Housing LIN
Connecting people, ideas and resources

Revolutionising housing with care with life enhancing technologies
Some questions and answers for the southern Housing LIN conference
20 October 2015, Bristol

This paper provides essential "did you know?" questions and answers for housing providers, commissioners and managers of adult social care when it comes to considering the best use of technology enabled care, as we enter the digital world.

It is divided into 6 sections

A) Funding – how can telecare be funded
B) Specific applications – can technology support cooking or medication
C) Links to housing strategy – how does technology support business objectives
D) Attitudes to technology – how can we overcome fears around social isolation
E) Infrastructure / models – what do we need to know about moving to IP/Digital
F) Awareness – how to engage the whole community

A	FUNDING
1.	**Does telecare come under aids and adaptations budget?**
	According to the Department of Communities and Local Government (DCLG, 2006. P6) *"the purpose of an adaptation is to modify disabling environments in order to restore or enable independent living, privacy, confidence and dignity for individuals and their families."* For example, this can involve the fitting of an additional rail to help climb the stairs, installing a stair lift or the replacement of a bath with a level access shower. Aids generally include door entry systems, environmental controls, and alarms, so within the ethos of 'offering everyone the opportunity of a decent home' and 'improving people's health and well-being' then yes, telecare could be covered but this will be dependent on the local organisation's policy.
2.	**How is it funded?**
	Telecare is funded in several ways – whether a home-owner or tenant, through the local authority means tested eligibility criteria, funded by the individual themselves or their families and informal carers, part funded through the council or housing association, and sometimes through various grant making charities.
	How you pay for technology comes back to what's seen as support, care or as part of the infrastructure. The *I'm OK* facility has attracted housing benefit. Reporting faults through to the service centre forms part of the infrastructure and again could attract housing benefit. In addition, new local funding streams are now in place, eg BCF (Better Care Fund) overseen by councils and CCGs (Clinical Commissioning Groups) – people in care homes and sheltered accommodation are being seen are big users of A&E and avoidable hospital stays. In some areas, the NHS is looking to fund the technology in schemes to prevent admissions.

3.	**Can it be funded via a Personal Budget?**
	Yes, telecare can be funded via a personal budget Personal budgets are also being introduced by the NHS (see overview [here](#))
4.	**Telecare/Telehealth needs to be mainstream before it becomes financially viable is this likely to happen in the near future?**
	There are a full range of solutions available, from apps which are free to download, and low cost equipment such as dementia clocks to very expensive telehealth/t elevideo applications. There are various differences of maturity between these different solutions ranging from 1.7m telecare users in UK to much lower numbers of telehealth users with clinical support. At the end of the day, you need to take into account the cost of the overall service (from assessment, referral, installation, service, monitoring, response, evaluation) and when this is approached at scale the economies really do come into their own. Buying individual ad hoc products and services from different organisations (eg service from one place, monitoring from another, response from another) could make it a costly exercise. The strategy for your service should be to look at the 'end-to-end' service and work out the delivery model that is the most cost effective for your organisation. Advice can be sought from providers.
B	**SPECIFIC APPLICATIONS**
1.	**What options are there for prompting with medication?**
	It is essential to get medication doses and times right because getting them wrong can affect health and wellbeing Medication management can be carried out in a number of ways – through medication dispenser stand alone or monitored. The latter provides prompts and when medication isn't taken a call will be made by the telecare monitoring centre. Reminder functionality via the lifeline home unit can be easily set up also
2.	**Cooking and making meals is an important part of daily living activities**, **would technology to support safer cooking be useful to support independent living and is there a use for it?**
	Apps or Skype which enable individuals to be supported during the cooking process may be appropriate for some people. Smoke detectors, temperature extremes sensors and Gas alarms (or gas shut off valves) can be linked to Telecare alarm systems. These may be appropriate for individuals who live on their own and may not remember what the alarm is for if it goes off. Also intelligent cookers are available which can minimize risk by detecting that the cooker hob is on but no pan, so will turn itself off. You can set time periods for cooking, also devices such as cooker guard which detects heat and can turn the cooker off and raise an alarm before there is any risk of a fire!

C	LINKING TO HOUSING STRATEGY
1	**What is the offer for Older People in relation to technology support?**
	If you are reviewing your Older People's (OP) strategy, it is important to ask yourself how can technology maximise your housing with care/support offer, in terms of a) **Productivity** - Staff can be deployed effectively, make good use of their time and feel empowered to better support the people they support b) **Efficiency** - People can self-manage and health/care/support issues can be detected early, reducing admissions to hospital/care home or increased care packages and carer stress c) **Outcomes** - People can enjoy a greater quality of life, with increased independence and wellbeing, feel more in control and offer peace of mind People are living for longer, with healthcare complexity associated with multiple long-term conditions, including frailty. By implication your services will be supporting people who are very much frailer and still living at home compared to 10 years ago. By 2020 – nearly 100,000 more people need to be cared for at home. "Disability Free Life Expectancy" is only 10 years for men. So what do homes of the future need to include, either physically or in terms of additional attractive service offerings? Adult social care commissioners and managers will have a vested interest also in supporting people to live at home for as long as possible, to avoid fully funded residential care admissions. For social landlords, the key is to know more about your residents and their changing needs. Age is no longer a defining factor. Understanding what technology is available now and in the future is key when looking at your OP strategy.
3.	**How does technology meet my business objectives?**
	The first question to clarify is what are your business objectives and what is the problem you're really seeking to solve? Do they include things like • The need to provide more **proactive, preventive services** such as remote online consultations, medication support, "I'm ok" services, activities of daily living support • The need to provide **social activities**, befriending and digital inclusion support • The need to provide homes that age with you, meeting the lifetime and lifestyles choices that people aspire to • The need to **report repairs and maintenance** issues via an easy to use tablet or app • Do your objectives also include **social values** such as reducing fuel poverty, creating resilient communities? All these things are possible with new digital technology. The value of digital inclusion and access to the internet has been estimated at over £2,400 a year for an adult (Health Impacts of Community Investment HACT May 2015)

D	ATTITUDES TO TECHNOLOGY
1	**Social workers are risk averse when it comes to telecare/Telehealth, how can we overcome this?**
	The main issue is creating confidence in the technology. When colleagues start using it, we find it really motivates staff as they see a real positive impact on people's lives. Currently formal care is targeted to specific time points in the day. Telecare provides a 24 hrs a day/7 days a week safeguarding service and scarce resource of domiciliary care can be targeted where the need is greatest. This way, we are utilising care services uniquely to do the things they can uniquely do, but in the meantime, with the knowledge that support is on hand 24 hrs a day. Seeing is believing and examples of real life stories really are the key. So don't talk about the technology, talk about the outcome it delivers for people. For example, privacy and dignity enhanced for man with learning and physical disabilities. *Mr A is 26 has a tendency to self-harm upon waking and as a result a dedicated team were monitoring his wellbeing through various systems as he slept. The introduction of telecare has enabled the team to reduce the amount of monitoring as staff are now alerted when Mr A sits up in bed. His privacy and dignity has been enhanced without compromising his safety.*
2.	**Does telecare increase social isolation?**
	What telecare does is gives communities and people more control – this is about increasing choice, with support targeted where and when it is needed the most with a 24 hrs a day back up service. So no, this is a complimentary (not a replacement) to other services which may or may not be available or appropriate. The difference is that someone will be there for you 24 hrs a day. Potentially care provided before was targeted at a specific time period during the day and rest of the day a person may be exposed to any type of risk. Now with digital technology, online services such as skype, messaging, online chat rooms etc increase the opportunity to interact with others who may be many miles away. Technological solutions are not about replacing human contact or restricting independence. Technology is about helping the person maintain independence, choice and self-determination so they can live life to the full.
3.	**My mum is scared of technology – how do we overcome that?**
	The way to describe it, is not as technology, but by the outcomes and benefits it provides. For example: • *John's dementia means he can no longer walk the dog – now John is able to continue to walk the dog and if he gets lost or comes into difficulties, we are able to talk to John, and find him easily* • *After Mum's fall I'm worried she may have to go into a home – now Mum is able to stay in her own home, as her confidence has grown and we will know immediately if mum has fallen and help is provided straight away*

	It also supports carers and family members really well so tell mum about how it's not just helping her, but it's also helping you.

Videos, a bank of stories, face to face discussions, workshops, meetings etc all need to be considered when describing the benefits. |
| 4. | **Social isolation – isn't there is a risk that people are only living their lives and interacting through a screen?** |
| | Services which drive efficiencies should create time for more meaningful interaction with people and create time to interact with people face to face. A key part of any technology service is the physical response either via the telephone or through the responder service which goes out to visit people. You should always put the person at centre. Another good example of this is the 'community hubs' where people are mixing with people (see question F7 below).

We need to reverse the idea that technology increases social exclusion and it certainly should not replace the person. We know loneliness is on the increase, and technology should help social inclusion, not hinder it.

Another great outcome we found is that people were ordering their shopping through the internet, putting them in control of what they wanted to buy. And they saw the delivery man. Out of all the technology that was the best thing.

One commissioner commented that they are closing sheltered housing contracts by 50% next year and that it is inevitable that technology has a role where personal interaction is a risk. It can minimise social isolation. |
5.	**What worries me is the lack of partnership working – this needs to come from central government. We're always scared to move forward. And until we have a central directorate it will never roll out. We need a strategic plan for it. As an older person I get sick and tired of let's wait and see attitude. How do we change this?**
	Housing are generally the leaders when it comes to transforming services and their approach is local. Both in England and Wales, the Association of Directors of Adult Social Services and housing trade and professional networks have signed up to a Memorandum of Understanding (Collaborative in Wales) to forge closer integration - one system for social care and health and they are involving housing. It's being led from the top and beginning to work.
E	INFRASTRUCTURE / MODELS
1.	**What do you recommend; hard wired or dispersed alarms for a new build?** **At what point do we invest in hard wired, Wi-Fi etc?**
	It's a combination of having the correct infrastructure that has the ability to easily adapt to changing needs. You need to make sure your homes have the capability of allowing people to make sensible choices, and whatever is the prevailing technology, it is able to be used for what you need.

	So if you are considering a move from hard wired to dispersed, you have to think about what you will miss in the process – door entry (which typically requires a wired infrastructure to each dwelling), links to CCTV, fire systems, building management systems etc. As we are talking about new build I would ask the question what is the purpose of the building? If it's a large building and requires Fire and Access systems, it could well be more cost-effective having a hardwired/IP solution. However, if it's a small number of units - say for learning disability or older people - it may well be dispersed It also depends on your vision for the services that you wish to provide and/or the services your residents will want/expect to access. Access to a digital infrastructure is more than just about the alarm system. For example, a digitally connected noticeboard in the main foyer may improve increase engagement with residents, visitors and families (and remove the need for printing and distribution!). An easy to access internet browser in the lounge may allow some residents to report repairs/check their rent account etc.so freeing up staff time in the contact centre to provide more to those people who could benefit from greater support.
2.	**Do we follow the needs led route and install dispersed alarms?**
	Again, if that meets your objectives then yes, but when you say "needs led" do you truly understand those needs and are they the needs of the consumer or the organisation. Do they reflect a narrow set of needs (perhaps based around funding) or a more holistic whole person approach which focuses on outcomes? As economic and cost efficiency pressures continue against a backdrop of increasing demands for health, care and support, the pressure to provide more effective joined up, cost effective, holistic, person centered solutions are increasing (one of the reasons behind the Better Care Fund initiative). If your objectives are simply to supply an alarm system then your options are relatively clear cut. If, however, you wish to provide a digital infrastructure providing a range of services that meet a variety of needs depending on those of the individual then an IP solution is likely to provide the best value both to social housing landlords, the resident, their families and the wider health and social care system. The services already available include secure social alarms, video door-entry, internal site wide telephony, Wi-Fi supporting digital inclusion and many more are likely to become available in the next few years.
3.	**We are thinking of installing interactive door entry systems to our properties and conducting our interviews through them to save home visits. Has anyone else done this; if so, what is the feedback?**
	If appropriate for the client base, this is an interesting idea. Video telephony /conferencing is in it's infancy in the housing sector but there has been some success in the health world (for example, Australia). Increased availability of high quality digital connectivity (e.g. fibre to the cabinet) makes this much more feasible.

	Interestingly, video telephony was a feature of the Smart Demonstration Home created as part of the West Lothian Opening Doors Project in 2000 which started the development of telecare
4.	**How safe is it (mobile/Wi-Fi)**
	Wi-Fi has become a utility just like water. 4 billion people use a mobile phone throughout the world but only 3 billion people use a toothbrush.

So when it comes to safety, it depends on what it is being used for. Safety critical devices such as telecare requires you to work with a provider who understands issues around resilience, connectivity, safety, privacy and reliability. A back up should the mobile signal or internet connection fail, is always required.

However, if the solution is to check your blood pressure or weight twice a day and a late reading is not life critical, then the resilience needs to be less robust.

So predictive solutions such as vital signs monitoring rely on trend analysis to prevent crisis such as hospital admissions. Responsive solutions such as telecare require immediate attention to an event such as a fall or smoke detector activation. The data/transmission reliability question is different for each. |
| 5. | **What models of care do we adopt and how can TECS help each one – sheltered, care, general needs** |
| | Aging in place needs to be taken into account across all the categories below. Maximising the ability of people to be able to stay in their own home for as long as possible is key.

• <u>General needs housing</u> – typically 45% of households are over 65 or have a long term condition – here we need to consider technology specifically for connecting people and early stage interventions

• <u>Supported housing for older people</u> - accounts for less than 5% of the market (729,818 units) – here we need proper risk assessments not only for physical and mental needs, but also for enabling individuals to stay safe and well for longer, utilising technology where appropriate

• <u>Extra care housing</u> – there is a significant shortfall of extra care housing in England (61,000 units by 2030) – here needs based assessments to cover issues surrounding complex health needs, mobility, dementia, frailty, memory as well as enabling connectivity with others can be supported by telecare

• <u>Specialist supported housing</u> – more can be done to improve the way technology can support people with physical, sensory and cognitive impairments

The Housing LIN has a range of useful resources on its housing and telecare webpages at:

http://www.housinglin.org.uk/Topics/browse/HousingOlderPeople/OlderPeopleHousingProvision/Telecare/?&msg=0 |

6.	**What do the IT, repairs and maintenance teams need to know in terms of cabling etc?**
	Again this is about the circumstances of the situation you are addressing and the outcomes you are looking for.
	In a new-build situation looking at the next 10 years of the buildings use it would be prudent to invest in Cat 5 or 6 cabling to each dwelling and communal areas. Cat 5 and 6 cabling is the same sort of wiring infrastructure that connects your PC in your office environment. Yes, this could be utilised by an alarm system (on a needs basis) but equally important will provide your residents with access to a host of new services. These might include new voice over IP cheaper telephony services (for example, BT/Openreach is currently trying to remove its obligation to provide landline services). This may include the ability to control heating more effectively either to make savings for the resident or in the case of someone with dementia to allow a carer to remotely change and check the dwelling temperature.
	Again in a refurbishment situation, Cat 5/6 cabling should be considered. Even if in the short term you don't plan to use IP services then it is already possible to install traditional alarm systems using cat 5/6 cabling so that the infrastructure is ready for the future.
	Wi-Fi access at least in the communal lounge along with a simple to use PC will also be important. This will support residents who are either light, occasional users of the internet and encourage current non-users to do so. As a minimum providing shared access to your tenant portal on your website is a good start.
7.	**What is IP and why is it good?**
	The home of the future will be full of things that are IP enabled – fridges, cooker, tablets, energy monitoring, mobile, home health hub, cctv, remote access control. What kind of kit you have in the home becomes less crucial. How they connect their own devices to your services or if you provide the devices is optional.
	IP will transform the way information is provided and the speed information moves around. It offers a world of opportunity, it just needs doing with note of caution – for example, you need to work with a provider who understands issues around resilience, connectivity, safety, privacy and reliability.
	So in summary, why is IP good • **It's always on** – it works 24hrs a day seamlessly unlike analogue which requires dialling • **It handles voice and data** on the same network – something not possible with traditional analogue telephony systems • **It's fast** – the data transmission speed is vastly improved and is virtually instantaneous • **It's adaptable** – you can access a whole host of new services previously unavailable combined to meet your particular requirements •

8.	**Rural areas – how reliant is IP/digital technology on the underlying broadband or mobile infrastructure which is currently challenging in a lot of rural areas.**
	Technology is going at the speed of the slowest ship! The back-up tool is analogue until the broadband/mobile providers have 100% coverage. GSM can also be a good back up. Technology is coming along by leaps and bounds but some of the systems are reliant on coverage. As a result, there will be some instances where one will have to tolerate a multi-level system, until universal access is available.
9.	**Interoperability - We have different systems in place from different providers. Are you working with other providers to link up the systems? Through IP will it be easier?**
	In the future there will be more "Bring your own devices" and services in the "cloud". Over a fast period of time those protocols and issues will disappear. That whole approach will become obsolete in next 5 years.
F	**AWARENESS**
1.	**How do I, a service user, know what's available?** **I don't know what technology can do**
	Technology is an area that is constantly evolving. There is a role for providers to consider these two objectives • Enable every person to have the **opportunity to benefit** from **technology appropriate** to their needs • Provide update to date, accessible and **easy to find information** that lists **what technology** is available in their local area For that to happen requires a number of things, not least training and awareness of what is out there and how it benefits people. Your providers have a large role to play here.
2.	**What about staff awareness, what do they need to know and when?**
	We know people are often not aware of what technology is available. This is why it's so important that staff who come into contact with people know about the latest technology solutions and talk about them. You may want to consider mandatory annual awareness training for all teams that indicates that you are working towards a holistic service which will improve outcomes for individuals and create efficiencies in the system It may be useful to split your audience into 3 • General - Mandatory awareness training all front line teams, members, health stakeholders, info and advice teams, managers, finance team. – annual for half a day, Tell stories, not technical, overview of available equipment • Technology champions training - Every 6 months, one full day- Tell stories, technical training of available equipment. Cover how to refer, provide suitable handouts • Technology experts/development offer training - Every 6 months, one full day detailed technical training and installation training of available equipment.

	Set a test at the end - Requires a test with 75% pass rate. If not achieved, resit the course and a measure of effectiveness may be the number of referrals that lead to a solution being put in place, by individual, by team. If you are considering these posts, job descriptions are available.	
3.	**Are their bespoke training courses available for my staff?**	
	Most good suppliers provide regular training sessions. Skills for Care has Assisted Living Technology training resources however this is aimed at social care teams - http://skills4carehub.virtual-college.co.uk/ Some universities provide courses, but there may be a cost.	
4.	**Is technology only safe and successful if all participants are signed up and committed; GP, district nurse, social worker, relatives and most important of all, the service user?**	
	We would certainly recommend the deployment of a regular and professional awareness programme covering all stakeholders as indicated above. An objective for your organisation could include • Communication plan in place with a series of measures and a methodology to review its impact on an 6 monthly basis to test if the plan is having the desired affect so that audiences clearly know the benefits to them However, it is not an easy achievement. The important part is that the technology is correctly accessed and applied also the correct response protocols are put in place. You need to bear in mind capacity and ethics. It is important to have clear ethical guidelines. These should cover fair access to technological solutions, avoiding unintentional harm, respecting privacy and confidentiality, and ensuring data security. It should always be about keeping the person at the centre of decisions. Their views and consent should always be sought. If they can't offer these, a best assessment of their views must be made with family involvement.	
5.	**Could some individual pilots be run, so we can follow service users with different issues through to an end result?**	
	Yes, a small project could be a very good way of introducing a new service enabled by technology so that everyone involved can see for themselves the results that are possible through the use of technology. An evaluation, however robust should take into account • Improvements to wellbeing, community engagement, digital inclusion • Did technology service reduce or delay need for care package – yes/no/neutral. If yes or neutral, what was the outcome • Longer term benefits of using technology- you may have avoided 6 months care home entry • Health care benefits - Falls-reduction in ambulance call outs, prevention of hospital admissions, increase or decrease secondary care activity • Impact on carers – consider demand on respite care and impact on carers health	

6.	**The technology that has been presented looks only to be for the 15% who may have access to registered providers and extra care. Why will it not follow the 75% who live in their own home?**
	That is not necessarily the case. Just look at the "Barcelona model" which supports 65,000 people across the community. This service is provided predominantly through the telephone. Community hubs now offer a way of integrating services throughout the whole community. Where access is a problem, providers give site staff 4G dongles in rural areas. So there are options available for all.
7.	**Health and Housing – I really like the concept of a "community hub" – are health aware of what housing can do?**
	We need to get the technology into these "hubs". We have to work with health – we have to understand health, totally different language. We all have a responsibility in the room. In the South West, we now have public health, GP and health sitting on the Housing LIN Leadership Set. The world of social prescribing is beginning to take off. See the case study describing 19 hubs across Gloucestershire. We need to get the technology into the hubs. We have to work with health – we have to understand health, totally different language. We all have a responsibility in the room. We have a Care Act that explicitly mentions housing for the first time. The NHS is not one organisation. In our area, we have 3 different IT systems from the GP. However technology offers a huge amount of potential. Technology does start to create some of the opportunities to integrate and create the connected home. Building those relationships in health is key. More at: http://www.housinglin.org.uk/_library/Resources/Housing/Practice_examples/Housing_LIN_case_studies/HLIN_CaseStudy_106_CommunityHubs.pdf

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