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The UTOPIA project: Using Telecare for Older People In Adult social care

The findings of a 2016-17 national survey of local authority telecare provision for older people in England

John Woolham, King's College London; Nicole Steils, King's College London; Malcolm Fisk, De Montfort University Leicester; Jeremy Porteus, Housing and Telecare Learning and Improvement Network; and Kirsty Forsyth, Queen Margaret University Edinburgh



February 2018

About the Policy Institute at King's

The Policy Institute at King's College London addresses complex policy challenges with rigorous research, academic expertise, and analysis focused on improving outcomes. Our vision is to enable the translation of research into policy and practice by facilitating engagement between academic, business and policy communities around current and future issues in the UK and globally.

About the Social Care Workforce Research Unit

The Social Care Workforce Research Unit (SCWRU) at King's College London is funded by the Department of Health Policy Research Programme and a range of other funders to undertake research on adult social care and its interfaces with housing and health sectors and complex challenges facing contemporary societies.

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Summary of findings

Telecare is the use of electronic devices to collect, store and relay information from someone's home to elsewhere, for it to be acted on in some way. It is typically used to remind or prompt people to do or not do things, to prevent unsafe conditions developing in a someone's home, and to enable a rapid response should an incident – for example a fire or a fall – occur.

This report is based on an online survey of local authority telecare managers carried out between November 2016 and January 2017. The survey, which was funded by the National Institute for Health Research School for Social Care Research (NIHR SSCR) aimed to find out how telecare is being used by local authority adult social care departments to support older people; the largest single group of social care users. An important context to the study was an earlier, Department of Health funded randomised controlled trial which became known as the Whole System Demonstrator (WSD) project. This study concluded that telecare did not produce better outcomes for recipients over a 12 month follow-up period but these findings do not appear to have led to a reappraisal of the value of telecare by local authorities.

The survey, had twelve main sections and included 58 questions. Survey Monkey online software was used to administer the survey, which was sent to all identifiable telecare leads in England. Directors of Adult Social Care Services were emailed in those local authorities in which a telecare lead could not be identified. 154 responses were received of which 114 were valid: an overall response rate of 75%. All types of local authority and regions of England are represented within the responses.

Awareness and use of research evidence to support the way telecare is used

A third (33%) of local authority survey participants said telecare was informed by research evidence in their authority. Half (47%) said they were aware of the Whole System Demonstrator but did not seem to agree with its findings.

Why telecare?

The survey collected information about where telecare 'fitted in' with existing services, and what strategic aims local authorities wished to achieve through using it. Only a quarter (24%) of survey respondents said their telecare strategy had been produced in collaboration with NHS or other partners. Respondents felt that telecare 'fitted' best if it was provided alongside social care (77%), to support reablement (77%), for people eligible for and funded by the adult social care department (75%) as well as for people who pay for their own care (75%). 47% saw telecare as being a possible substitute for social care, but also as a 'gateway' service provided as a 'first resort' (44%) and as part of a local Better Care Fund arrangement (34%). Some needs were a particular priority: these included the use of telecare to delay and reduce the need for care and support (97%), to enhance quality of life for people with needs for care and support (90%), to help with safeguarding (85%) and to prevent carer breakdown (84%). Fewer saw a role for telecare in ensuring people had a positive experience of care and support (66%). Respondents were also asked to indicate the main ways telecare was intended to meet these needs. All (100%) said it was by helping to manage risk and promote safety, 81% that it was to support unpaid carers and 77% said it had a role in reminding and prompting. Nearly half (47%) saw telecare as enabling social contact and communication and 28% felt it could meet needs by helping people to maintain hobbies or continue to use their leisure time in ways they found meaningful.

Achieving strategic aims and monitoring of progress to achievement

Most respondents collected information about telecare deployment and use to see if they were meeting their aims. This included the efficiency with which telecare was deployed and the degree to which it led to desired outcomes. The survey also collected information about the extent to which local authorities sought to comply with agreed national or international standards and codes of practice. About half (53%) of respondents said their local authority was accredited to the Telecare Services Association Codes of Practice for Telecare and Telehealth. A few (7%) said their authority had plans to seek accreditation at a future point.

Telecare barriers and facilitators

Local authority respondents were asked to consider things that may have held back or promoted telecare use amongst older telecare user and family carers, care professionals and commissioners and senior managers. For older users and relatives, respondents felt access to telecare and availability of advice and support were good, levels of awareness about it, and the knowledge and skills needed to maintain or adjust it were seen as average or poor respectively. The potential for telecare to erode privacy or control behaviour was not seen as especially problematic for professionals, but there was more concern about its

potential to reduce human contact and face-to-face care. Barriers to promoting telecare for commissioners and senior managers were perceived to include skill deficits amongst professional staff to assess for telecare, the inflexibility of 'service bundles' or contracts with existing suppliers of technology, and lack of staff with the right skills to install telecare.

The level of financial commitment to developing telecare

A quarter (24%) of respondents estimated that the use of telecare saved money although many respondents found it difficult to provide hard evidence to support this claim. Some referred to 'hypothecated savings' – modelling based on calculated estimates of the money that might have been spent on meeting an older person's needs had telecare not been provided. Only a small proportion of respondents said that telecare funding came entirely from their local authority: additional funding from a Better Care Fund allocation, NHS Clinical Commissioning Groups (CCGs) and charges to telecare users were also mentioned as sources of income. Just 20% of respondents said their local authority had a specific spending target for telecare.

What gets considered when eligible older people are assessed for telecare?

Most (92%) respondents said that a telecare assessment should include the person's ability to mobilise and move around, their memory and whether this was impaired, and the person's ability to communicate and their daily routines. Other kinds of need were less likely to be assessed. These included the person's insight into their abilities and limitations (75%), the kinds of activities that were important to the older person (72%), their grip strength and dexterity (63%) and their ability to problem solve (54%). 40% of respondents said that their local authority's telecare assessment focused on what it was hoped would be achieved through using telecare.

Who assesses for what when eligible older people are assessed for telecare?

People from a range of different professional backgrounds acted as telecare assessors. These included specialist telecare workers (47%), care managers and social workers (60%) and occupational therapists (OTs) (49%). Staff in voluntary sector and housing settings were also involved in assessing for telecare in some local authorities. Formal assessments for telecare were not always completed before telecare was provided. 16% of respondents said they were always completed and a further 20% that they were usually completed, but with some exceptions. Non-assessments prior to telecare deployment frequently seemed to be associated with a need to install telecare quickly – for example, to support a hospital discharge. In some local authorities respondents also indicated that some kinds of technology were available without assessment. These included some 'plug and play' devices such as pendant alarms. By contrast, 34% of respondents also said that some kinds of telecare were only available after an assessment. 22% of respondents said that people eligible for publicly funded care could self-assess for telecare and 28% said that it was possible for people who had a direct payment to spend part of it on telecare. 24% said that advice was available to people who wanted to spend their direct payment on telecare: access to advice was almost always said to be available. 9% of local authority respondents said that it was always possible for an assessor to observe how a prospective telecare user interacted with their

home environment and a further 34% said this was 'usually' possible. Where assessments were completed in non-home environments these were most frequently done in hospital or reablement settings, followed by assessments completed by telephone.

Assessing eligible older people for telecare: reviews and the assessment tool

80 respondents answered an 'open' format question which asked if reviews were carried out to check that telecare was working and meeting the needs for which it was intended. In the overwhelming majority of cases respondents confirmed this to be so. Though telecare reviews were completed after six weeks in some local authorities, in others reviews were incorporated into the annual review of care and support. 11% of respondents said that their telecare assessment tool had been formally validated.

Training

The largest percentage of local authority respondents (47%) who answered questions about training said that it was provided for people who assessed for telecare. This appeared most frequently to be provided by telecare manufacturers or suppliers (45%) followed by 'peer-to-peer' training (37%) and training provided by a local authority training team (29%). The percentage of training formally accredited by an external organisation like a university or college was very small, and almost none of the training provided led to a formal qualification of any kind. Most training was short: for 24% the duration was between ½ and 1 working day.

The kinds of devices/forms of telecare available for deployment

Amongst respondents who answered the question, just under 40% obtained telecare from between 1-5 suppliers. The most commonly used types of technology were lifeline and pendant alarms (53%), fall detectors (50%), bed or chair occupancy sensors (48%), and smoke detectors/alarms (42%).

Installation and maintenance of devices

The survey included questions about who was responsible for installation, maintenance, initial response to alarm signals and any mobile response. Housing associations, housing departments, manufacturers and suppliers, and fire and rescue services were most frequently mentioned as telecare 'installers', and maintenance was most commonly seen by respondents to be the responsibility of manufacturers or suppliers, housing associations, and housing departments. The initial response to alarm signals generated by telecare devices was also most frequently the responsibility of housing associations, manufacturers or suppliers or housing departments. Any mobile response (following call centre triage) was more likely to involve one of the emergency services or a care agency. Though specialist telecare workers were frequently described as being responsible for installing and maintaining devices, manufacturers, suppliers and other specialists also undertook this role. Very few care professionals were involved with installation and maintenance. There were also different approaches to maintenance: 57% of local authority respondents said the devices they used were programmed to send a signal to the call centre when servicing was needed; 47% said they did an annual

service, 30% said they waited for the telecare user to tell them if a device malfunctioned or needed servicing and 17% said that service users and family carers were responsible for basic maintenance. Respondents were also asked why some people might ask for telecare items to be removed. Half (56%) referred to changes in need, followed by concerns about costs and rental charges (37%) an inability on the part of the telecare user to 'get on' with the device (33%) or because the telecare user felt the device did not work properly (26%).

How any response to information generated by telecare is organised

Relatives and family were the most frequently mentioned group of telecare 'responders' (20%) followed by the local authority's own response service (15%) or an independent sector service commissioned by the local authority (12%). Shire counties were less likely than other local authorities to offer a mobile service.



Introduction

This report describes how electronic assistive technology and telecare are used by local authorities in England to support older people. The survey on which it is based provides an up-to-date picture of how and why local authorities are using telecare for this group of people, who are by far the largest consumers of care services in the UK. The survey, which included all 152 local authorities in England, achieved a high response rate which means that the findings are likely to offer a reliable picture. It is hoped the report will be of interest to a range of different telecare 'stakeholders', including local authorities and their telecare lead managers, practitioners, academic colleagues, the telecare industry and third sector organisations such as Age UK which offer support to older people and their family carers and bodies such as Skills for Care that offer guidance to support the development of good practice.

There are 4 sections:

In **section 1** (pp7-8) background information is provided. This briefly describes the policy context and refers to key research evidence. It describes the rationale for the survey and what information was sought.

In **section 2** (pp9-11) the survey methods are explained.

In **section 3** (pp12-40) the findings are presented. These are a descriptive reflection of current practice.

In **section 4** (pp41-48) emerging issues and implications are discussed with reference to wider research literature. Suggestions for telecare service practice and improvement are set out for local authorities and government policy makers.

1 | Background, rationale and objectives to the study

Assistive technology and telecare devices include a wide range of products. They include smoke alarms that are purchased in many High Street stores, and pendant or wrist alarms that have been very widely used for several years. They can be simple 'plug and play' devices like electronic calendar clocks (which can play an important role in keeping someone living with dementia oriented in time), to devices such as gas switch off equipment that can temporarily disconnect the supply to an unlit device from which gas is escaping and require skilled installation. They can, like fall detectors personal alarms and environmental sensors, be linked to a call centre or they can be simple 'stand-alone' technologies which are not linked, such as electronic medication dispensers. They can be 'active' – requiring user activation; usually a button to press or like most environmental sensors, work 'passively' requiring no user input to work. They help to make life easier and compensate for disabilities or impairments. It is claimed they support independence, reduce family workload and save money by preventing unnecessary hospital stays or more expensive care.

Early small-scale studies (Mitchell, 1996, Woolham, 2005, Wey, 2003 and 2006; Calder, 2006, Alaszewski and Cappello, 2006, Bowes and McColgan 2006, Cahill et al., 2007), invariably suggested positive outcomes for telecare users and their relatives and carers. These, and lobbying by the assistive technology (AT)/telecare industry led the Department of Health (DH) to issue guidance and to provide an £80m Grant programme for local authority adult social care departments in order to support wider telecare use. It also funded a clinical trial (the Whole System Demonstrator project or WSD) to evaluate outcomes for telecare users and cost effectiveness of telecare provision. Though it was widely expected the WSD would demonstrate the effectiveness of telecare use, the researchers found no evidence that it improved outcomes (Steventon et al., 2013). This created a 'policy problem' for a number of different telecare stakeholders, including:

- the Government, because policies supporting the development of telecare service provision were at odds with WSD findings which concluded that telecare offered few advantages over traditional care and support;
- local authorities, some of which had invested large sums at a time of unrelenting budgets cuts;
- telecare manufacturers, because any loss of confidence in telecare's importance to recipients would jeopardise their commercial position if there was reduced investment in the UK;
- service users and carers, who were using telecare services which it was now suggested were no better than traditional forms of care, and finally

- ♦ telecare ‘pioneers’ – early telecare project managers, telecare enthusiasts whose support for telecare was founded on early evaluations which invariably suggested positive outcomes.

To date, however, the WSD findings do not seem to have influenced local authorities and policy makers. The WSD remains an important study and its neglect is curious. The research team wondered why the findings had been overlooked and what, if any, consequences might have flowed from this.

The rationale for this new study was therefore to explore whether it might be the *ways* telecare is provided and used, rather than telecare itself, that could account to some extent for WSD findings. Though a large and rigorously designed study, the WSD was not without shortcomings, and has been criticised for its lack of ‘ecological sensitivity’: that it did not take into account pre-existing good practice in the three local authorities in which data were collected (Lowe, a, b, c, 2013), did not prescribe the ‘intervention’ (local authorities were free to assess for and deploy telecare as they saw fit) and so samples could have contained an unknown number of people for whom telecare might reasonably not be expected to make a measurable difference over the intervention period, (because of variation in their level of need at the time they were recruited to the trial). Finally, the intervention period itself might not have been long enough, since the trial followed up trial participants for only 12 months.

The main research aims of the present study were therefore to examine:

- ♦ local authority strategic aims when offering telecare to older people and what local evidence was being collected to enable local authorities to assess if these were being achieved;
- ♦ how telecare was operationalised and delivered: taking as ‘given’ that the WSD project concluded that telecare might not necessarily produce better outcomes, to explore possible reasons for its continuing development and use with telecare managers.

2 | Research design and methods

There were three parts to the study. Stage 1 consisted of semi-structured interviews with telecare managers working in a representative sample of 25 local authority adult social care departments or commissioned organisations; in stage 2 semi-structured interviews were completed with telecare 'stakeholders' in four of these authorities (selected to be contrasting case studies) and stage 3 comprised an online survey questionnaire. This report is based on the findings of this stage 3 survey only: further outputs which draw on stage 1 and 2 data are planned.

The study was also supported by an advisory group consisting of representatives from Age UK, Skills for Care, the Association of Directors of Adult Social Services (ADASS), and the telecare industry, a recently retired Consultant Occupational Therapist who had specialised in the field of telecare for many years, an older service user and a family carer.

The full study received a favourable ethical opinion from the Health Research Authority before data was collected (HRA reference 16/NI/0051) and was also supported by ADASS.

The online survey went live on 2nd November 2016 and closed on 5th January 2017. It was widely publicised before the survey launch at the 2016 National Children and Adult Services Conference (NCAS) in Manchester. For example, blogs were written in 'trade' publications including the Telecare Learning and Improvement Network newsletter, Community Care online and the ADASS bulletin. Using publicly available data from the ADASS website, Directors of Adult Social Care Services in local authorities where a telecare lead manager could not be identified were sent a short email with a link to the survey with a request to forward it to an appropriate telecare 'lead' or manager. A reminder was sent to those that had not completed the survey after three weeks.

The survey was designed by the research team with guidance from members of the advisory group. It comprised 58 questions, of which 11 were 'open' format. It had 12 main sections:

- ♦ Awareness and use of research evidence to support the way telecare is used.
- ♦ The strategic aim of telecare in local adult social care departments.
- ♦ Achieving strategic aims and monitoring of progress to achievement.
- ♦ Telecare barriers and facilitators.
- ♦ The level of financial commitment to developing telecare.
- ♦ What is considered when eligible older people are assessed for telecare.

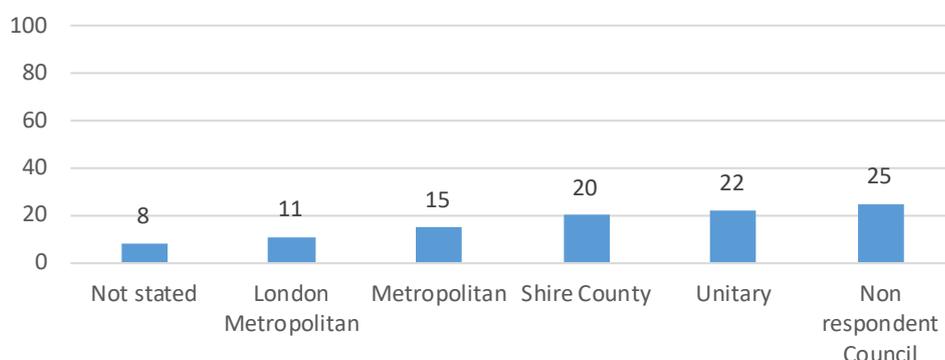
- Who assesses for what when eligible older people are assessed for telecare.
- Reviews and the assessment tool.
- Training.
- The kinds of devices/forms of telecare available for deployment.
- Installation and maintenance of devices.
- How any response to information generated by telecare is organised.

The structure of the questionnaire was intended to reflect the main stages in a typical local authority telecare process. ‘Survey Monkey’ software was used to collect data since it was easy to use and conformed to EU standards of Data Protection. Collected data were downloaded to Statistical Package for Social Sciences (SPSS v.22) software for analysis.

The survey achieved an overall response rate of 114 or 75%. 42 responses were excluded. These came from people who visited the survey link but did not complete questions (Survey Monkey records all ‘hits’ as responses) repeat submissions from the same ASCD (in which case we chose the one that was most fully completed), anonymous responses (where it was impossible to determine the respondent’s employer), private individuals and responses from social services departments from other nations of the UK (the survey was funded for England only). Responses from organisations commissioned to provide telecare services by the ASCD were included: this group constituted 20% of all valid responses.

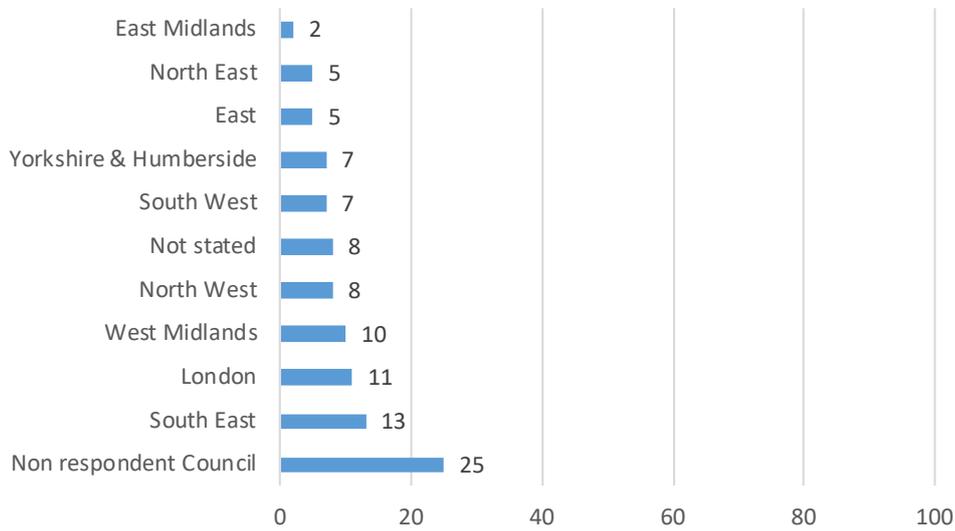
In the figures presented below, the data includes both non-responses to individual questions (‘not stated’) and non-respondent local authorities, which constituted 25% of local authorities. The numbers presented in all the figures below are percentages. Some of the questions allowed respondents to tick more than one box and where this is the case, the percentage of respondents who did not answer the question and the overall percentage of non-responses are excluded to make the figure easier to read.

Figure 1: Responses by type of local authority (n=152)



Each type of local authority was represented in the survey response as can be seen in figure 1, as were all geographical regions of England (figure 2).

Figure 2: Responses by region (n=152)



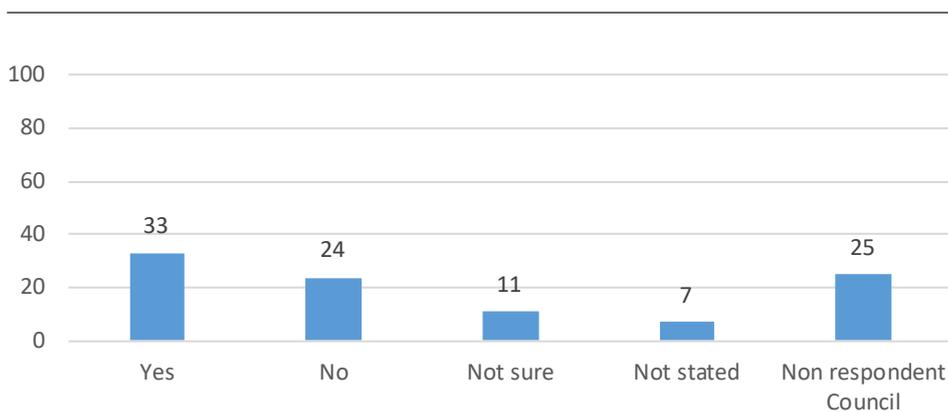
Although the survey received a good response, perhaps reflecting interest in the topic amongst local authorities, it may have excluded valid responses from some because of uncertainty over who had replied. Additionally, not all the questions were answered by all respondents.

3 | Survey findings

1. Awareness and use of research evidence to support the way telecare is used

Awareness and use of research evidence were included as a survey topic because of controversy, described in the first section of this report, especially over the cost-effectiveness of telecare following the publication of findings from the WSD project.

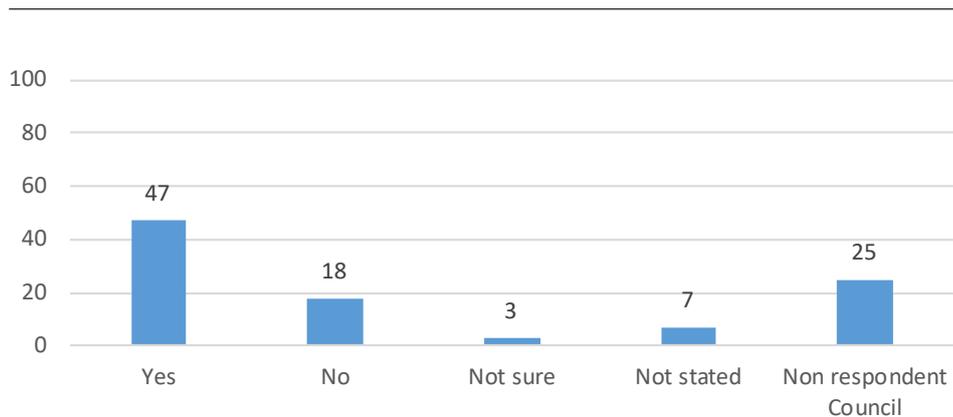
Figure 3: Broadly speaking, would you say that telecare in your local authority is informed by research evidence? (n=152)



As can be seen, only a third (33%) of respondents said that research evidence was being used, and almost a quarter (24%) said it was not.

Respondents were also invited to provide examples of the telecare research they had used to help improve telecare use for older people in their local authority. Responses fell into two main groups: those that referred to general research and reports carried out in universities or commissioned by other organisations, and those referring to internal or commissioned evaluations of telecare use in their local authority. A small number of respondents (11) said they had no knowledge of any research. Amongst those referring to externally commissioned studies, a small number provided very detailed examples of telecare research, and others referred to guidance and other material produced by organisations such as the Telecare Services Association, Age UK, and ADASS. Others referred to material provided by manufacturers and suppliers. Amongst internal or local authority commissioned evaluations, some were based on monitoring reports for specific purposes (for example, to assess the impact of telecare on moves into residential care or its perceived usefulness to the recipient) while others were internal evaluations of specific telecare devices.

Figure 4: Are you aware of the findings of the Whole System Demonstrator project?
(n=152)



Though almost half (50%) said they were aware of the findings of the WSD project, over a sixth of telecare leads (18%) said they had not and 3% were not sure. Those who said they were aware were invited to respond to an open question: ‘Do you have any opinions about the findings of the WSD?’ In general, those who responded to this question had negative opinions. Several respondents felt that the WSD findings did not accord with their own experience of telecare use in the local authority in which they worked, as this example illustrates:

‘I’m broadly aware of the WSD research but wasn’t aware that it concluded that telecare doesn’t provide better outcomes. This conclusion is very different from our own experience. I recall the WSD findings were delayed but led to the 3 Million Lives campaign led by the DH. Not sure why DH would want to expand use of telehealth and telecare if their research showed it didn’t work!’ [14]

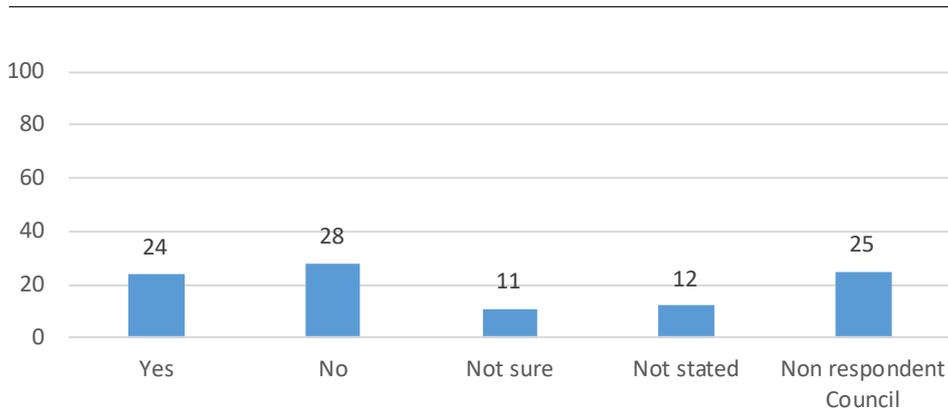
Some local authorities felt that the WSD had a negative impact because the study undermined what they felt was positive work in developing telecare. Only one respondent (whose authority had been one of the WSD sites) felt that the WSD had contributed to positive changes in telecare provision there. Negative comments included those from respondents who felt that the study was now out of date, that it was methodologically flawed, and that the findings were not trusted within telecare organisations or externally. The quotation below illustrates this perspective:

‘It seems like nothing tangible or good for service users has really come from that. A lot of money was spent, however, telecare cannot be (formally) tested outside of its context (social care, unsafe and neglected environments, lack of care, socially isolated service users, destructive relationships, safeguarding concerns, illness and disability), as this context is exactly what makes or breaks telecare working or not’. [26]

2. The strategic aims of telecare

Several questions were included in this section. Rising demand for services coupled with shrinking resources, and a range of policy initiatives, have underlined the importance of having an effective strategic relationship with local NHS Trusts as well as other local organisations. This is likely to be of particular importance in the field of telecare, since one possible outcome is to reduce demand for NHS services, particularly unplanned hospital admissions (such as those arising from falls, for example).

Figure 5: Has your current telecare strategy been produced in collaboration with NHS and other partners? (n=152)

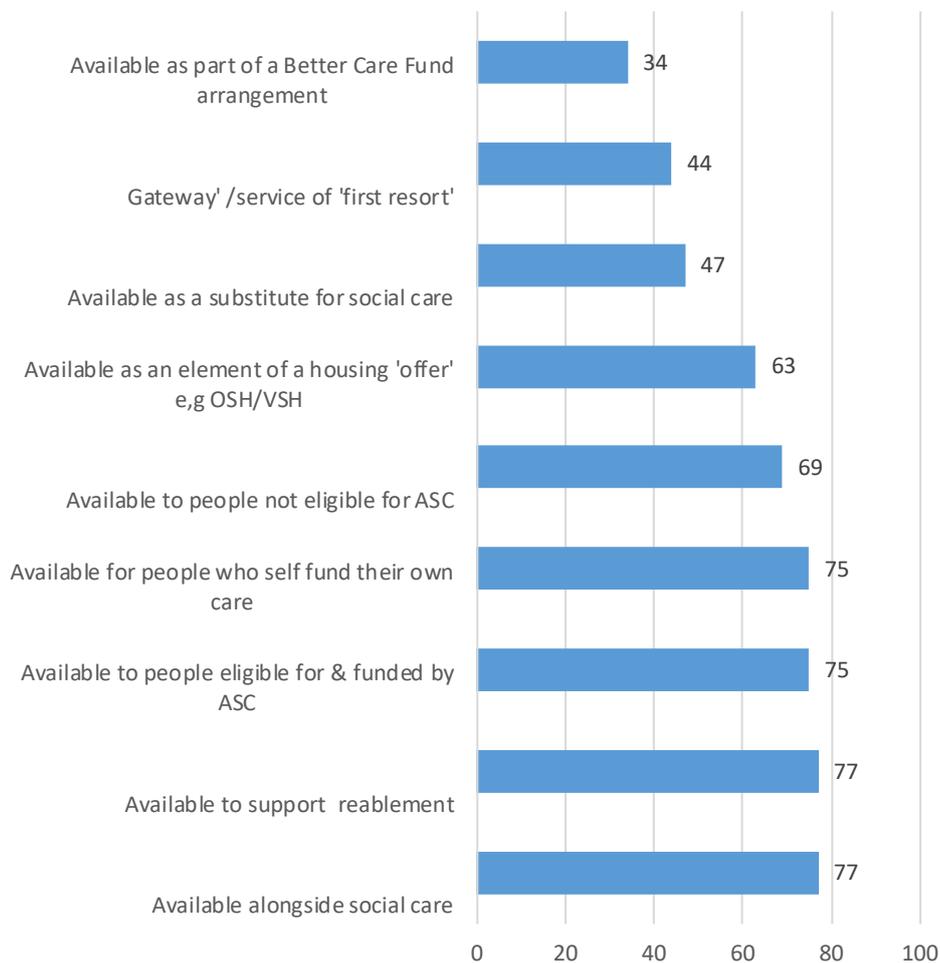


This survey found that fewer local authorities (24%) had a telecare strategy that had been produced collaboratively with the NHS or other health partners than had (28%) – and 11% were not sure.

This section also included the open question ‘*Is telecare referenced within your local authority’s carers’ strategy?*’ 35 respondents said it was, 28 that it wasn’t, 10 said this was being developed and 10 said they did not know.

To gain a sense of how telecare services fitted with other services for older people provided or commissioned by the ASCD, respondents were asked if any of a range of possible ‘niches’ were filled by telecare.

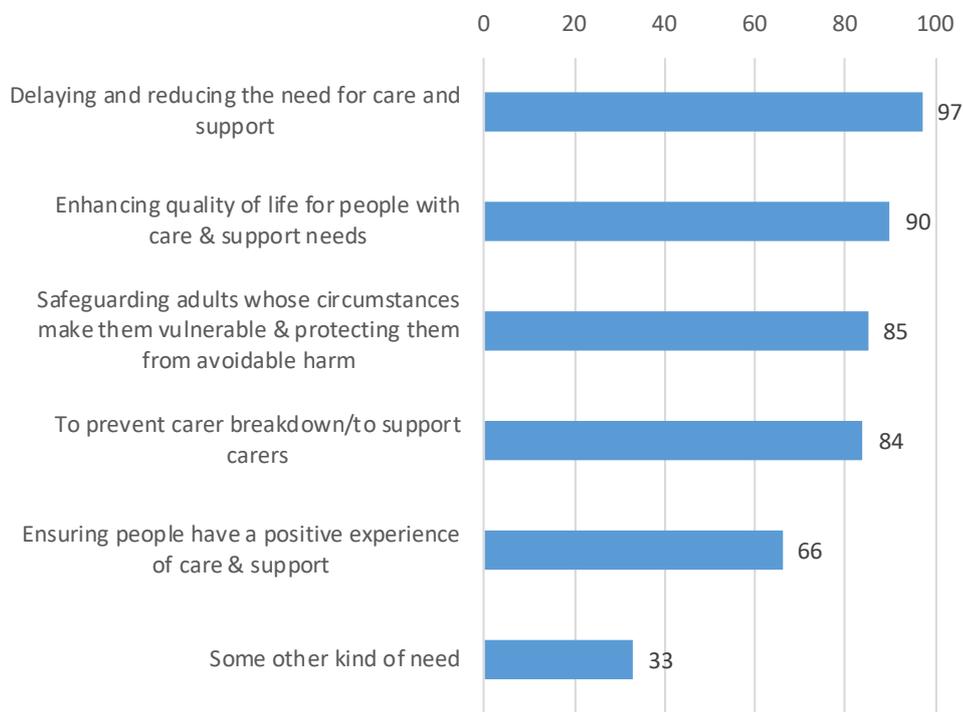
Figure 6: Where does telecare fit in relation to other forms of care and support for older people?



As figure 6 shows, over 75% of respondents said telecare was used to augment social care, and to support reablement, and 75% said it was available for people eligible for local authority funded adult social care as well as for people who self-funded. Over half (69%) also indicated a role for telecare as something that could be made available to people who were not eligible for social care, and as part of a 'housing offer' – for example, in sheltered (OSH) and very sheltered housing (VSH) or extra care (63%). (These are different kinds of supported housing arrangement for older and disabled people, in which accommodation is either physically adapted to the needs of tenants (OSH) or in which care or support can also be made available on site if needed (VSH or extra care housing). Almost half (47%) envisaged its use as a substitute for social care, and a slightly lower percentage (44%) saw telecare as being a 'gateway' service: the first form of support offered to people seeking help from an ASCD. Just over a third (34%) saw telecare as something that could be available as part of a Better Care Fund arrangement (generally a fund directed to speedier hospital discharge).

Respondents were also invited to indicate what needs they envisaged telecare would meet for older people locally.

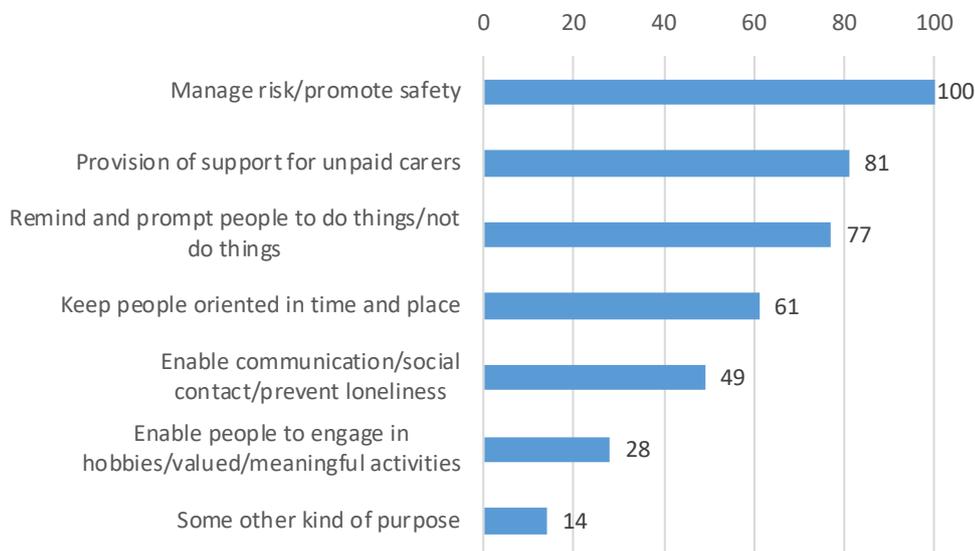
Figure 7: What needs are telecare intended to meet for older people in your local authority?



As can be seen in figure 7, key priorities for the great majority of local authorities were to use telecare to delay or reduce the need for other forms of care and support and to enhance the quality of life of telecare users. The use of telecare to safeguard vulnerable adults – essentially, to manage risk and to keep people safe, were also priorities, as was the use of telecare to prevent carer breakdown. Fewer participants referred to the use of telecare to enable people to have a positive experience of their care and support.

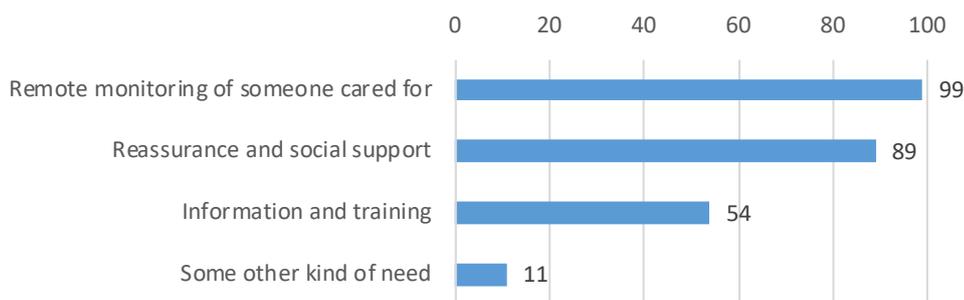
These priorities broadly aligned with the views of respondents about how, operationally, telecare would be used to meet needs. As can be seen in figure 8, there was overwhelming support for using telecare to manage risk and promote safety. Its use to support family carers also featured prominently. Telecare use to enable communication or allow recipients to continue to pursue hobbies or meaningful use of leisure time was less likely to be endorsed as a priority need.

Figure 8: What are the main ways in which telecare is intended to meet the needs of older people?



Further information was sought about the ways in which local authorities intended to use telecare to support carers and relatives. Figure 9 shows that the use of telecare to remotely monitor the recipient, and thereby offer reassurance and support to carers was seen as much more important than using it to provide information and training, or meet other needs.

Figure 9: How could the needs of relatives and unpaid carers be met through providing telecare?



3. Achieving strategic aims and monitoring progress to achievement

The survey included three questions in this section. The first was an open question *'How will your adult social care department know if it is achieving its strategic aims for telecare? What kinds of information is it collecting/will it collect that will help it assess this?'* Several ways of measuring the achievement of strategic aims were mentioned, all focused on diverse ways in which statistical data were collected. These included performance indicators of various kinds focused on efficiency (for example, the speed with which installations were completed) and outcomes (for example, whether telecare reduced the incidence of falls, admission to hospital, cost effectiveness). Some respondents referred to the need to review the data collected, to ensure that the right information was being compiled:

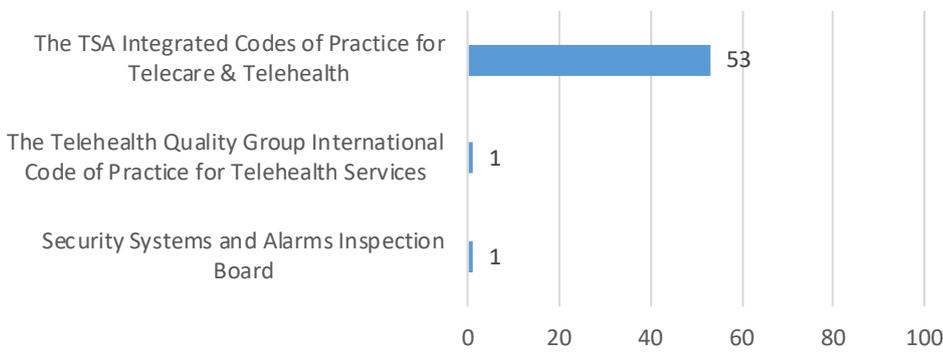
'They collect too many statistics about the quantities of equipment provided and the level of referral uptake, whilst largely ignoring the benefits to the end user and their carers and families. Only recently have they acknowledged this and are now looking at how what has been provided over the last 3 years has actually supported the key target areas of the CCGs and social care'. [20]

One respondent challenged what they assumed was a premise of the question, and argued:

'If this study is going to do anything, can it please acknowledge that telecare is only part of a care and support mechanism and whilst the numbers using telecare can be recorded and reported, to try and extract singular impacts and aims for just telecare threatens to silo telecare again and take it back 5-10 years. All interventions make an impact but they do it together'. [64]

Another way of assessing strategy achievement is compliance with agreed international or national codes of standards for telecare. Though these do not enable an assessment to be made of progress towards local authority specific strategic objectives, they do offer a means of assessing the quality of the service.

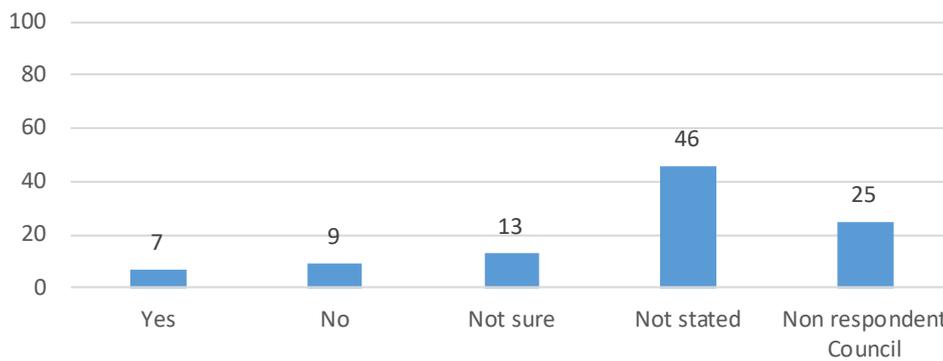
Figure 10: Which, if any, of the codes or standards that apply in England is your service (or the service used by your ASCD) accredited or certified to?



As can be seen in figure 10 just over half (53%) of those who responded to the question said that their local authority was accredited/certified to Telecare Services Association practice standards for telecare and telehealth. Smaller numbers also said they use the Telehealth Quality Group international Code of Practice, or the standards of the Security Systems and Alarms Inspection Board (SSAIB).

Of those local authorities that were not affiliated or certified to any codes or standards, as figure 11 shows, 7% said they intended to do so in future. 9% said they had no plans, and 13% that they were unsure.

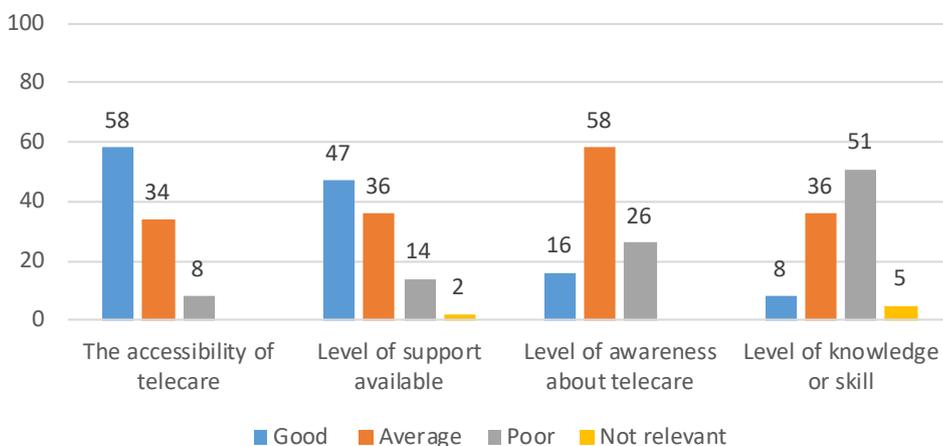
Figure 11: If your telecare service is not accredited or certified to any codes or standards that apply in England, does it plan to seek accreditation/certification or to work with a service that has such accreditation/certification? (n=152)



4. Barriers and Facilitators

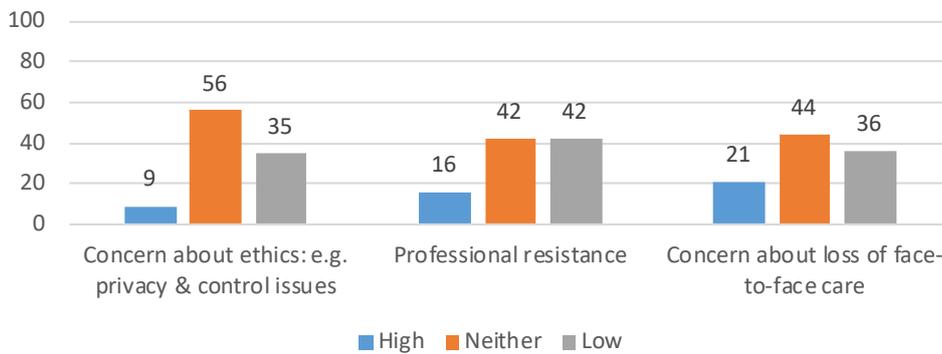
Telecare services are complex and it has taken well over a decade for them to be seen as a mainstream form of service provision. Information was sought in the survey about the extent to which these barriers had been evident, and whether they had been successfully overcome. Questions focused on potential barriers and obstacles involving three groups of ‘stakeholder’ – older telecare users and their relatives and family carers, professionals or front-line care workers, and commissioners and senior managers.

Figure 12: Thinking of older telecare users, potential users or their relatives or unpaid carers, how would you describe the following at the moment in your local authority?



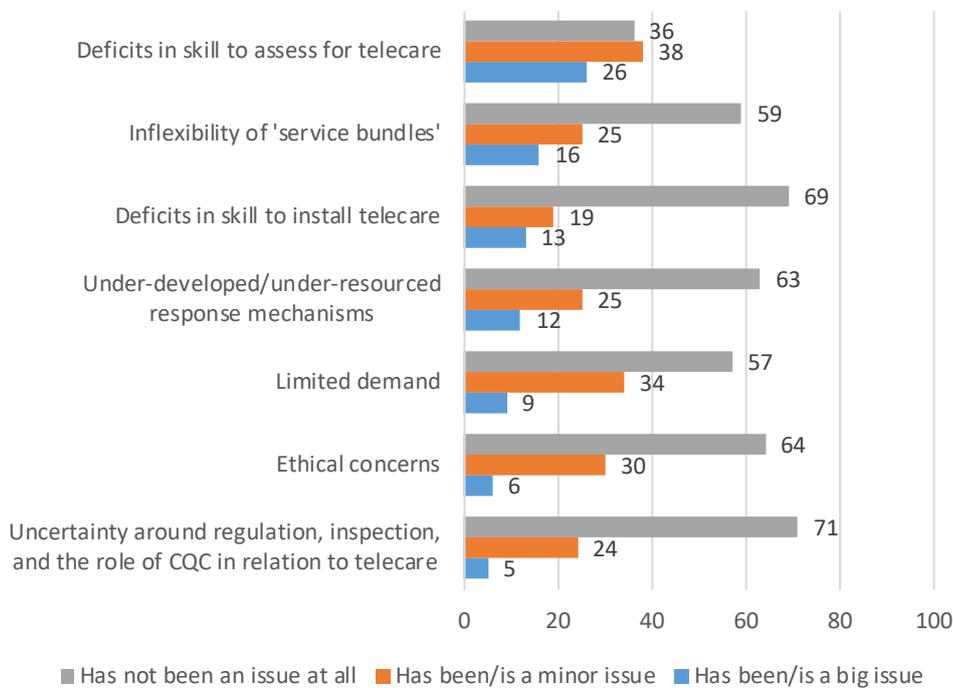
Telecare manager views were first sought about *the accessibility of telecare, the level of support available, the level of awareness of telecare and the level of knowledge or skill about how to use telecare amongst older telecare recipients and their relatives and unpaid carers* in their local authority. Though many felt that the accessibility of telecare and level of support available were good, the general level of awareness of telecare amongst service users/older people and carers in general, and their levels of knowledge, or ‘know-how’ about troubleshooting or maintaining devices was average or poor. One reason for the high percentage of low to average scores was that in many local authorities user and family carers did not require any real knowledge of what the device did or how it worked since all installation and servicing remained a local authority responsibility. However, some local authorities did indicate that they were actively considering passing responsibility for installations to older people or family members themselves which might have training and knowledge sharing implications.

Figure 13: Thinking of professionals or paid care workers, how significant have been the following issues in your local authority area?



Telecare leads were then asked about the salience of three issues amongst care workers and care professionals. These were *ethics*, *professional resistance* and *concerns about telecare use as a care substitute*. There was little reported concern about the ethical implications of using telecare, or professional resistance to its use, though there was a little more apparent unease about the potential of telecare to replace hands-on or face-to-face care.

Figure 14: Thinking of commissioners or senior managers in your local authority or independent sector organisation, to what extent have the following been issues that have been resolved or need to be resolved?



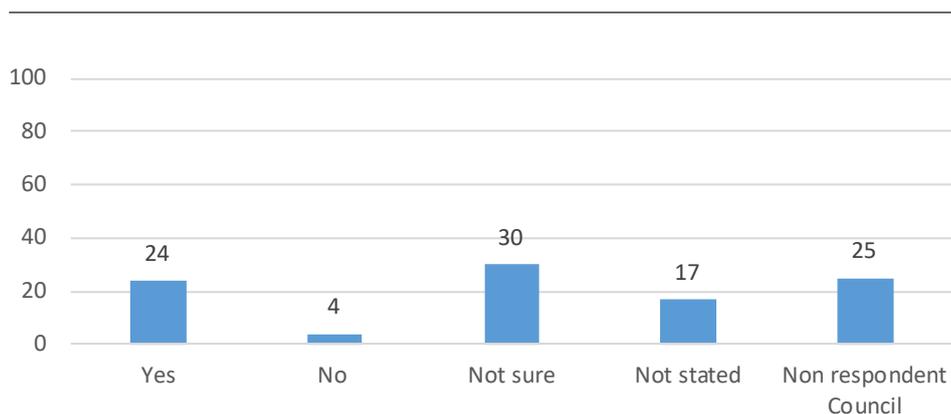
The final set of questions in this section sought telecare manager views about commissioner or senior manager perceptions concerning a range of matters which they would probably need to address. Described as being, or having been, the biggest issue was skill deficits amongst practitioners who carried out assessments for telecare. Inflexibility of service ‘bundles’ – essentially, restricted access to the widest possible range of devices – was next. Lack of demand, ethical concerns and regulatory uncertainty were not widely reported as ‘big issues’.

5. The level of financial commitment to developing telecare

The survey included four questions that focused on funding.

Telecare is widely regarded as a kind of service that can save local authorities money. Strategic and operational goals of preventing the need for other more expensive forms of care, and to manage risk, can also be linked to cost-saving. The survey therefore asked telecare managers if they felt that telecare saved their local authority money.

Figure 15: Does telecare save your adult social care department money? (n=152)



As figure 15 suggests, only a minority of respondents, representing just less than 25% of all local authorities in England, said that telecare saved money. A smaller number (4%) said it did not and the largest percentage - 30% - were not sure. Responses to a follow-up question: ‘If you answered ‘yes’ or ‘no’ to the previous question about telecare saving money, how do you know this?’ suggested that although many telecare lead managers were convinced it did save money, it was difficult to provide hard evidence to support this view. Respondents from a small number of local authorities said modelling had been done to explore this, and some used a system of data recording that included ‘hypothecated savings’ – the anticipated cost of using alternative services if telecare was not used. Two different experiences – one wanting data and the other from a local authority that had done extensive work illustrate the contrasts:

‘I feel that there has not been any work done around outcomes, reviewing and recording of the benefits of using telecare or other technologies if it was then it would provide the evidence not only how significant the service is to support a new way of working. It would give us an idea of the benefits of using technology to the service users, the professionals, the carers and all the organisations that use it’. [44]

'We have done extensive analysis and developed a cost savings calculation formula which demonstrated huge potential savings. This is being analysed further to test and although we know use of technology can save ASC budget it is not as extensive as we originally hoped. This is because customers are now requiring more support that runs alongside technology. The majority of savings through using technology are attributed to health'. [46]

Telecare managers were also asked 'Is your telecare service solely funded through your adult social care department or is there a contribution from other funding sources?' Of the 78 respondents who answered this question, 17 said their telecare services relied entirely on their local authority; 27 referred to using Better Care funding, 14 to NHS clinical commissioning group funding, and 14 also referred to charges to individual telecare users. Small numbers said they raised additional funding through charges to housing associations or that their service was funded entirely by telecare users, as illustrated by this respondent:

'The telecare service is currently self-funding, i.e. there is no funding from commissioners to pay for this service; it is funded entirely from the weekly payments the service users make. Commissioners are reviewing this model as when telecare is potentially replacing an element of a funded care package, there is an argument that this should come from a person's personal budget. This will form part of the telecare / assistive technology strategy moving forward'. [4]

The final 'finance' related question asked about spending targets.

Figure 16: Is there a specific spending target for telecare in your local authority? (n=152)

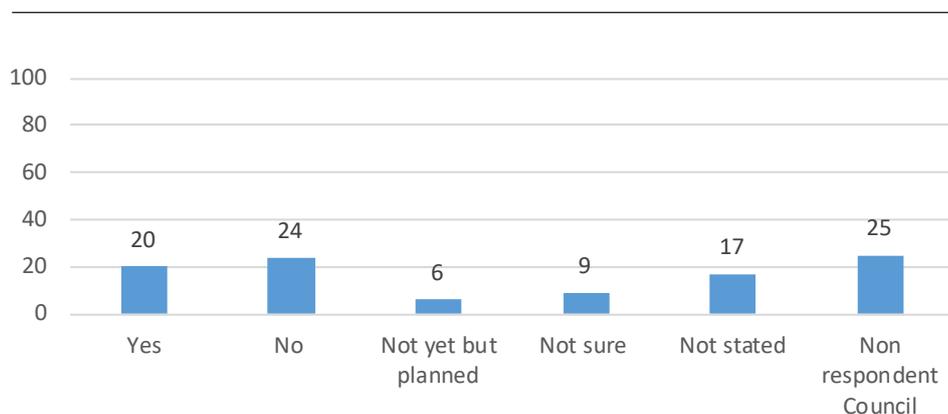
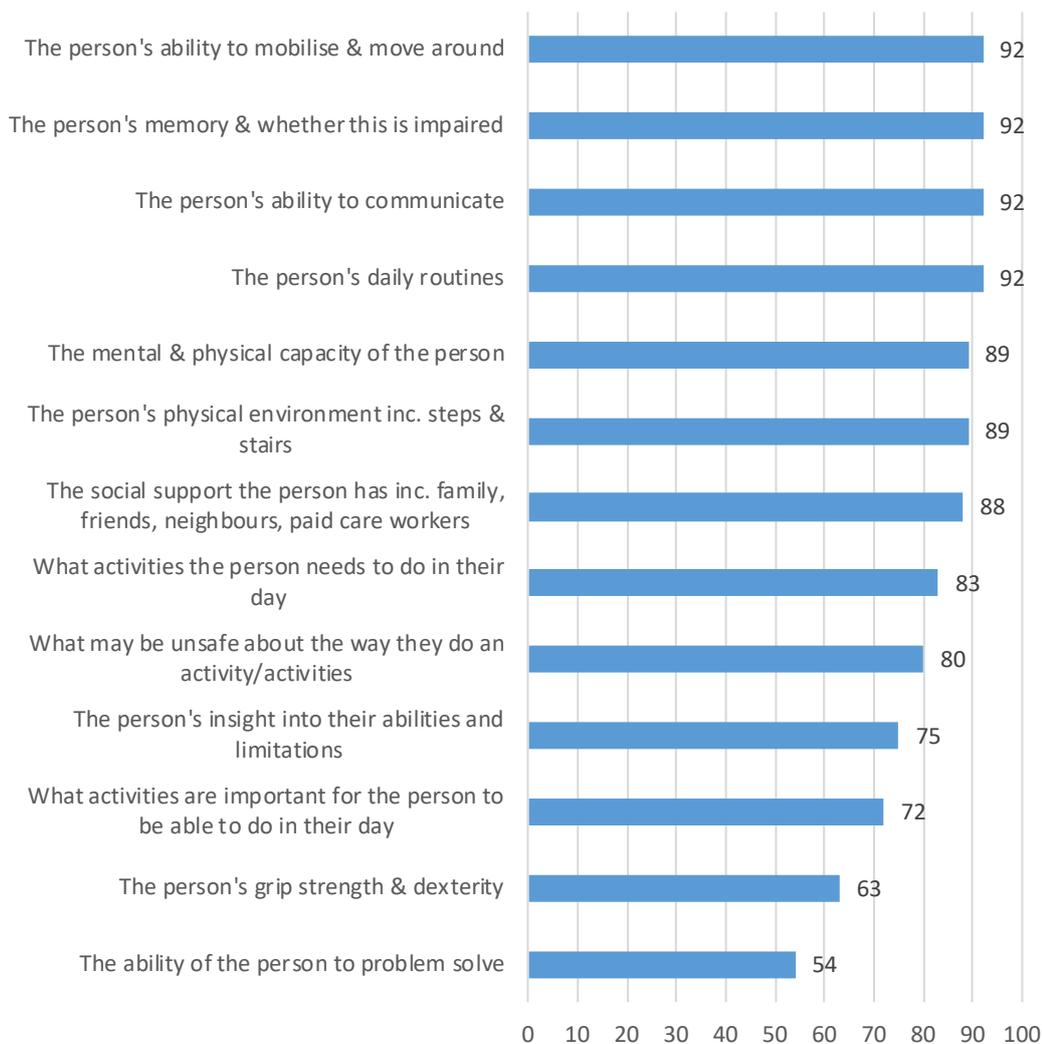


Figure 16 shows that a fifth (20%) of local authorities had a specific spending target and a further 6% were planning to introduce one. A quarter appeared to have no specific spending target and 9% were unsure. How these targets were calculated was not explored in this survey.

6. Assessing eligible people for telecare - what gets considered?

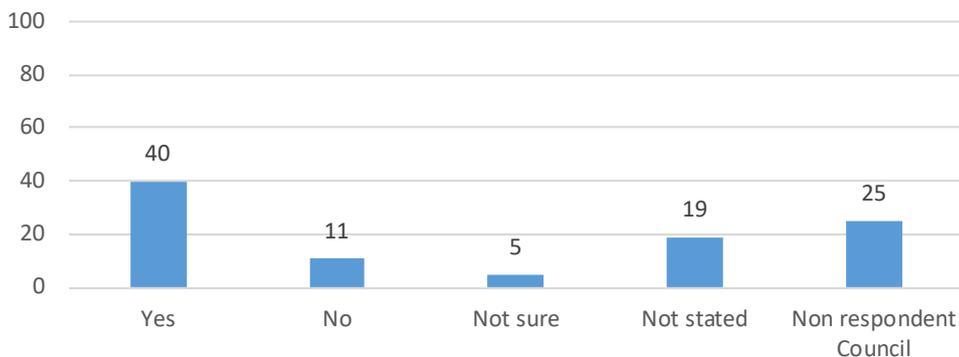
Figure 17 suggests that most survey respondents felt that the scope of the telecare assessment was fairly broad in their local authority.

Figure 17: What do you assess within your telecare assessment?



However, some aspects of a prospective telecare user's needs or situation seemed more likely to be included than others. Although mobility, cognitive capacity, ability to communicate, daily routines, mental and physical capacity, physical and social environment were taken into account in most assessments, the prospective telecare user's degree of insight into their abilities and limitations, the kinds of activities that were most important for them to do, their grip strength and manual dexterity, and their ability to problem solve were less likely to be considered.

Figure 18: Does the assessment focus on what it is hoped will be achieved by installing the technology? (n=152)

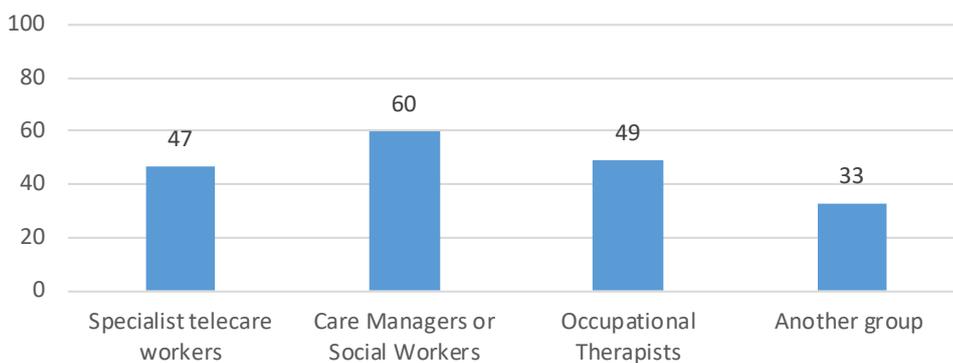


In the largest single percentage of responses, respondents confirmed that the assessment focused on what it was hoped telecare would achieve in their local authority. This variously referred to what it was hoped would be achieved for the individual telecare user, for family carers and for the local authority.

7. Assessing eligible older people for telecare – who assesses, and for what?

Figure 19 shows the different professional backgrounds from which telecare assessors were drawn. More than one 'option' could be included in the survey response and in many authorities more than one professional group assessed for telecare.

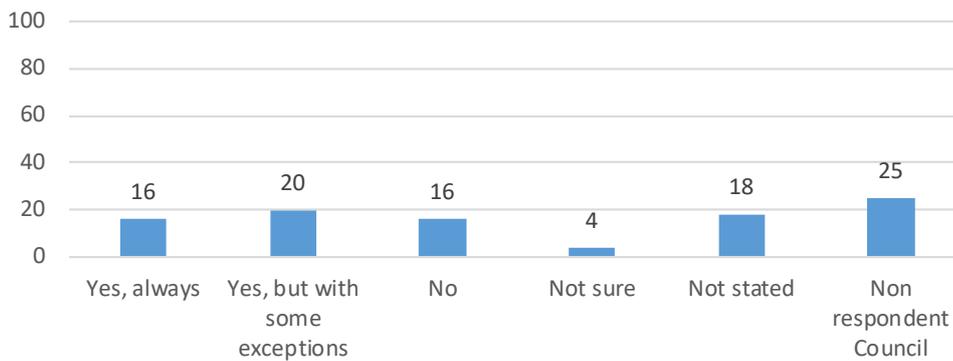
Figure 19: Who assesses older people for telecare?



Though the majority of assessors had a care management or social work background, occupational therapists and specialist telecare workers were often also recorded as being assessors. In some local authorities only one of these groups performed this role but in others more than one group assessed for telecare. Though these were the main groups of professionals who assessed, a wide range of staff from other backgrounds were also responsible for assessments in some local authorities. Opinions were divided as to whether specialist or non-specialist telecare assessor roles were most appropriate, with one respondent reporting a change of practice recently:

'We no longer have specialist telecare assessors. All professionals are trained to assess for telecare. We have a number of prevention assessors who assess for all direct services that can be switched on as part of the universal prevention offer'. [28]

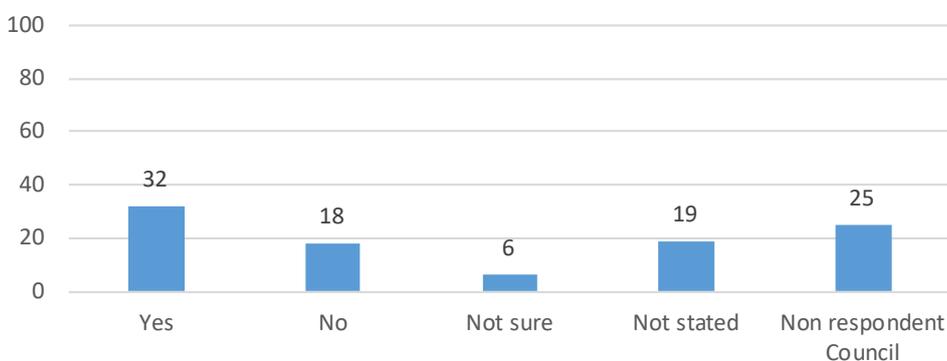
Figure 20: Is a formal assessment of need for telecare always done before telecare is provided? (n=152)



The survey also found that a formal assessment of need for telecare was 'always' carried out before telecare was provided in 16% of local authorities, and a further 20% of respondents felt that assessments were usually completed, though with some exceptions. These included situations in which telecare installation was needed rapidly: for example, to support safe hospital discharge. In these and other circumstances, assessments were reportedly subsequently completed. However, telecare managers from 16% of local authorities said that assessments were not done, and a further 4% were 'not sure'.

The survey also found that, in some local authorities, some kinds of telecare were available without the need for assessment, as can be seen in figure 21. These included a range of pendant and other personal alarms.

Figure 21: Are any kinds of telecare available from your adult social care department without the need for an assessment? (n=152)



By contrast, figure 22 also shows that some kinds of telecare were only provided after a formal assessment.

Figure 22: Are any kinds of telecare only available after a formal assessment of need? (n=152)

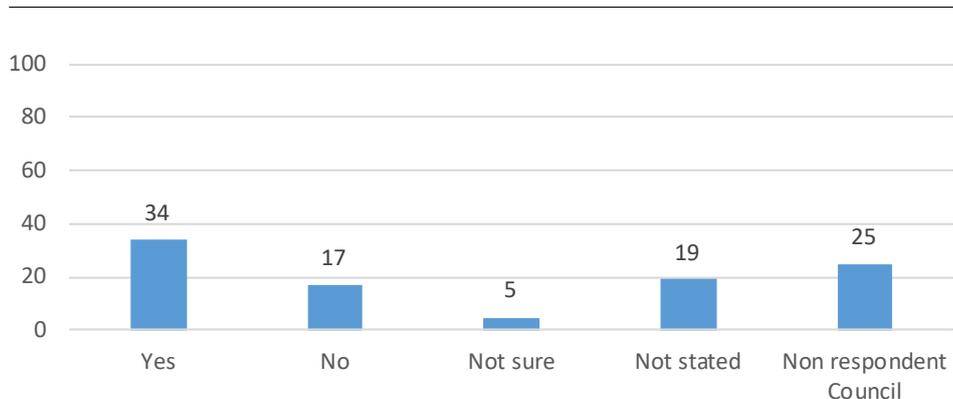
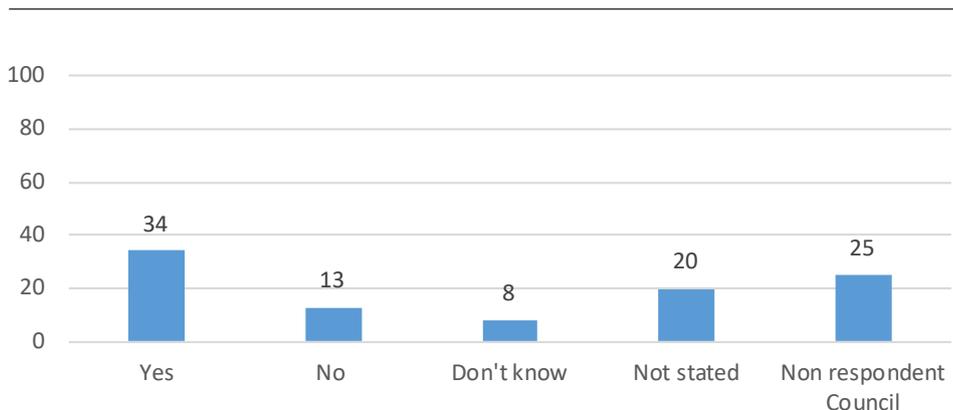


Figure 23 shows that in over a third (34%) of local authorities telecare was provided as part of a housing support package: for example, in ordinary and very sheltered housing.

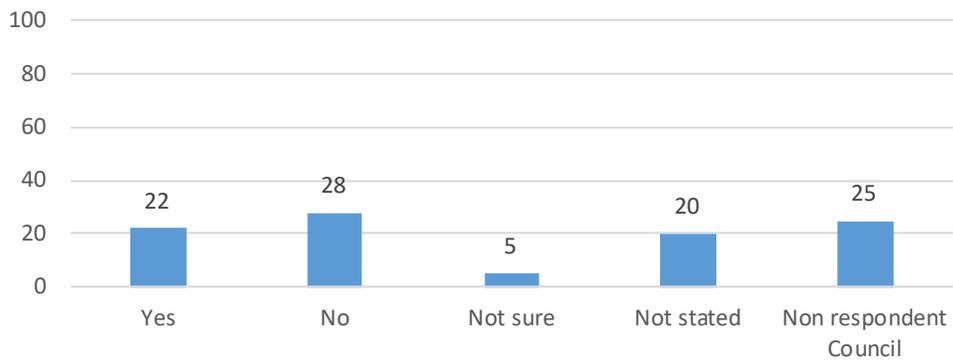
Figure 23: Is telecare provided as part of a housing support package without the need for an adult social care department assessment in your local authority area? (n=152)



The widespread use of personal budgets and Direct Payments (money provided to people eligible for help from adult social care departments enabling them to purchase aids and equipment as part of an agreed support plan) pose particular challenges for telecare services, since service user ‘customers’ may require information and support to exercise choice and, if purchasing telecare devices intended to be linked to a call centre, choice of device may be constrained by whether it can be configured to work with whatever call centre platform is being used. The survey included a few questions to provide some basic indications of how local authorities were responding to these challenges.

The first of these asked if people eligible for publically funded social care could self-assess for telecare. As can be seen in figure 24, just over a fifth (22%) of respondents confirmed this was possible in their local authority, but 28% said they could not. A further 5% were unsure and 20% of respondents did not answer this question.

Figure 24: Can eligible people self-assess for telecare? (n=152)



The percentage of local authorities in which people receiving a Direct Payment were reported to be able to spend part of it on telecare is presented in figure 25. Several (28%) of respondents said that in their local authority this was possible but 11% said it was not, with a further 15% being unsure.

Figure 25: Can people who have a Direct Payment spend part of it on telecare in your adult social care department? (n=152)

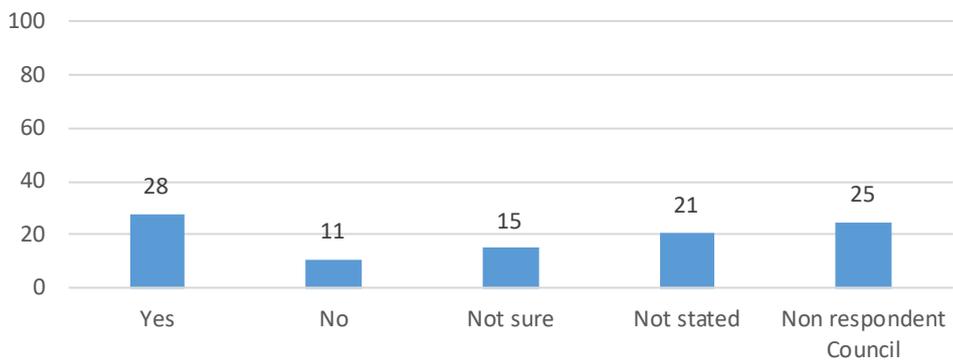
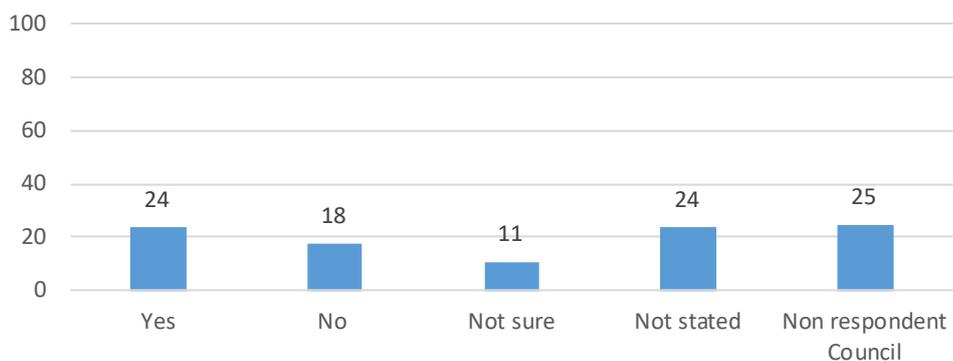


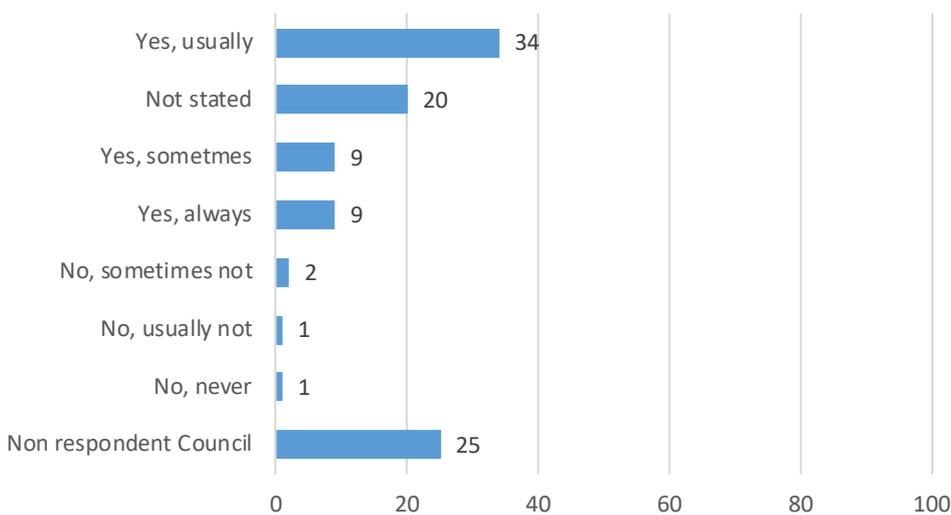
Figure 26: If people can spend Direct Payment money on telecare is your adult social care department able to offer or arrange advice to help them choose what to buy? (n=152)



The survey also asked if advice was available in those local authorities that said Direct Payments could be spent on telecare. Several (24%) said advice was on offer, 18% said it was not and 11% were unsure.

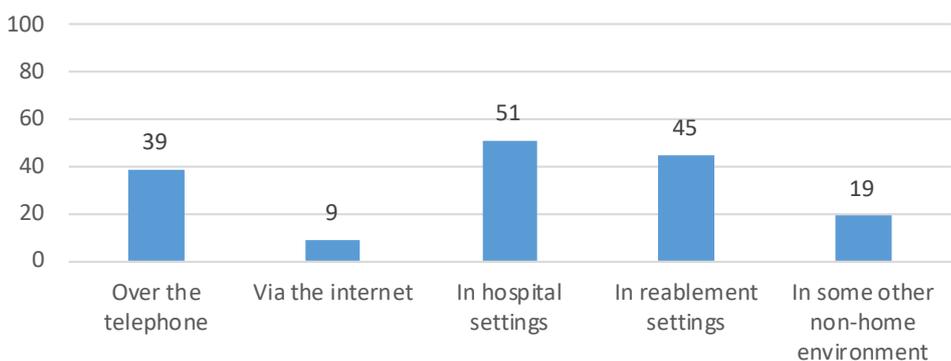
Figure 27 shows that only a minority of local authorities (9%) carried out assessments that included an opportunity to evaluate how the prospective user interacted with their home environment, though a further 34% said that this was usually the case. In 13% of local authorities, assessments were sometimes, or never, done in way that enabled the assessor to consider the person’s home environment. The survey also identified reasons not always conducting home-based assessments: reference has already been made to the need for telecare to be installed rapidly to help with safe hospital discharge.

Figure 27: Can assessors usually observe how the person interacts with their home environment? (n=152)



A further question asked if assessments were carried out in non-home environments. As can be seen in figure 28, hospital and reablement settings featured prominently in responses. Almost 40% of respondents also indicated that assessments might be done by telephone.

Figure 28: Are assessments ever done in any of the following non-home environments?



It could be argued that these findings raise questions about the quality of telecare assessments in some local authorities. However, telephone based assessments might be carried out for simple ‘stand-alone’ technologies - for example, calendar clocks - or some ‘plug and play’ devices such as pendant alarms. Some respondents also said that if assessments were initially done in service environments like hospitals these were often followed up with a home visit, as one respondent reported:

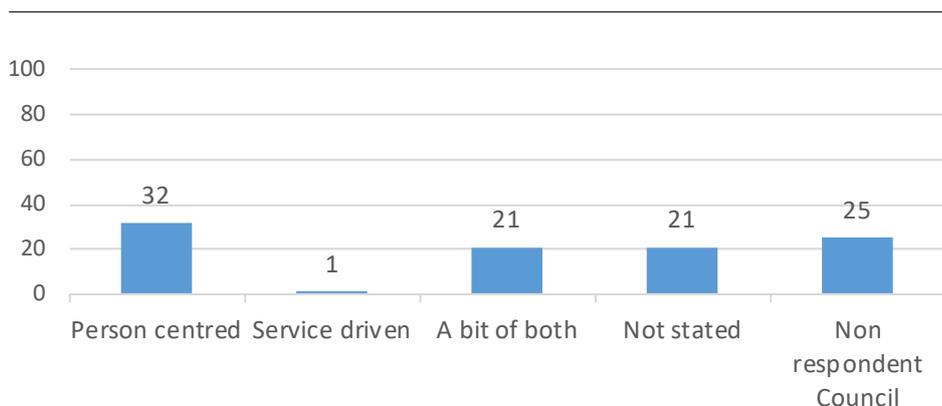
‘Any initial assessment carried out outside of the home receives a formal assessment at installation to ensure the equipment is appropriate and all needs of the client are met’. [3]

However, this was not always the case:

‘This is a problem, especially for hospital discharge - workers, including OTs are advising they no longer carry out home-visits, so telecare is prescribed blindly’. [11]

A final question in this section of the survey asked if telecare in local authorities was person-centred. Figure 29 shows that a very small percentage of respondents (1%) felt their telecare service was ‘service-driven’, but almost a third (32%) said it was ‘person-centred’. Over a fifth (21%) felt it was a ‘bit of both’. Over a fifth (21%) felt it was a ‘bit of both’.

Figure 29: In your opinion, is telecare in your adult social care department...? (n=152)



Those who said their telecare service was ‘person-centred’ focussed on assessment and tailored provision of telecare, and the absence of ‘standardised’ telecare packages. Services described as both person-centred and also service-driven were described as providing standardised packages for common situations (or ‘straightforward’ needs) and more ‘tailored’ packages for complex needs, as this respondent argued:

‘People need to engage in the use of it and we need to adapt it so it can be made easier to use for those who have limited understanding of technology. We don't want to alienate those who have limited understanding, or are afraid of technology: we need to make it uncomplicated. It needs to be part of everyday life and to fit in an individual's lifestyle. This is the only way it will be accepted and used effectively’. [40]

8. Assessing eligible people for telecare: reviews and the assessment tool

Two questions were included in this part of the survey. The first was an open question that asked *'Do you carry out reviews to check that telecare is working and meeting the needs for which it is intended?'*

This question was answered by 80 respondents. All but seven said that reviews were completed (those who said reviews were not completed qualified this by stating that they did not review devices purchased by the telecare recipient or their family, or that they did not review 'stand-alone' devices). In most places, initial reviews were usually completed after six weeks, generally because this time period was being used for other assessment or service transition purposes:

'A review of the telecare equipment is carried out throughout a reablement period (usually up to six weeks). If a person is being monitored via lifestyle monitoring there is ongoing reviews which take place monthly. Routinely the telecare service will visit customers to carry out well-being checks and review the equipment in place, depending upon the level of the package the customer is signed up for this can be quarterly throughout the year, monthly or bi monthly'. [24]

Others also referred to telecare services being incorporated into an annual review of care and support offered to service users funded by the local authority:

'The Service Provider is required to review telecare in accordance with TSA Standards. The Council is required to review a service user's care and support plan (which may include the provision of telecare in accordance with the Care Act 2014'. [30]

The second question sought information about the assessment 'tool' used and if it was 'validated'. (Outcome or psychometric scales are often formally validated to ensure that they actually measure what they intend to).

Figure 30: Do you know if your telecare assessment tool was ever formally checked or validated to make sure everyone interprets the questions in the same way? (n=152)

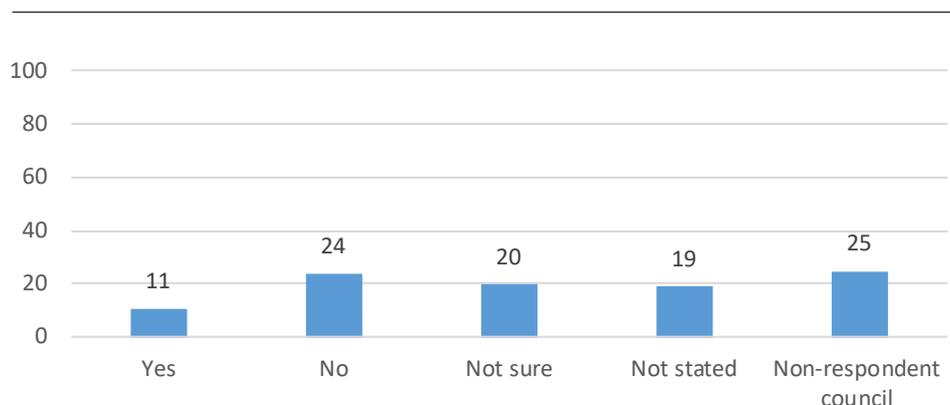
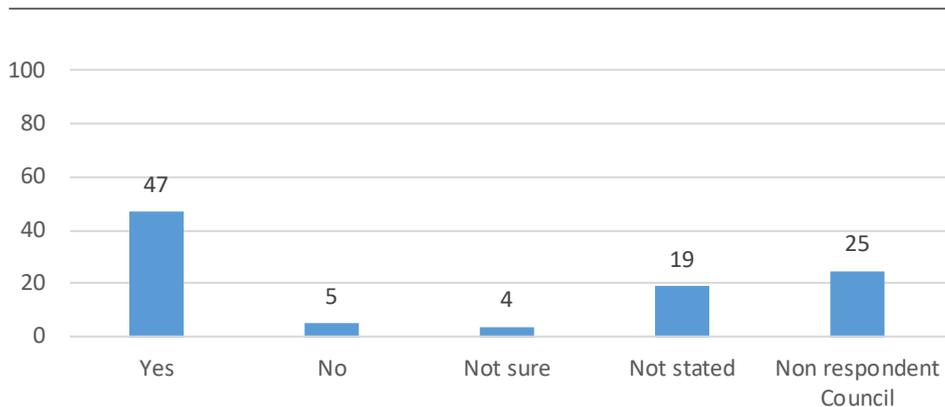


Figure 30 confirms that assessment tools were known to have been formally validated in just 11% of local authorities.

9. Training

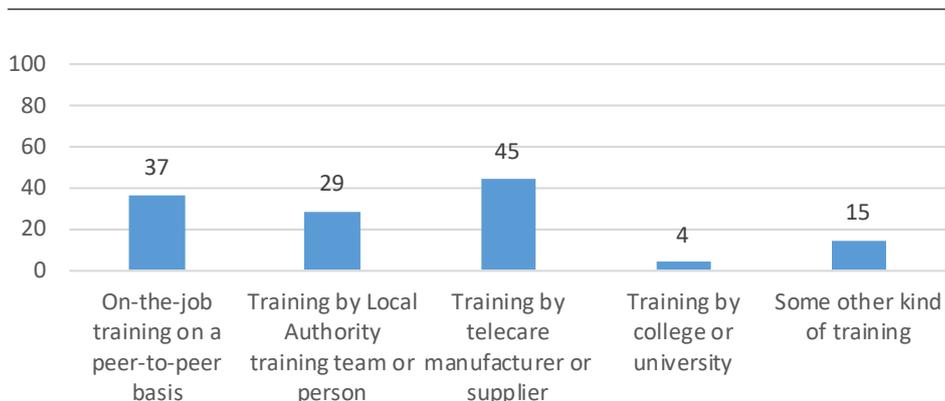
Most local authorities said that training was provided to people who conducted assessments for telecare, as can be seen in figure 31.

Figure 31: Is training provided for people who assess for telecare in your adult social care department? (n=152)



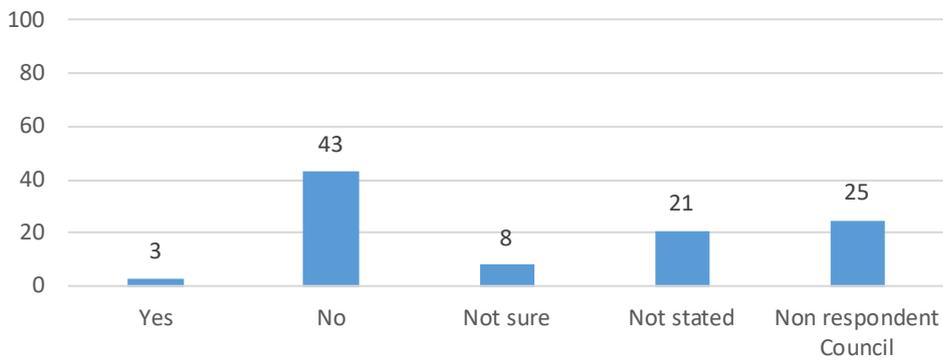
However, the nature and duration of this training varied. Figure 32 provides a breakdown of different ways in which training was available. The most frequently cited was that offered by a telecare manufacturer or supplier. It is therefore possible that at least some of this training was likely to be 'product' based: focussed on how a device worked rather than when it may or may not be suitable, within the context of a holistic assessment. 'On-the-job' training was the second most frequent type offered. Though this might offer a good practical grounding in telecare use, its effectiveness is likely to be dependent on the knowledge, skill and experience of the person delivering this training, and on the availability of time in busy operational settings to enable it to occur. A very small percentage of respondents reported that training was provided by a college or university.

Figure 32: Who provides training for telecare assessors?



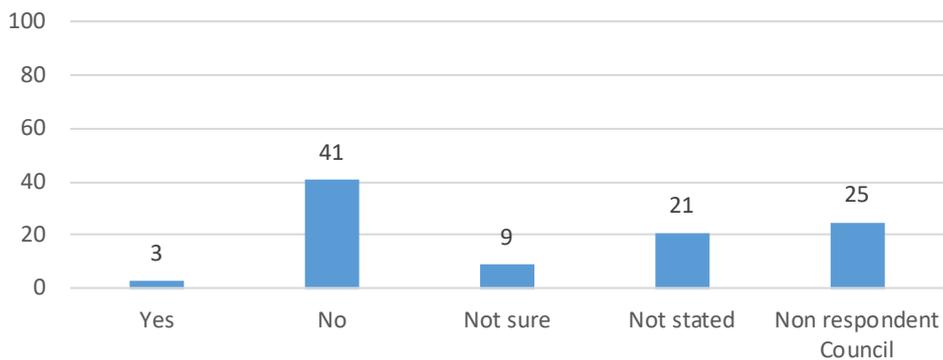
The percentage of training that was formally accredited by an external organisation such as a university was extremely small, as figure 33 confirms.

Figure 33: Is telecare training formally accredited (e.g. by a university or other external organisation) in your local authority? (n=152)



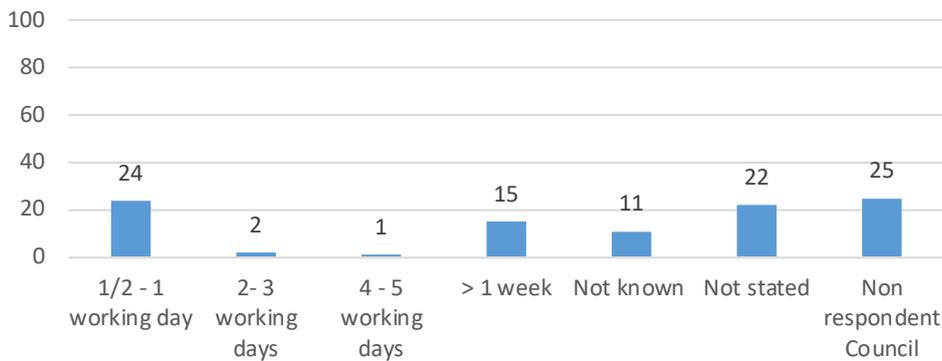
The same pattern also emerged from a further question asking if any telecare training could lead to a formal qualification. Figure 34 confirms that this was possible in only 3% of local authorities.

Figure 34: Can any telecare training available to staff in your local authority lead to a formal qualification of any kind? (n=152)



A final survey question was to find out about the duration of any training offered to telecare assessors. The distribution of responses is presented in figure 35.

Figure 35: How long does it take someone whose role will be to assess for telecare to complete any training in your local authority? (n=152)



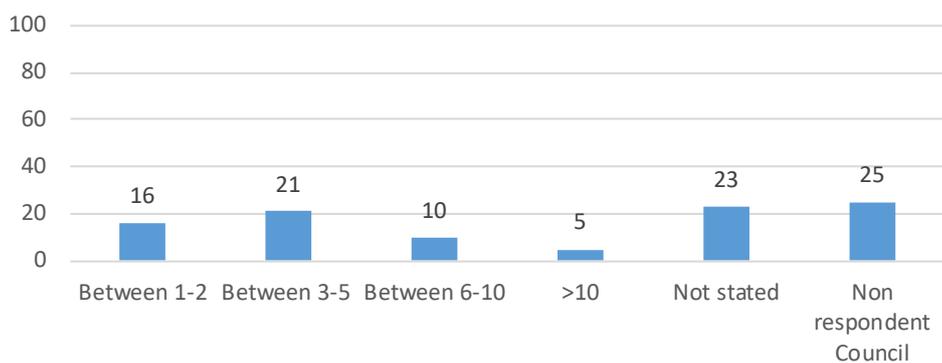
As can be seen, the majority of training was of extremely short duration, with almost a quarter (24%) confirming that it could be completed in between ½ and 1 working day.

10. What devices/forms of telecare are available for deployment?

The survey included a small number of questions on procurement and commissioning.

Figure 36 shows that the number of telecare manufacturers or suppliers from which telecare was procured tended to be fairly small, with almost 40% of local authorities obtaining telecare from between one and five suppliers.

Figure 36: How many suppliers does your adult social care department procure telecare equipment from? (n=152)



A further, 'open' survey question asked for information about the three main telecare suppliers used by local authorities. This confirmed that a small number of companies were dominant in the telecare marketplace, with one manufacturer in particular – Tunstall PLC - being by far more frequently used than others.

Figure 37: What are the five most commonly used kinds of electronic assistive technology or telecare for older people in your adult social care department?

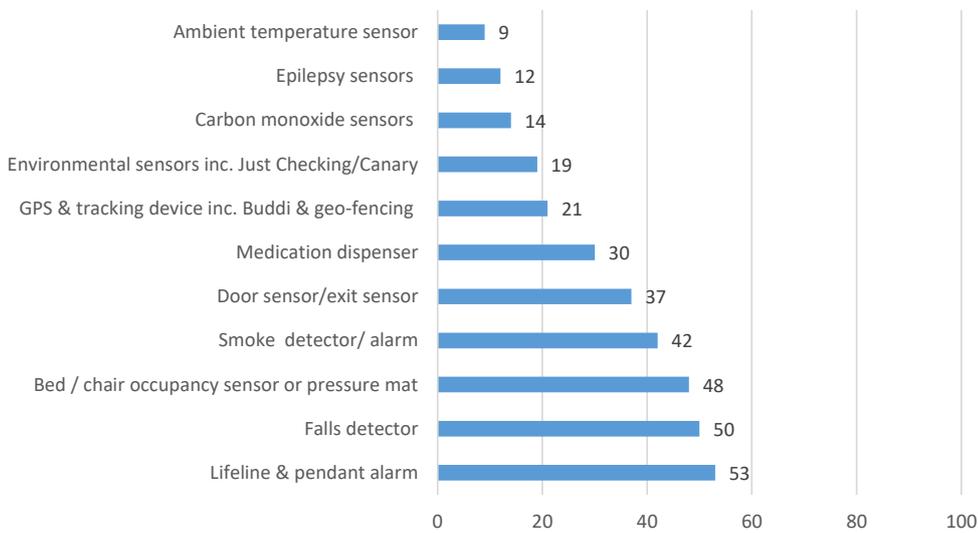


Figure 37 provides information about the five most commonly used kinds of device, suggesting that most of the technology supplied – for example, smoke and pendant alarms, was relatively easy to install. Less use appeared to be being made of devices that were less straightforward to install such as gas detectors, but as the data refers to the most common, rather than all, types, it is quite possible that these were also used, though less frequently.

11. Installation and maintenance

Following assessment, agreed or chosen telecare devices are installed. The survey included questions about who undertakes this process.

Figure 38: Which local partners, if any, provide elements of telecare service provision, and what do they contribute?

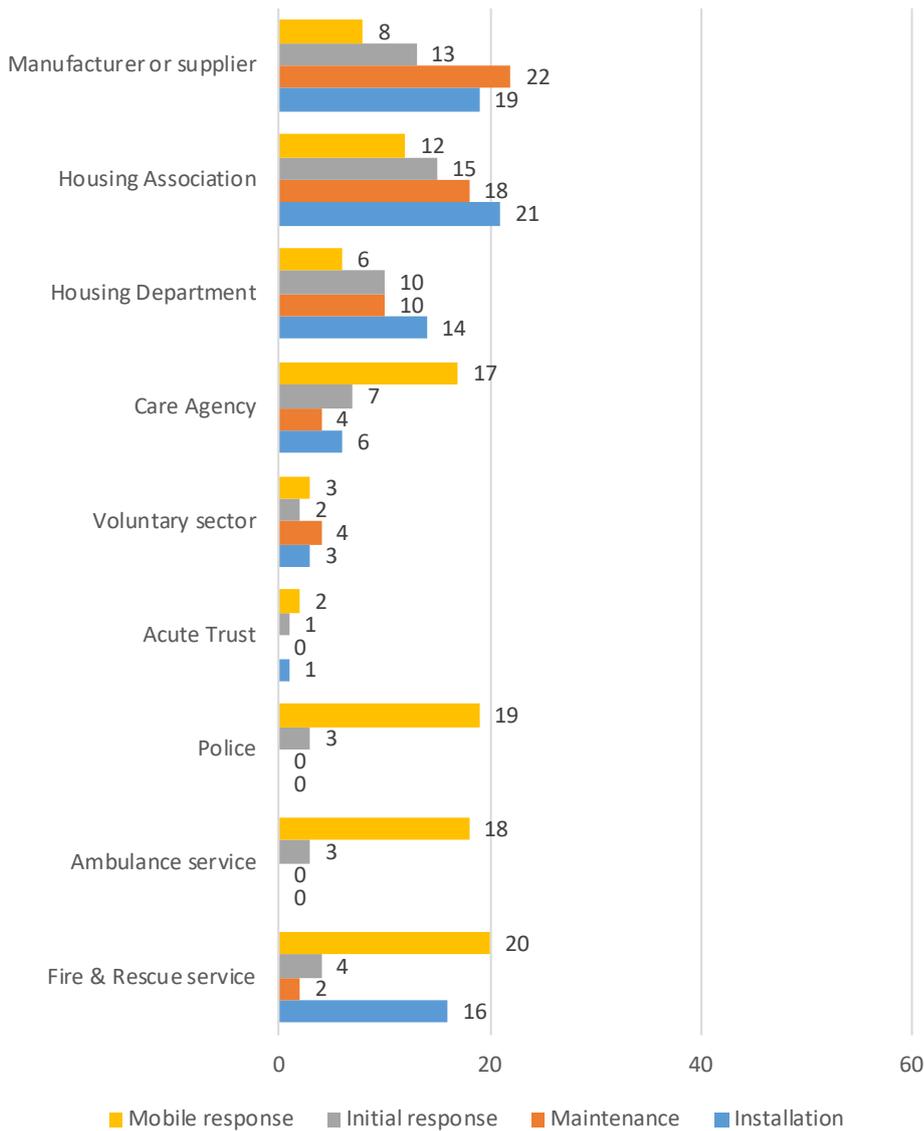


Figure 38 provides a breakdown of which local service providers were involved in installing, maintaining and responding to devices.

Installation of devices was most frequently carried out by housing associations (if housing departments are combined with housing associations they are far more likely to install). This is likely to be because in England early forms of assistive technology and telecare such as pendant alarms were provided and managed within housing authorities, rather than in social care settings. Because of this, it seems likely that these services are more likely to have employees with the necessary skills for installation. Manufacturers and

suppliers were the next most frequent group of installers; this seemed to reflect the contracting out of installation to manufacturers and suppliers in some local authorities. For some items, 16% of local authorities used fire and rescue services. This is likely to reflect the installation of a limited range of devices, predominantly smoke alarms.

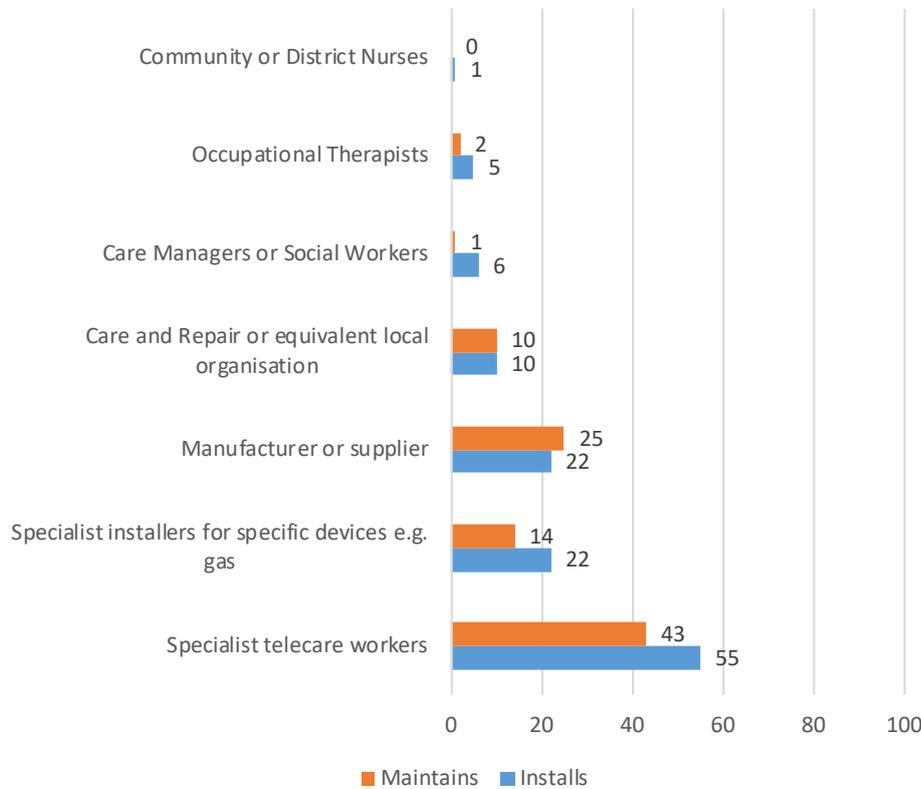
Post-installation maintenance was most frequently the responsibility of manufacturers or suppliers, followed by housing associations and local authority housing departments. Other local organisations seemed much less likely to be involved in maintaining telecare devices.

The initial response to alarm signals generated by telecare appeared to be more commonly located within housing associations, telecare manufacturers and suppliers and housing departments. This may reflect the location of call centres.

Finally, the mobile response refers to the visit made to the home of a person whose device may have generated an alarm signal. Emergency services were most frequently cited as ‘mobile responders’, followed by housing associations. The report will return to the topic of the mobile, or social response, below.

Though figure 38 provides a breakdown of role by employer, figure 39 provides information about which type of local professionals installed and maintained devices.

Figure 39: Who installs and maintains telecare and electronic assistive technology?



This confirms that specialist telecare workers were the most likely group of people to both install and maintain devices, followed by manufacturers and suppliers, and installers with specialist skills.

Figure 40: How frequently are installed devices checked?

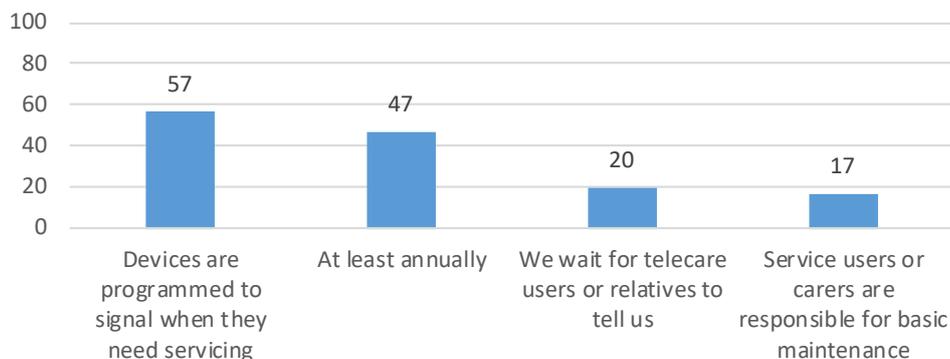
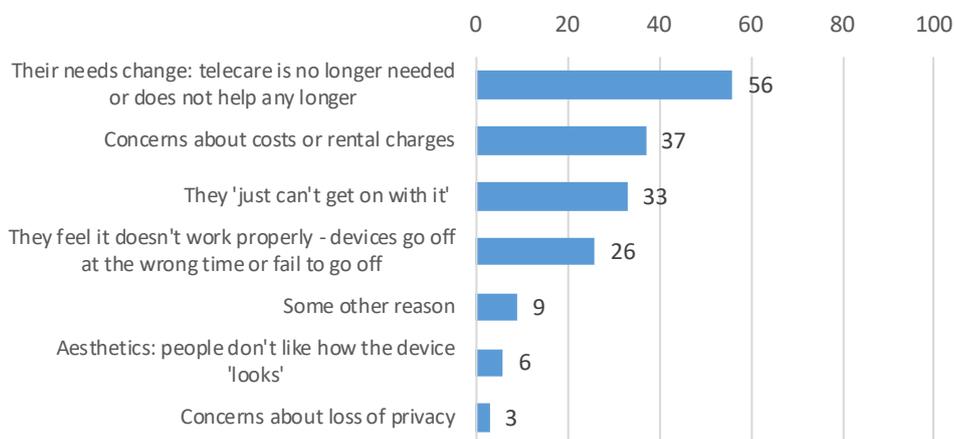


Figure 40 provides information about the frequency with which installed devices were checked or serviced. Over half (57%) of responses referred to devices that were programmed to signal automatically to a call centre if servicing or maintenance was needed and almost half (47%) reported that checks occurred at least annually. A fifth (20%) said that checks were dependent on telecare users reporting malfunctions and 17% said that telecare users or carers/relatives were responsible for basic maintenance (such as changing batteries).

The final question in this section of the survey asked why some people asked for telecare items or systems to be removed. The findings of the survey are presented in figure 41. Changes in need accounted for over half (56%) of removals, followed by concerns about costs or rental charges (many local authorities provided telecare at no charge for the first six weeks and introduced rental and other charges after this time; presumably as part of intermediate care or reablement services generally which have a similar threshold).

Figure 41: Why do people ask for telecare to be removed – apart from if people die or move into care? (Please indicate the three main reasons).

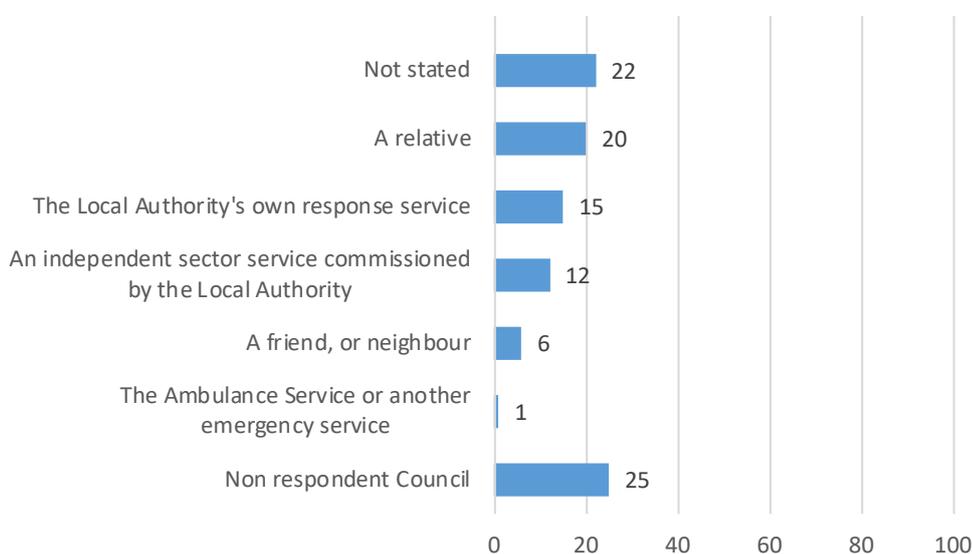


A third (33%) of removals were because the recipient was unable to ‘get on’ with the devices and just over a quarter said that removal was because the recipient did not feel the device worked properly. Both of these may indicate problems with the assessment for technology, the way it was installed, the reliability of the device itself; or simply personal preferences.

12. How is any response to information generated by telecare organised?

The final part of the survey focused on the way that responses to telecare alarms or warning signs were organised.

Figure 42: Who usually is the ‘first line’ responder if an alarm signal is generated at a call centre by telecare? (n=152)



The first question in this section enquired who would be the ‘first line responder’ to alarm signals sent to call centres. Relatives were the most frequently mentioned group of first-line responders, and if friends or neighbours are added, over a quarter (26%) of all first line responders were unpaid individuals.

A related question asked if the telecare service depended on unpaid responders, what would happen if no relatives, friends or neighbours could be identified. The responses are shown in figure 43. In 13% of local authorities, a telecare service would not be offered.

Further analysis of the data confirmed that Shire Counties that took part in the survey were less likely than other kinds of local authority to offer a paid-for response service, and more likely to not offer telecare if a family carer, friend or neighbour could not be found to perform this role.

The final few questions in this section explored data collection about telecare usage and the extent to which this appeared to be being used.

Figure 44: Does telecare in your adult social care department generate many false alarms? (n=152)

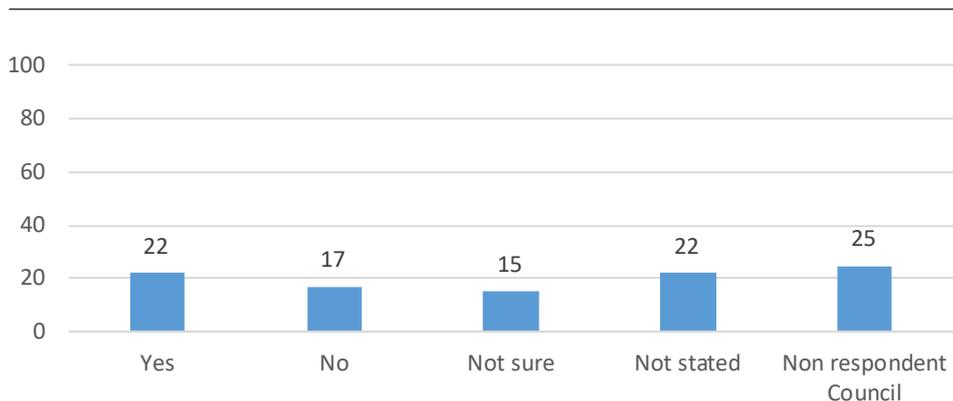
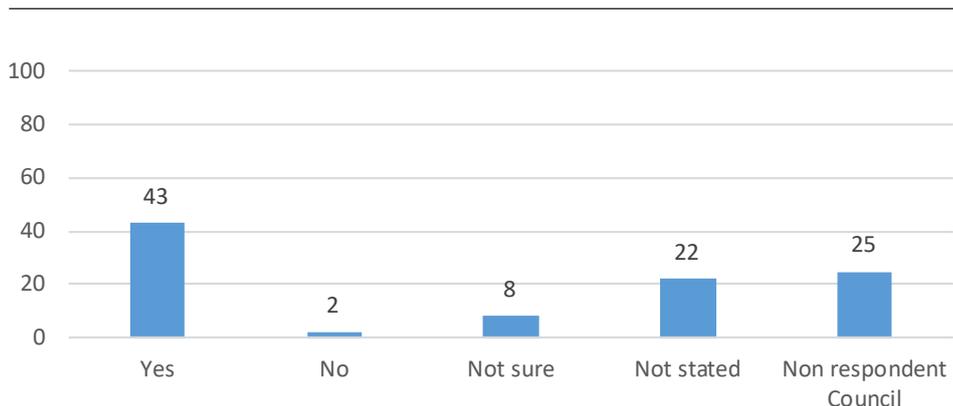


Figure 44 indicates that over a fifth (22%) of respondents felt that ‘many’ false alarms were generated by telecare devices (‘many’ was not defined). Though this finding may reflect shortcomings in decisions about which devices may have been deployed, or where they were sited, it also provided an opportunity to use alarm data to improve the service. Figure 45 confirms this was possible in 43% of local authorities: most of those that took part in the survey.

Figure 45: Are response generated alarms – whether real or false – always recorded? (n=152)



However, as figure 46 shows, 7% of local authority respondents said no use was made of this data and a further 15% were unsure if the data were examined.

4 | Emerging issues and possible ways to improve telecare services

This final section discusses the findings and suggests ways in which local authorities may improve their telecare services, or be satisfied that they are offering services that offer choice, control and may produce good outcomes. Though the high response rate to the survey means that the findings provide a good picture of telecare service provision at the time the survey took place, it should also be remembered that the levels of investment in technology, staff time devoted to telecare, and wider infrastructure of support for telecare work vary from local authority to authority.

1. Awareness and use of research evidence to support the way telecare is used

The extent to which research evidence is being used to support telecare development varies. In some local authorities there was clear awareness of large scale national studies besides the WSD: for example, the ACTIVE Consortium (2013), DALLAS (Innovate UK 2015), and ATTILA (Leroi et al., 2013) research. However, more emphasis was placed on locally commissioned and in-house evaluations and audits, with 11 (10%) of respondents stating that they had no awareness of research evidence at all. Additionally, only a small percentage of local authority respondents were able to say how the research studies with which they were familiar had helped support the way telecare was used.

There seemed to be widespread criticism of the WSD study amongst those who were aware of the findings of the telecare arm of that study (some respondents were aware of the study but either unfamiliar with, or had an erroneous view of these findings). Though many of these negative comments were based on a reasoned assessment of the limitations of the WSD, others were not. Some appeared to indicate a lack of understanding of how to critically appraise research evidence. The present survey may suggest that the widespread rejection and more occasional misinterpretation of the WSD findings, allied to the publication of alternative evidence from ADASS, as well as the telecare industry may have led to ‘the baby being thrown out with the bathwater’, to the extent that it may have discouraged a more critical examination of the impact and effectiveness of telecare. Though the WSD can be criticised for flaws in design and methodology, these do not invalidate its findings or justify its rejection. Evidence from this survey neither supports nor rejects the WSD findings, but does point to variation in practice which might affect telecare effectiveness and outcomes.

2. The strategic aim of telecare

The survey findings clearly suggest that telecare in most local authorities is intended to save money. Interest in telecare is likely to be directly related to continuing public sector austerity policies of the current and previous

Government but also to wider social change and affluence among many older people. This is not to say that using telecare to enable people to remain living independently, and safely, to prevent avoidable hospitalisation, to delay or prevent a move into care homes and to support family carers, are not worthwhile objectives. However, using telecare to manage demand for more expensive forms of care provision may also lead to a narrowing of focus which constrains potential uses of telecare in other areas of a recipient's life, for example, to address problems of loneliness amongst older people (Lund, et al., 2010, Windle, et al., 2011, Steptoe et al., 2012, Pols, 2012, Woolham, 2013), or to support/encourage people to use their time in ways they find meaningful and life-enhancing. The use of telecare to support carers is often something carers themselves are keen to adopt (Alaszewski and Cappello, op cit.) However, it can also potentially represent as a transfer of responsibility from the local authority to a private – and sometimes vulnerable – carer (Ferguson, 2007, Clarke et al., 2008, Daly, 2012).

One potential area of concern expressed by some is the use of telecare as a substitute for 'hands-on' social care, particularly home care (rather than using it to augment social care) (Marshall, 2000, Woolham, 2005, Woolham et al., 2006, Berge 2016). Almost half (47%) of respondents said their local authority was using telecare in this way. This may produce savings on hard pressed social care budgets, but more work may be needed to better understand both human and economic outcomes of using telecare in this way. Evidence from other studies (Woolham 2005) has suggested that savings may be made by telecare through delaying or avoiding a move to a care home or hospital. However, these are not necessarily 'cashable' savings: for example, demand for hospital beds is unlikely to diminish with growing numbers of very old (and therefore frail) people in the UK and Europe (OECD 2017), and any realisation of financial benefits will probably require improved strategic relationships between some NHS CCGs and local authorities.

Telecare has also been described as a 'complex innovation' (Sugarhood, 2014) that to work effectively requires collaboration from a range of different practitioners, sometimes working in different organisations. In only 24% of local authorities was the telecare strategy produced collaboratively with the NHS and/or other partners. This may make it harder for those local agencies without collaborative arrangements to realise the potential benefits – to each agency – of telecare.

3. Achieving strategic aims and monitoring of progress to achievement

Several codes of practice or practice guidance or telecare development support have been published over the last few years (Association of Directors of Adult Social Services, 2014, Fisk et al., 2013, Telecare Services Association 2013, Skills for Care 2011, 2014). Just over half of local authorities used Telecare Services Association (TSA) integrated Codes of Practice for 'Telecare and Telehealth'. These or other recognised codes of practice offer 'benchmark' standards against which local authorities can assess their performance and achievements. Though the survey did find evidence of internal monitoring, audit and evaluation, there was no evidence of local authorities adopting agreed and shared standards to appraise against, for comparison or benchmarking.

4. Telecare barriers and facilitators

The survey collected respondents' perception of barriers to and facilitators of telecare use amongst three stakeholder groups: older (actual and potential) users of telecare and family carers, front-line professionals, and commissioners and senior managers. Respondents considered that for telecare recipients and family carers, access to telecare and the level of support to users were now better than awareness amongst recipients or their families – i.e. the general public, but there were lower levels of prior knowledge or skill in adjusting or using installed devices. These may be things some local authorities need to address further. The knowledge and skill of users and carers may become a higher priority for local authorities that intend, or already, confer responsibility for basic servicing of devices to the recipient or their family. Though this may be consistent with strategic goals of promoting independence and autonomy, support may still be needed by those frail and vulnerable individuals who are not able to take on these responsibilities.

The second stakeholder group were front-line professionals. Ethical concerns, professional resistance and worries about telecare use as a care substitute were significant when telecare services were first introduced almost 20 years ago (Bjørneby et al., 1999, Marshall, op cit.) and continue to require a careful balancing of risk and control (Hamblin 2014). Respondents were asked about any concerns over ethical issues such as lack of privacy (identified as a major barrier in earlier telecare studies), professional resistance and potential loss of face-to-face care. Ethical concerns did not seem to be apparent. There was also evidence of good practice: the survey found responsibility for raising, discussing and resolving ethical dilemmas in telecare use were sometimes devolved to local care management or equivalent teams. Professional resistance and concerns about loss of face-to-face contact were not reported to be high in most local authorities although the survey was unable to explore this in depth. Possible explanations are greater awareness by front-line staff, greater confidence in telecare generally, and decisions by some local authorities not to use telecare as a direct substitute for face-to-face social care.

The final stakeholder group were senior managers and commissioners. The perspective of the local authority respondents of senior manager views was obtained on seven issues. None of these were described as being particularly 'major' issues in most local authorities. Two were noteworthy. Just over a quarter (26%) of respondents said that skill deficits in assessing for telecare had been or were a 'big issue' (the largest problematic issue) and 16% referred to 'inflexibility of service bundles'. The subject of telecare assessment and the purchase of equipment will be considered in more detail below.

5. The level of financial commitment to developing telecare

In the context of continuing public sector austerity policies, many local authorities are reported to have continued to invest heavily in telecare. (See for example, Valios, 2010; Bruce, 2010; Smith and Tomlinson 2013; Macbeath, 2013; and Sourcing Focus.com., 2014). Telecare may often be seen as an answer to the problems of rising demand and shrinking resources facing most local authorities. A critical question to ask therefore is whether the level of financial commitment made to it is justified, particularly as the WSD concluded that telecare was not cost-effective. The survey found that respondents from only 24% of local authorities said telecare saved money: most

were unsure. Though some local authorities had done financial modelling and some asked practitioners to provide information about what services might have been needed had telecare not been used, from which 'hypothecated savings' could be calculated, this remains a complex area and one that may require more attention from economists.

6. Assessing eligible older people for telecare

High quality telecare assessments, in which the needs and goals of the prospective telecare user are fully understood and carefully matched to available technology, are often seen as leading to successful telecare use (Wey, 2004, 2006, Greenhalgh et al., 2015).

The survey found that assessments appeared to be wide ranging in most local authorities. In most, a wide range of instrumental activities necessary for daily living were considered. However, only just over half said that the ability of the prospective telecare user to 'problem-solve' was assessed. This could be problematic in some contexts; for example, if the assessed person had very impaired cognition and was provided with user activated devices such as a pendant alarm as a standardised, preventive form of service.

There were also notable differences in approach between local authorities. Some deployed specialist telecare assessors, while others had integrated telecare assessments within general care management assessment, and others a mixture of the two. Each approach may have advantages and disadvantages. Specialists may be considered likely to have a good understanding of what a given device does or does not do, but may lack practice skills and knowledge possessed by social workers, care managers, occupational therapists or other care professionals. They may also create a situation in which operational teams may feel that telecare is the exclusive domain of the specialist and fail to understand its potential importance to their own work. By contrast, integration of telecare assessment in operational teams may potentially reduce delays for service and reduce administration, as well as integrating telecare with mainstream practice. However, practitioners may vary in their knowledge of telecare and overlook it as a means of addressing identified need, or, if referring on to an installer, 'over-prescribe' it without careful matching it to need: something that could be described as using telecare as both prophylactic and panacea.

The widespread use of Direct Payments and personal budgets creates a further set of challenges. Direct Payment users are able to buy whatever technology they wish with their budget (providing it can be demonstrated that it meets an agreed need in their support plan) but they will also need to decide on the basis of cost, quality, reliability, likely effectiveness, ease of use, and inter-operability (it cannot be assumed that all telecare devices can communicate with the call centre used by the local authority, for example). This reinforces an earlier observation about the need to invest time (possibly through third sector agencies) in providing accurate clear and simple information to enable informed choices to be made by some people who choose a Direct Payment and wish to consider using telecare.

Though, on the face of it, assessments seemed to cover a wide range of activities of daily living, the survey also found other areas of practice that may benefit from review or audit. Assessments were not always completed before telecare was provided, and often were completed in non-home environments. It has been argued that a high quality telecare assessment cannot be completed without a home visit (Sugarhood, 2014. Greenhalgh et al., op cit.)

Non-assessment before installation is likely to be for specific, legitimate reasons such as to support safe hospital discharge. Though post-hoc assessments may have subsequently been carried out, it has been noted elsewhere that a failure to involve telecare users and family members in decisions about what devices to install is a major contributory factor in their subsequent rejection of technology (Wherton and Monk 2007, Aktive Consortium 2013, Gramstad et al., 2014, Federici et al., 2016). Assessment in non-home environments is also potentially problematic because it does not enable the assessor to observe how the individual interacts with their home environment, which could lead to devices being inappropriately chosen or sited. It also prevents any consideration of whether there might be additional needs that could be met by assistive technologies and telecare. Finally, it may prevent any consideration of other matters. For example, a pendant alarm may trigger an alert that someone has fallen, but it will not prevent the fall occurring. Home visits offer opportunities to offer advice about trip hazards or other sometimes overlooked but easily remedied problems that carry risks: for example, the need for light bulbs to be replaced.

The survey also collected data on reasons for telecare service decommissioning. Some of these stated reasons suggest potential shortcomings in the assessment process through poor matching of telecare with need, and possibly low involvement by the telecare user in decisions about what to install, and/or a limited range of devices from which choices could be made. Audits in this area might be usefully considered on grounds of efficiencies within an authority, using peer reviews, or corporate internal audit.

7. The assessment tool

Only 11% of local authority respondents said that the assessment tool they used to match need to telecare had been formally checked and validated. Validation is a key part of the development of rating scales. This is because it is important that the scale accurately measures what it is supposed to measure. Tests are carried out to minimise ambiguity and ensure a common understanding of questions or terms used so the data that is collected is a measure of the same thing. Local authority assessment tools also need to offer the same degree of precision to minimise the possibility that needs are overlooked, and the level of need is accurately defined (ideally, for example, so two practitioners using the same tool with the same person would arrive at similar conclusions). No national standardised telecare assessment tool exists though there are a number of checklists and some practitioner guidance is available (The Alzheimer's Society (undated), Skills for Care 2014, The Association of Directors of Adult Social Services 2014b). Though it may prove impossible to develop a workable, standardised tool given the complexity of need and rapid technological development, there may be scope for local authorities to review the assessment tools they use and how well they match need to telecare.

8. Training

Training for telecare assessors was available in the majority of local authorities that took part in the survey, but was often of short duration (most frequently between half and one working day). This may have affected its quality. Training was most frequently provided by telecare manufacturers and suppliers: this is likely to be focused on technology and its functionality rather than ways in which older people interact with it. At worst, it might be

argued that some of this training is primarily marketing. Training provided by manufacturers has been described as problematic elsewhere (The AKTIVE Consortium: 2013).

The next most frequently mentioned training arrangement was on-the-job training on a peer-to-peer basis. Though this is more likely to consider human as well as technical issues, it is likely to depend on the level of knowledge of the person delivering the training as well as their ability to find time in a busy operational environment to deliver it. Very few (4%) of respondents said that their local authority supported training provided by a college or university and only 3% said that any training provided led to any kind of formal qualification.

The value of training seems related to the level of skill that telecare assessments are deemed to require. This report has already drawn attention to the finding that a substantial percentage of respondents felt that training was problematic in their local authority.

9. Devices and forms of telecare available

Person-centred telecare use requires that devices be carefully matched to assessed needs and this report has already highlighted a number of factors that will affect this. One of these is the availability of a sufficiently wide range of devices to achieve a good match. The relatively small number of suppliers from whom telecare devices were purchased by local authorities is likely to have restricted availability, and the market dominance of one manufacturer in particular has been noted. The report also found that the most commonly provided devices were relatively easy to issue or install – the two commonest being wearable (pendant alarms and fall detectors). These devices may or may not have had a significant impact on the ability of the recipient to continue to live independently but it seems reasonable to assume that there may be scope for deploying a wider range of devices in many local authorities than are currently used.

10. Installation and maintenance and response

Though in most local authorities, telecare strategies were not developed with other local agencies such as the NHS, a range of different local organisations was variously involved in installation, maintenance and the response to alarm signals. The percentage of local authorities that involved emergency services might be considered surprising, given the cost of deploying an emergency service, but in practice, Fire and Rescue services were in some local authorities responsible for providing and installing smoke alarms and were essential responders in the event of these being activated. Ambulance and Police services were also referred to as being involved in responding to alarms. The survey did not collect data on why they were involved. Housing departments, housing associations and manufacturers and suppliers were more likely than other groups to install and maintain devices. Irrespective of whether telecare assessments were completed by specialist or within operational teams, the main professional groups responsible for installation and maintenance were specialist telecare workers, followed by manufacturers and suppliers. Though most local authorities had arrangements in place to ensure periodic checks that equipment was still working properly, a fifth (20%) depended on the person or a family member to tell them if a device was faulty or needed servicing. 17% of local authorities also said that the telecare user or family members were responsible for basic maintenance.

The survey could not establish if there was scope to increase the number of telecare users or family members able to do this or if it might impose too great a demand on people who are not able to manage these tasks.

Though most local authorities said that they provided or commissioned a response service, 20% said they relied on a relative to be a first responder. Only a very small number of shire counties taking part in the survey offered a mobile response service and some said that if a family member could not be found to act as a responder, telecare would not be provided. Though it may be easier and less costly for unitary and metropolitan authorities to have a response service, the inability of shire counties to do so is notable and may be something that rural stakeholders would wish to explore.

Discussion points for telecare service practice and improvement

The main purpose of this report has been to describe current practice in the use of telecare for older people by local authorities. The main part of the report has simply presented and explained the findings, and the preceding discussion it has situated some of these findings within the context of other UK and European research. Given the evident strategic importance attached to telecare in many LAs, the findings of this study raise concerns about whether the systems around the implementation of telecare and AT are as robust as needed. Though local authorities may wish to draw their own conclusions and respond as they see fit to the findings, in the final few paragraphs, some broad suggestions about what may be important priority areas are offered.

Telecare as a substitute for social care

Provision of telecare to people otherwise ineligible for publicly funded care may be helpful, and can offer potential efficiency savings for local authorities by enabling people to avoid moving into care. Local authorities may also wish to consider estimating savings from telecare investment in respect of other local accounts, such as NHS expenditure on care and treatment for falls, as well as fire service savings. Telecare also offers potential efficiency savings for the NHS rather than local authority social care by helping to delay or prevent unplanned hospital admission and earlier discharge. Rather than each local authority taking on this task it may be appropriate for national overview such as work conducted by the National Audit Office or an overview from the Local Government Association with NHS England. Telecare manufacturers should not be considered appropriate organisations for such a review because of their vested interest in encouraging telecare use.

Strategic focus on risk management, safety and cost reduction

Though telecare use is focused largely on risk management and safety, and these are clearly important, these priorities only exploit a fraction of its potential benefit. Local authorities may wish to consider if telecare could be used to support other areas of an older person's life to help them maintain a good quality of life and enhancing outcomes in terms of social contact and meaningful use of leisure time. This potential could be placed on the agenda of bodies with funding such as the Centre for Ageing Better which has a remit to

explore 'what works'.

Impact on family members

The use of telecare to support for carers is part of its potential but it should decrease rather than increase the 'care burden'. Effective triage of alarm calls to call centres may help some carers from being overwhelmed. Where necessary, training to establish clear protocols to offer effective triage and clarity about the family carer role may be valuable. The involvement of older people and family carers as fully as possible in decisions about telecare may reduce the risks of technology being subsequently abandoned. The use of ASCOF or similar tools to consider outcomes for telecare may be a possible development.

Assessments

Local authorities may wish to audit the assessments of telecare assessors to see if they possess all the skills and experience they need to carry out effective assessments in which needs are accurately matched to devices. The deployment of telecare prior to assessment, and the completion of telecare assessments in places other than the older person's home may mean that some needs which could be met by technology are overlooked. Auditing of assessment timing and location could be part of quality assurance cycles. The careful matching of identified need to technology requires particular skills and more extensive training may be useful. Rigorous assessment requires a deep level of understanding, rather than 'recipe knowledge' in many cases.

Local authorities may also wish to audit the information and support provided to older self-funders and Direct Payment users to see if it is sufficient to enable informed choices to be made. Involving the voluntary sector in 'mystery shopping' exercises might be one way of connecting communities to this scrutiny. The survey finding that some local authorities do not permit telecare under Direct Payments should be investigated.

Devices

Local authorities may wish to consider if they have access to a sufficiently wide range of telecare and electronic assistive technology devices. Spot purchasing as well as preferred supplier arrangements may help. Comparison with neighbouring authorities may be one inexpensive method of doing so or discussion within Local Government Association or ADASS forums. An associated problem may be a shortage of 'objective' information about telecare devices. Any casual internet search will confirm the dominant role of manufacturer and supplier marketing.

Training

Local authorities may wish to consider if their level of investment in training - for assessors (previously mentioned), installers, call centre staff and paid responders - is sufficient, and whether quality assurance of training could be part of training commissioning processes.

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References

The AKTIVE Consortium 2013. The Role of Telecare in meeting the CareNeeds of Older People: themes, debates and perspectives in the literature on ageing and technology. AKTIVE Research Report Vol.1. University of Leeds and University of Oxford, Leeds.

Alaszewski, A. and Cappello, R. 2006. Piloting Telecare in Kent County Council: the key lessons. Final report - 2006. Centre for Health Services Studies, University of Kent, Canterbury.

The Alzheimer's Society (undated), Dementia Friendly Technology. 2. Dementia-friendly technology and service providers Available online at https://www.alzheimers.org.uk/info/20115/making_your_community_more_dementia-friendly/347/dementia_friendly_technology/2 accessed 13 October 2017.

The Association of Directors of Adult Social Services 2014a. Better Care Technology Survey 2014 Report. Association of Directors of Adult Social Services, London.

The Association of Directors of Adult Social Services , 2014b. Developing a series of metrics for telecare: improving quality and outcomes. Association of Directors of Adult Social Services, London.

Berge, M. S. 2016. Telecare acceptance as sticky entrapment: A realist review. *Gerontechnology*, 15, 2, 98–108.

Bjørneby, S., Topo, P. and Holthe, T. 1999. Technology, Ethics and Dementia: A guidebook on how to apply technology in dementia care. Norwegian Centre for Dementia Research, Oslo.

Bowes, A. and McColgan, G. 2006. Smart technology and community care for older people: Innovation in West Lothian, Scotland. Age Concern, Edinburgh.
Bruce, S. 2010. North Yorks spends £3.2m on telehealth. *Digital Health* Available online at <https://www.digitalhealth.net/2010/06/north-yorks-spends-3-2m-on-telehealth> [Accessed 9 October 2017].

Cahill, S., Begley, E., Faulkner, J. P. and Hagen, I. 2007. 'It gives me a sense of independence' Findings from Ireland on the use and usefulness of assistive technology for people with dementia. *Technology and Disability*, 19, 133–42.

Cahill, S., Macijauskiene, J., Nygård, A.-M., Faulkner, J.-P. and Hagen, I. 2007. Technology in dementia care. *Technology and Disability*, 19, 55–60.

Calder, C. 2006. Person centred approaches to using technology in practice

settings: the South Lanarkshire Dementia Technology Initiative. In J. Woolham (ed), *Assistive Technology in Dementia Care*. Hawker Publications, London, 28–33.

Clarke, J., Newman, J. and Westmarland, L. 2008. The Antagonisms of Choice: New Labour and the reform of public services. *Social Policy and Society*, 7, 2, 245–53.

Daly, G. 2012. Citizenship, choice and care: an examination of the promotion of choice in the provision of adult social care. *Research, Policy and Planning*, 29, 3, 179–89.

Federici, S., Meloni, F. and Borsci, S. 2016. The abandonment of assistive technology in Italy: a survey of National Health Service users. *European Journal of Physical and Rehabilitation Medicine*, 52, 4, 516–26.

Ferguson, I. 2007. Increasing User Choice or Privatizing Risk? The Antinomies of Personalization. *British Journal of Social Work*, 37, 3, 387–403.

Fisk, M. J. 2013. The need for a clearer European vision for telehealth. In M. Jordonova and F. Lievens (eds), *Global Telemedicine and eHealth Updates: Knowledge Resources*. International Society for Telemedicine & eHealth, Grimbergen, 66–71.

Gramstad, A., Storli, S. L. and Hamran, T. 2014. Older individuals' experiences during the assistive technology device service delivery process. *Scandinavian Journal of Occupational Therapy*, 21, 4, 305–12.

Greenhalgh, T., Procter, R., Wherton, J., Sugarhood, P., Hinder, S. and Rouncefield, M. 2015. What is quality in assisted living technology? The ARCHIE framework for effective telehealth and telecare services. *BMC Medicine*, 13, 1, 1–15.

Hamblin, K., *Aktive* working paper 6. Risk, Freedom and Control in Older People's lives: the relevance of telecare. 2014. *Aktive*, Oxford Institute of Population Ageing, Oxford.

Innovate UK 2015. Dallas - delivering assisted living lifestyles at scale: Join : Share : Inspire. Available online at <https://connect.innovateuk.org/web/dallas> [Accessed 18 June 2017].

Leroi, I., Woolham, J., Gathercole, R., Howard, R., Dunk, B., Fox, C., O'Brien, J., Bateman, A., Poland, F., Bentham, P., Burns, A., Davies, A., Forsyth, K., Gray, R., Knapp, M., Newman, S., McShane, R. and Ritchie, C. 2013. Does telecare prolong community living in dementia? A study protocol for a pragmatic, randomised controlled trial. *Trials*, 14, 1, 349 [online].

Lowe, C. 2013a. Is this the last time the flat earth society will be celebrating? (UK WSD). *Telehealth and Telecare Aware* Available online at <http://telecareaware.com/is-this-the-last-time-the-flat-earth-society-will-be-celebrating-uk-wsd/> [Accessed 11 October 2017].

Lowe, C. 2013b. Soapbox: Further thoughts on CarelineUK, O2 & WSD.

Telehealth and Telecare Aware Available online at <http://telecareaware.com/soapbox-further-thoughts-on-carelineuk-o2-wsd/> [Accessed 11 October 2017].

Lowe, C. 2013c. Telehealth Soapbox: Time to bid farewell to the WSD? *Telehealth and Telecare Aware* Available online at <http://telecareaware.com/telehealth-soapbox-time-to-bid-farewell-to-the-wsd/> [Accessed 11 October 2017].

Lund, R., Nilsson, C. J. and Avlund, K. 2010. Can the higher risk of disability onset among older people who live alone be alleviated by strong social relations? A longitudinal study of non-disabled men and women. *Age and Ageing*, 39, 3, 319–26.

MacBeath, I. 2013. Hertfordshire Telecare Service: Report of the Director Health and Community Services to the Health and Adult Care Cabinet Panel. Hertfordshire County Council, Hertford.

Marshall, M. (ed.) 2000. *ASTRID: a social & technological response to meeting the needs of individuals with dementia & their carers: a guide to using technology within dementia care*. Hawker Publications, London.

Mitchell, R. 1996. Mobile Emergency Care Dementia Project An Evaluation. Falkirk Social Services, Falkirk.

Netten, A., Jones, K., Knapp, M., Fernandez, J. L., Challis, D., Glendinning, C., Jacobs, S., Manthorpe, J., Moran, N., Stevens, M. and Wilberforce, M. 2012. Personalisation through Individual Budgets: Does It Work and for Whom? *British Journal of Social Work*, 42, 8, 1556–73.

OECD (Organisation for Economic Co-Operation and Development) 2017. Demographic References: Population age structure. OECD.Stat Available online at <http://stats.oecd.org/index.aspx?queryid=30130> [Accessed 11 October 2017].

Pols, J. 2012. *Care at a distance: on the closeness of technology*. Amsterdam University Press, Amsterdam.

Skills for Care 2013. Assisted Living Technology and Services: A learning development framework. Skills for Care, Leeds.

Skills for Care 2014. Commissioning Assisted Living Technologies: Guidance. Skills for Care, Leeds.

Smith, C. and Tomlinson, J. 2013. Birmingham's city-wide telehealthcare service: how the largest service of its kind in the UK is delivering better for less. *International Journal of Integrated Care*, 13, 7, 1–2.

Social Care Institute for Excellence (SCIE) 2013. Fair Access to Care Services (FACS): prioritising eligibility for care and support. Guide 33. Social Care Institute for Excellence, London.

Sourcingfocus.com 2014. Hampshire County Council looks to increase telecare investment. Available online at <http://www.sourcingfocus.com/site/newsitem/8256/> [Accessed 11 July 2017].

Step toe, A., Shankar, A., Demakakos, P. and Wardle, J. 2013. Social isolation, loneliness, and all-cause mortality in older men and women. *Proceedings of the National Academy of Sciences*, **110**, 15, 5797–5801.

Steventon, A., Bardsley, M., Billings, J., Dixon, J., Doll, H., Beynon, M., Hirani, S., Cartwright, M., Rixon, L., Knapp, M., Henderson, C., Rogers, A., Hendy, J., Fitzpatrick, R. and Newman, S. 2013. Effect of telecare on use of health and social care services: findings from the Whole Systems Demonstrator cluster randomised trial. *Age and Ageing*, **42**, 4, 501–8.

Sugarhood, P., Wherton, J., Procter, R., Hinder, S. and Greenhalgh, T. 2014. Technology as system innovation: a key informant interview study of the application of the diffusion of innovation model to telecare. *Disability and Rehabilitation: Assistive Technology*, **9**, 1, 79–87.

Tunstall Healthcare Limited 2009. North Yorkshire County Council - Innovation, Choice and Control. North Yorkshire County Council, Northallerton.

Valios, N. 2010. Good Practice: North Yorkshire telecare/assistive technology. *Community Care* Available online at <http://www.communitycare.co.uk/2010/02/25/good-practice-north-yorkshire-telecareassistive-technology/> [Accessed 9 October 2017].

Wey, S. 2004. One Size Does Not Fit All: Person-centred Approaches to the Use of Assistive Technology. In M. Marshall (ed.), *Perspectives on Rehabilitation and Dementia*. Jessica Kingsley, London, 202–10.

Wey, S. 2006. 'Working in The Zone' - A Social-Ecological framework for dementia rehabilitation. In J. Woolham (ed.), *Assistive Technology in Dementia Care: Developing the Role of Technology in the Care and Rehabilitation of People with Dementia: Current Trends and Perspectives*. Hawker Publications, London, 85–103.

Wherton, J. P. and Monk, A. F. 2008. Technological opportunities for supporting people with dementia who are living at home. *International Journal of Human-Computer Studies*, **66**, 8, 571–86.

Windle, K., Francis, J. and Coomber, C. 2011. Preventing loneliness and social isolation: interventions and outcomes. Research Briefing 39. Social Care Institute for Excellence, London.

Woolham, J., Gibson, G., and Clarke, P., (2006) Assistive Technology, Telecare, and Dementia: Some Implications of Current Policies and Guidance. *Research Policy and Planning* **24** (3): 149-164

Woolham, J. 2005. *The effectiveness of assistive technology in supporting the independence of people with dementia: the Safe at Home project*. Hawker Publications, London.

Woolham, J., Daly, G. and Hughes, E. 2013. Loneliness amongst older people: findings from a survey in Coventry, UK. *Quality in Ageing and Older Adults*, **14**, 3, 192–204.

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