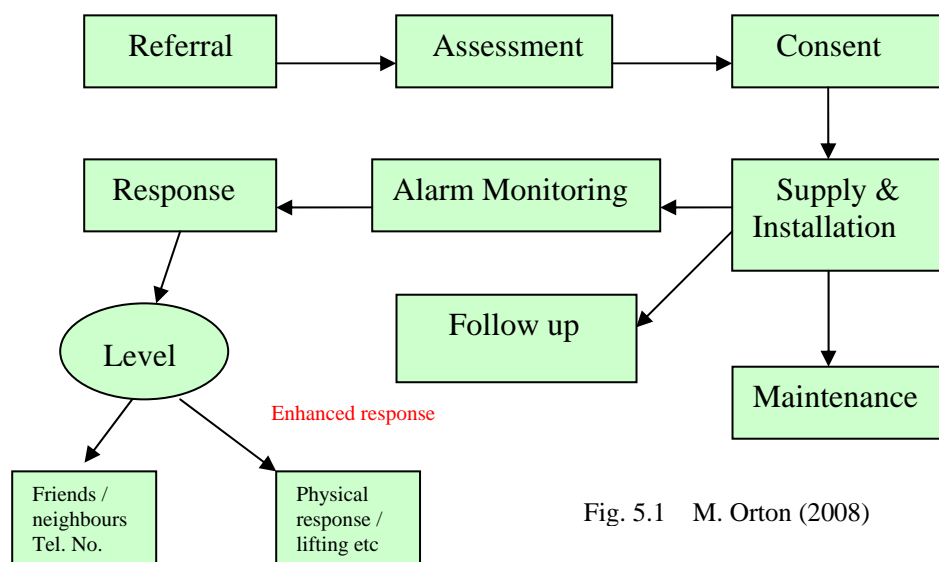


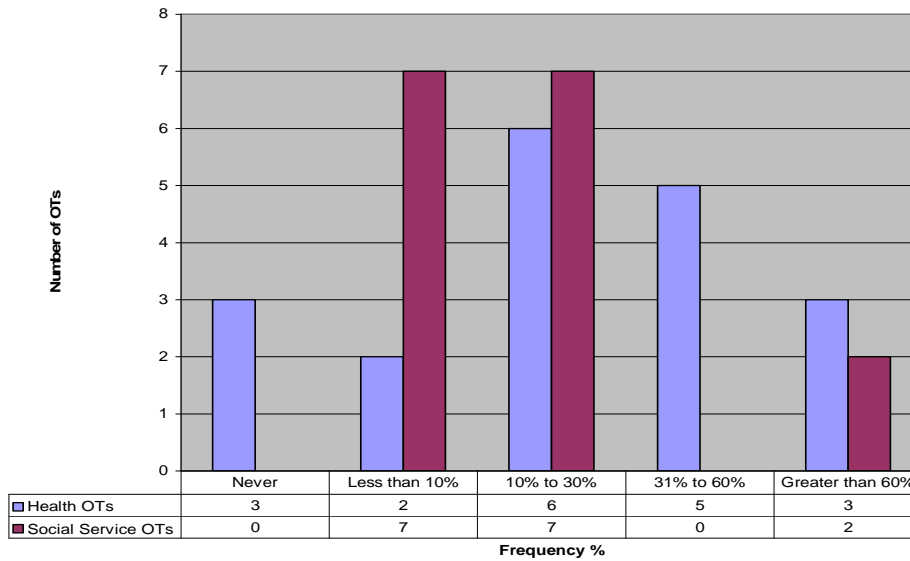
Fig. 5.1 M. Orton (2008)

#### 5.1.1 Referral

Currently there is no clear referral path for assessors working within BCC. This is because of several factors: an in-house Telecare service does not yet exist, training in assessing for Telecare and a deeper understanding of how the technology can be applied is lacking, a general lack of awareness as to how this could fit in within the traditional providing of a care package, together with the internal systems to access Telecare for their clients.

This lack of referral for Telecare can be demonstrated from results of a project examining assessment and prescription factors in prescribing Telecare by Occupational Therapists from both Health and Social Services (Orton, M. 2008) Fig. 5.2. This is despite government initiatives to drive Telecare forward.

Fig.5.2 How often do you make referrals for social alarm provision if they have no lifeline



This can be addressed by incorporating Telecare within the single assessment process so that it is flagged up as an option when considering a care package for a client. Incorporation into Swift will be important in this respect and will provide management information as to levels of Telecare usage within Buckinghamshire, enabling service evaluation and statistical information to be provided. A meeting with the IT team responsible for Swift has taken place and it is hoped that the start of this process can begin in January 2009 after present IT projects are completed. Training and awareness of Telecare will likely increase referral rate. Referral and assessment forms will need to be developed, initially paper-based and probably electronically later.

Self-funders will also require clearer sign-posting towards Telecare services. A single point of contact telephone number widely publicised would enable enquiries to be directed to appropriate service providers. This could perhaps be administered through the In Touch team who already handle enquiries within this area and are in contact with users. Developing information leaflets to be displayed in a wide variety of locations will help, together with the development of the BCC Telecare Website, perhaps with a separate website that could be more interactive but still have a link to the main BCC website.

Engaging with carer groups; there are some 6 million unpaid carers within the UK who provide an important and irreplaceable service and need all the support possible. Bucks Carers had in the past put in a bid to disseminate Telecare information to the various client groups, this bid had not been approved. Carers Bucks were asked to refresh their bid to provide a similar service. This has now been approved and a demonstration kit consisting of Telecare equipment and stand alone technology will be provided to enable them to take it around to road

shows amongst the different carers groups to create awareness and understanding of this technology.

### **5.1.2 Assessment**

Correct assessment for any Assistive Technology is the key to correctly matching the person with the appropriate technology to meet their needs within their personal environment.

Buckinghamshire has not provided the necessary training to provide the assessment skills, confidence and the awareness to encourage usage of Telecare. This is being addressed, whereby a series of 1 day Telecare Assessor Training courses has been booked and places are being filled, the first course has already taken place. The course is run by Tunstall and is recognised by the College of Occupational Therapists with a certificate available on successful completion of the program. These courses are aimed at any professional likely to be involved with assessing for Telecare or needing to have a greater understanding of its application within a care situation. It is hoped that a member from each team involved with assessing or providing care will participate, thus becoming an expert or champion in Telecare for that team.

### **5.1.3 Consent**

Consent of the user and their family is essential to providing Telecare within the home and for it to be successful and not abandoned. This applies not to just the assessment and installation process but also to the response in place to an alarm situation. As Buckinghamshire will be providing a Telecare service, appropriate protocols will need to be agreed. Documentation will need to be devised and implemented to include the assessment, consent and installation process.

### **5.1.4 Supply and installation**

Currently the Community Equipment Loan Store is undergoing a service specification review pending putting the service out to tender for the potential new Service Provider to take over on or around 1<sup>st</sup> July 2009. Initially the specification did not include Telecare within the start up of the service by whoever is to be the eventual Service Provider. Instead it was to be part of a loosely worded second stage process after the Service Provider had started, this did not ensure a service provider would provide such a service and to the necessary standards as required by the Telecare industry association - the Telecare Services Association (TSA). Representation as to the benefits of bringing Telecare into the main specification were made and this has now been adopted. This ensures a Telecare service will operate out of the CELS which is a logical base for a Telecare service and is a model used elsewhere within the

country. A Pooled budget for Telecare equipment has been established to ensure adequate funding.

Previously for the ad hoc projects a third party contractor has been used to install, program, maintain and remove Telecare equipment, which has proved expensive. The in-house service to be provided will address this issue and provide the necessary expertise to give advice to assessors on technical capability and be more reactive to local circumstances and needs within Buckinghamshire. The temporary fixed term Technician post funded from PTG money is expected to start in December / January 2009. After a period of suitable training the post holder will be able to offer this service from February 2009. A Telecare service will therefore be available up until the new service provider takes over who will have the option of taking on this fully trained person to provide continuation of service capability.

### **5.1.5 Alarm monitoring**

The monitoring centre at Wycombe is the only one based within Buckinghamshire and currently monitors 3668 users. It has received funding through the PTG and is shortly to be updated to the latest Tunstall PNC5 software, capable of identifying the full range of Telecare sensors, running management reports and giving it the capability to expand the service, thereby exploiting the new technology becoming available. Because of its long history of providing a social alarm service it has in place established tried and tested systems and protocols. However, it has not made maximum use of this technology to expand the usage of the full range of Telecare sensors available.

This may well be because there has not been a Telecare service in place receiving referrals from professional care staff with the knowledge and awareness of how Telecare can be applied to help support those users to live independently within the home. The training being provided together with the service developments should address this. Telecare Technology training is to be provided to one of the team who currently installs Lifeline units.

VAHT, Paradigm & currently L & Q are other providers of Telecare services both to its residents and to community based users, although the monitoring is presently carried out by Invicta Health based in Kent. The PTG has provided upgraded Telecare overlays to VAHT in order to make use of the latest dispersed alarm technology.

Other providers of a Telecare service within Buckinghamshire such as Shaftsbury & Housing 21 also use an external out-of-county monitoring service. Buckinghamshire therefore, has a rather fragmented monitoring service with differing charging rates and no county-wide monitoring provider.

Whilst the National Charities such as: Age Concern, Help the Aged and SAGA who currently provide services for some users within Buckinghamshire, have

their own nationwide arrangements for monitoring to get economies of scale, there is no reason why a county-wide monitoring service could not be expanded for residents within Buckinghamshire. This could well be developed around the existing centre at Wycombe; it would require closer working partnerships between WDC and all other housing providers within the county and probably would need setting up of some form of a local area agreement to cover specification, response, pricing etc. WDC has the potential capacity to expand.

This would have the benefit of delivering a true county-wide service, bringing a more uniform quality of service level together with the added potential benefit of reduced monitoring charges for users, as financially sustainable levels of users are reached. The income would provide the means to re-invest in the service as population and technology developments change.

An alternative model to the above could be a non-profit organisation such as a company limited by guarantee, made up of partners across agencies and organisations within Buckinghamshire. They would have ownership both financially and from a service perspective by having an interest and input into the company's performance and service quality. This could provide a joined up approach to the benefit of its members and end client users, any surplus could be distributed back to the members and/or re-invested in expanding and updating its services. Membership would probably have to be limited to statutory agencies, district councils, RSLs and other organisations based within Buckinghamshire.

There does not appear to be any legal difficulties providing its incorporation is carefully drafted; however, there may be cultural difficulties in getting organisations working closer together within a semi-commercial environment. This organisation structure may have the potential to tender for other services.

A third alternative would be to put Telecare monitoring out to tender. This would effectively mean the service would be provided from outside of the county. It may offer financial benefits because of economies of scale; however, it may impact on service quality due to lack of local geographical knowledge and be less responsive to changing needs within Buckinghamshire.

#### **5.1.6 Response Level**

How a response is managed is a key component of the Telecare service. Receiving an alarm call at the monitoring centre activates a defined and agreed response protocol. Normally this involves calling a designated person from a list of at least two key holders; these are usually, although not exclusively, family, friends or relatives, who can then attend to assist. Mobile wardens within sheltered accommodation during normal office hours can also be called to attend. Out of hours and when there is an emergency, the emergency services are often called. Improving the response service to an alarm alert could well support individuals to remain within their own home safely.

Falls are such an area where the response could be improved. Table 4.2 highlighted the number of falls attended by ambulance crews within Buckinghamshire for that year together with the associated costs. There seems to be a risk adverse policy to manual handling, it is much easier to just call an ambulance. Someone has to lift users including the ambulance crews.

With appropriate training, staffing levels and portable lifting equipment, there is no reason why a person who is not injured could not be assisted to their feet and given some comfort and reassurance. A course has been put together in conjunction with the Southern County Ambulance Trust to provide the training to assess for injury and to assist the person to their feet using portable lifting equipment such as the Mangar Elk. A number of courses have been booked and several but not all agencies are taking advantage of this, together with the provision of a Mangar Elk from the PTG monies.

To demonstrate the feasibility and advantages of this type of response we have identified a responder willing to undertake a response service on a Pilot basis covering two limited geographical areas. This responder is the British Red Cross in Buckinghamshire who already attend emergency situations when requested. It is an innovative approach to be piloted using the British Red Cross, which if successful could be rolled out to other areas. BCC shall be supplying funding to set up the initial service which it is hoped will be match-funded; a bid has been submitted to Tesco under their care in the community programme. The on-going call out service over the next 12 months will be provided from PTG monies as will the provision of several Mangar Elk devices and training.

Although this response service will support people to continue living within their own homes, the benefits will also accrue to the PCT in terms of reduced ambulance call outs. Therefore savings in this area could demonstrate the benefits of contributing towards funding such a service by the PCT in the longer term.

### **5.1.7 Maintenance**

Maintenance and removal of Telecare equipment will be one of the responsibilities of the new service provider for the Community Equipment Loan Store service. In the interim the Temporary Technician Post will provide this role.

### **5.1.8 Follow up is important post installation**

This is essential to ensure the equipment is functioning correctly, whether adjustments are required, the client understands the operational aspects, it is meeting the users needs satisfactorily and is providing an evidence base. A system needs to be in place to ensure this procedure is followed, it may initially be paper based but could perhaps be incorporated into Swift.

## **5.2 Telehealth**

Monitoring of vital life signs for patients within their own home using Telehealth technology is not a service currently being undertaken in Buckinghamshire. As previously referred to in section 4 - 4.3; it has the potential to offer benefits for both users and for operational / financial aspects within the Health service. This use of home monitoring technology to manage health care is growing with many Pilots around the country being expanded into a mainstream service including near neighbours Swindon. The Telehealth Pilot study proposed by BCC and working with the PCT; should provide the evidence base and develop the service systems and awareness amongst health practitioners and GP practices to adopt it on a larger scale. Whilst the initial funding for the Pilot is from the PTG and the benefits largely to be felt by the PCT, it is hoped from the Pilot results that this service can be adopted and incorporated into the future plans and budget for service development and commissioning by the PCT.

Prevention is considered better and more efficient than a cure, a weather alert service operated by the Meteorology Centre at Exeter and in conjunction with using Medixine software, can alert those Chronic Obstructive Pulmonary Disease (COPD) patients at risk of being affected by impending viral loads being carried by weather patterns, especially from continental Europe. This is an automatic telephone service which reminds registered COPD patients to take preventative action. This has been found to reduce hospital admissions. It is a cost effective service at £18 per winter per registered client after the initial set up costs of approx. £10,000. Buckinghamshire PCT is not currently taking advantage of this service, it has been identified as a potential second stage in the Telehealth project, presentations for utilising this service are to be made to the Telehealth Working Group in the near future.

## **5.3 Dementia**

This is becoming an increasing problem in managing the growing numbers of older people experiencing Dementia. Supporting the many and sometimes unrecognised unpaid informal carers is vital and using technology can often help in giving some respite, albeit for a short period. The project that BCC is undertaking will provide through the Mental Health teams access to a budget of around £25,000 to provide some stand alone technology to support 70 to 80 users and their carers depending on levels of equipment prescribed. This is relatively low cost technology and if available more widely, may be a cost effective way of assisting users and supporting carers, which could delay entry into a residential home. In view of the growing demographics for Dementia as outlined in section 3 – 3.2, this is an area which needs further development.

The project will supply an assessment / demonstration kit to each of the three teams to enable them to make reviews of their clients. These kits have already been delivered.

## **5.4 Smart Flat**

A flat has been made available in Wycombe since June 2007 and has been fitted with a limited range of Telecare equipment for demonstration and Telecare awareness purposes. This facility was provided by WDC on a temporary basis and has never been used for this purpose. Arrangements have been made to improve the range of Telecare and Assistive Technology equipment available for training purposes and modifications are to be undertaken to improve the physical access to better inclusive standards.

The flat was barely furnished; a local furniture manufacturer providing specialist chairs for older people has been approached. They have agreed and provided on a long term loan basis, an electric riser recliner armchair, a lounge chair and a commode. The armchair is to be fitted with a pressure leaving mat to demonstrate the technology to support Dementia. This flat is situated within a supported residential setting and is not suitable for the general public to access.

There is at present no facility in the northern part of the County to display and demonstrate a wide range of assistive technology including Telecare and environmental controls. The Independent Living Exhibition centre in Aylesbury, which had good facilities for the display of equipment, has now been closed. There is an urgent need for such a facility within the Aylesbury area to enable the public to become aware of what is available to support their independence and to remain within their home, especially for self-funders. This facility could also include a retail element so that visitors could actually purchase aids rather than have to go elsewhere. It would also be a facility for signposting to services such as Telecare.

Bucks User Disability Services (BUDS) has already received some funding for a Manager post to develop such a facility. It would seem logical that various stakeholders should get together to see if a sustainable strategy could be developed incorporating a retail element and income generating services around activities such as: access audits, disability awareness training, etc. A seed funding element has been allocated in the budget plan should this be pursued further.

## **5.5 New National Indicators**

Telecare is likely to impact on a number of national indicators in particular:

NI 125 Achieving independence for Older People through rehab/intermediate care.

NI 136 People supported to live independently through social services.

NI 142 No. of vulnerable people who are supported to maintain independent living.

## **6 Data Collection**

To increase the referral rate for Telecare by being a part of the assessment process, will require some amendments to the current process of recording assessments within SWIFT, in order to identify when Telecare has been assessed and used as part of the care process. The recording of this information will provide uptake levels, spend and other management information to be used to evaluate demand and provide statistical information and returns to government departments.

The projects will also need to be evaluated and a series of simple questionnaires at the beginning, middle and end of the projects covering qualitative information based around the user's perceptions of how the technology has helped in supporting independence, quality of life, etc. will be useful in supplying evidence to measure the projects. This can complement the quantitative data that will be available from sources such as the monitoring centre management reports, hospital admission data for the patients, number of call outs by the Red Cross etc. If the Telehealth project is expanded there may be sufficient data to make use of the Dr Foster software available to Health services in order to monitor the effect of the project on hospital admissions.

Much of the available results for Telecare are anecdotal, although many other Pilot studies have put together figures which support the cost-effectiveness and benefits of developing and mainstreaming a Telecare service to support people to remain living independently within their home. Evaluation of the Safe at Home scheme in Northampton in which two groups of elderly people with dementia (one receiving Telecare and one without) were compared, suggested that Telecare helped to keep people living independently in their own homes for longer. The Whole System Demonstrator projects are being evaluated under rigid research methods by a group of universities.

Evidence for Telehealth is emerging, availability of information measuring early discharge against savings in bed costs is more readily available and this supports an emerging evidence base as to the benefits of using Telehealth technology.

## 7 Conclusion

The proposed strategy should provide a focus and direction to implementing a Telecare strategy within the county. Because of lack of opportunity in developing a strategy since the availability of the PTG became known in 2005, the timescale has now become very tight.

However, the new permanent posts of Telecare Commissioning Manager and Project Officer have been filled and will for the first time provide a permanent Telecare team able to provide the continuity, resource, energy and momentum to drive this forward.

Partners have been identified for all three projects.

The decision to select the preferred manufacturer for the Telehealth Project has now been taken by the PCT and closer working to develop the systems and protocols is currently being undertaken. The Telehealth project is now beginning to move forward. This project will be largely project managed by Health as it is their patient groups and staff who are taking part. Nevertheless the Commissioning Manager and Project Officer together will need to ensure they remain hands on to maintain momentum. PCT Commissioning Management is showing an increasing interest in this area and further developments in widening the application of this technology across other areas of service use to complement the community based Telehealth project may be forthcoming.

The Telehealth Working Group are also keen to progress to the second stage of introducing a weather based COPD alert service. A meeting is to be arranged for a representative of this service from Exeter Meteorological Office to give a presentation to local Practice Managers.

The Falls project working group has just been formed and the unique and innovative solution of working with the British Red Cross to provide a physical response service is an exciting development, especially as it has now been confirmed that Tesco are to provide match funding with BCC to cover initial start up costs. Tesco will no doubt give the project a high profile within Buckinghamshire; this will provide opportunities for a joint publicity initiative between BCC, Tesco and the British Red Cross.

The Dementia teams have now received their Assistive Technology assessment / demonstration kits and they have a budget from the PTG available to support purchase of equipment for users and their carers.

Training courses have been booked and have started to run, to provide the skills in Telecare Technology, Telecare Assessment together with the Injury Assessment and Manual Handling training necessary for the falls response project have also been booked and have begun to take place.

The flat in Wycombe kindly provided by WDC in 2007 in order to demonstrate Telecare and which has not been utilised up until now, is having an extension in the period of availability for this purpose. The opportunity has been taken to install a higher level of Telecare and other Assistive Technology equipment during November to be available to professionals to use this resource as a training and awareness facility. The Telecare update has now been completed. Physical access is also being improved and funding from these improvements is coming from the PTG.

The interim Project Manager has visited and will continue to visit various teams and groups within Bucks and Health to create generic awareness of Telecare and how it is being developed in Buckinghamshire. This role will in the future be undertaken by the newly appointed Project Officer and a demonstration kit including Telecare and other technology to support living within the home has been made available for this use.

Carers Bucks have received funding together with an assistive technology demonstration kit including Telecare and other stand alone technology. This will create awareness of Telecare and the other associated technology which could be of benefit to users and carers within the various user groups, through the use of road shows across the county to reach their members.

A major important development is the incorporation of Telecare within the Community Equipment Loan Store together with a pooled budget for Telecare. The temporary Telecare Technician will also provide the capacity in-house to install and maintain Telecare. These developments for the first time will provide the foundation and capacity to provide a countywide Telecare service for Buckinghamshire.

Two staff from the Anchor Handyman scheme are participating in the Telecare Technology training course which would give them the potential to install simple Telecare equipment and could provide extra capacity should the BCC technician be fully booked.

This is an interim strategy and as the Telecare service within Buckinghamshire develops, it will be necessary to link with other on-going commissioning strategies such as with Learning Disability and Physical and Sensory Disability teams, in order to include wider client groups and address different service areas in order to maximise the potential benefits of Telecare.

Telecare and Environmental Control technology are closely related and offer the possibility of developing smart technology solutions to managing care. The location of the service within the Community Equipment Loan Store will no doubt assist in this development.

The prospect of developing a Telecare service looks good and will over the coming few months require focus and dedication in order to achieve the very tight

timescales to utilise the PTG by end March 2009. Appendix (i) illustrates the proposed Commissioning Plan for Telecare.

A longer term Commissioning Plan will need to be developed by the incoming Telecare Commissioning Manager to map the future direction of the Telecare service within Buckinghamshire.

This will require recognition of the benefits this service has to offer in contributing towards providing social care services and managing demands on future service needs. It means allocating and maintaining a sufficient budget to assure continuity, development and mainstreaming of this service beyond the expiry of the PTG.

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## 9 Glossary

### **Assistive Technology –**

Marshall, (2000) defines AT as "any item, piece of equipment, product or system that is used to create, maintain or improve functional capabilities for individuals with cognitive, physical or communication disabilities".

### **Telecare –**

Telecare is the continuous, automatic and remote monitoring of real time emergencies and lifestyle changes of users within their own home and can contribute towards managing the risks associated with independent living within the home. It uses a range of sensors to monitor the person within their home environment, alerts are then transmitted down a telephone line to a monitoring centre for an appropriate level of response to be taken.

### **Telehealth –**

The clinical management of an individual's condition at a distance or in their own home by taking readings of their vital life signs including blood pressure, pulse rate, blood oxygen saturation levels, weight, temperature, blood glucose and other measurements. These are then transmitted down a phone line to a secure centre for analysis and action where appropriate.

### **Telemedicine –**

The World Health Organisation describes Telemedicine as the practice of medical care using interactive audio visual and data communications. This includes the delivery of medical care, diagnosis, consultation and treatment as well as health education and the transfer of medical information. It is more to do with consulting medical professionals at a distance rather than monitoring of vital life signs externally.

## **10 Appendices**

- i) Telecare Commissioning Plan
- ii) Training schedule