



WP1 focus groups

Key findings

ENSAFE

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1 Introduction

1.1.1 Setting the scene

On the 10th of February 2016, ICE creates facilitated a focus group to a mixed audience at the Liverpool Jury's Inn (See methodology for sample). The purpose of this focus group (FG) was to begin exploring and capturing insight into how people deliver and receive care with and without technology.

Questions were selected ahead of the FG that would gauge the audience's perspective both for the current and future state. Using clean language and laddering techniques, we were able to dive deep into opinions and beliefs without influencing the participant's responses. (See methodology).

The answers provided by the participants are vital in giving us an account and broad picture of how Health, Care and Technology is perceived and valued in the UK from the various roles that were represented on the day.

The outcome of these focus groups in combination with the recently established ENSAFE products and services (ENSAFE I, II, III, IV), will help progress to a second round of Focus Groups where work with a specific group of people that fit in to a single ENSAFE product/service solution. It is here that we will be able to ascertain how citizens and formal/informal care givers want the service to be run and what products they would like to use.

2 Methodology

2.1.1 Sample

Thirteen individuals and two facilitators took part in this focus group.

The group was made up of the following participants:

- A Primary Care GP from Liverpool
- The Head of Clinical Innovation, Liaison & Deployment from an Academic Health Science Network
- The Founding member of the University of the 3rd Age Groups in West Lancashire
- A Social Worker from a Local Authority
- An Assisted Technology Worker - PSS
- The Digital Care & Innovation Programme Manager at a local CCG
- A member of a local Assisted Technology Centre - ATC

- A New Initiatives Housing Officer at a regional housing group - YHG
- Principal Manager at a Local Council – HBC
- A Citizen living independently looking after his mother
- 3 X Citizens living in independent living retirement block

To ascertain the participants’ personal experiences of living with a medical condition or providing care to others participants were asked “What conditions are we aware of either through living with them ourselves or caring/providing for someone close to us?” Participants’ answers to this question are shown in table

Experience	Quotations
N/A	<p><i>“Not me particularly”</i></p> <p><i>“Nor me”</i></p> <p><i>“Nothing in particular just that my parents of the particular age now where I see them looking to benefit from some of the technology we’re here to talk about.”</i></p> <p><i>“... nothing recent but, time and time again when I see and speak with residents I see there are certain things that could enhance, if the technology was there to help support that, so definitely, definitely.”</i></p>
Know others with medical conditions	<p><i>“I’ve got parents with heart disease, lung disease.”</i></p> <p><i>“Grandfather with Alzheimer's.”</i></p> <p><i>“My mother has got vascular dementia and she is also housebound.”</i></p> <p><i>“...both of my grandparents suffered from Dementia.”</i></p>
Have a medical condition	<p><i>“Very mild hypertension...”</i></p> <p><i>“...I’ve had a stroke, I’ve had a brain haemorrhage as well and I think I’m the type of person you’re looking for.”</i></p> <p><i>“I’ve got mild leukaemia. I also have polymyalgia so I couldn’t of carried on living out in the community. Life is easier probably where I am, living with this technology.”</i></p> <p><i>“I’ve got bits of things wrong with me and every morning I wake up thinking oh, is there something else up with me today? I’m at that stage now where, any time now, I am going to be using this.”</i></p>
Have experience	<i>“I was an informal caregiver for a family member with long</i>

Experience	Quotations
caring for someone with a medical condition	<p><i>standing medical conditions.”</i></p> <p><i>“I’m doing some research at the moment with older people who’ve got a lot to say about this and also I am a part-time carer for a man with learning disabilities.”</i></p> <p><i>“I’ve had experience of nursing my mother with COPD for a number of years before she passed away. Currently have two very close relatives suffering from different forms of dementia.”</i></p>

2.1.2 Thematic analysis

The responses of participants who took part in the focus group were transcribed and analysed using an iterative and well-documented thematic analysis approach. Thematic analysis is a foundational qualitative analysis method, and a common building block of many established theoretical approaches (e.g. grounded theory). The transcript was analysed using the qualitative analysis software Atlas Ti. Example quotations are included within the body of the text of this report to provide evidence of the identified themes. Of note, throughout the report, when quotations are included, the participant ID includes a participant number and brief description of their role.

3 Results

3.1 What does care mean to you?

Participants discussed what care meant to them, based on their own perceptions and personal experiences. Understanding what is *salient* to participants (at the front of their minds) when they think about care helps us to understand *what they value about giving or receiving care*. Two broad themes emerged when participants discussed care: 1) care is personal and human and 2) care prolongs independence.

3.1.1 Care is personal and human

When discussing what care meant to them, participants used words such as *personal*, *social* and *human*. One participant described care as being a *relationship*, while another spoke about *putting somebody else's needs ahead of your own*.

"I'd have to throw it in, it is a social worker thing. It's that relationship. That's how you show care." (P10_HBC)

"I'm a simple soul. I think care is putting somebody else's needs ahead of yours. Which is the bit that's your social, personal, however we do it, care." (P1_GP)

"For those people that don't have anything to do with care and health services, kind of, the immediate thing that they think of about care, I think, is the human side of it, rather than that formal service provision." (P7_CCG)

One participant, a citizen living in an independent living retirement block, emphasized the *importance of older people having one-to-one contact*, while another participant described face to face contact as *"wonderful"* and *"what makes us human"*.

"Well I just don't think you really understand how important it is for older people to have contact 1-2-1, to be able to touch one another. That's the important thing that I can see and, in the future, how is it going to affecting other people's lives if you're going to speak to them and they can't see each other's faces. That's the important thing at the moment for people, it's loneliness." (P13_citizen)

"...that personal face-to-face contact is, that face-to-face contact is wonderful, it's what makes us human..." (P7_CCG)

The responses of participants suggested that they believed that *human interaction* was an important part of *providing* care. One participant stated that the time spent with an individual in their own environment was important, because it enabled the care-giver to identify and understand any wider issues.

"It's the 'R Word' - 'Relationships'. Now a social worker would say, that's the only thing we've got that's different, that we get to know people really well. In their

environment. People with quite chaotic lives sometimes that no one else, I wouldn't really say understands, but has time to spend with you doing that sort of thing.”
(P10_HBC)

“The agenda now is, you are looking for nursing things, but you're also a human being, so when you go in as a nurse, you would be looking for loneliness or stuff like that. And that's parts that we call 'Making Every Contact Count'. You don't just go in as a social worker, a nurse or a GP whatever you're going to do. There are also the human bits you're looking for.” (P10_HBC)

When one participant, a social worker, was asked how they made contact with people in their field they stated that it was mainly through *face-to-face contact* and *telephone* and *rarely through technology*. Face-to-face contact was beneficial to this participant because they had to ask personal questions as part of their role. This is likely to be because face-to-face or verbal communication methods provide feedback, such as body language and tone of voice, which may help them to have sensitive conversations. Of note, although this participant used 'traditional' methods of contact in their role as a social worker, in their personal life they used modern communication methods, such as Facebook, Whatsapp and Skype, to interact with others. The reason given for this disconnect was that it was a *cultural and generational issue*, and barriers to using technology which related to age emerged throughout this focus group.

Facilitator: *“How do you make contact in your field?”* **Respondent:** *“Mainly by knocking on the door, face-to-face or telephone. Very rare that [we] use technology to contact people. It's usually, you make your telephone call and arrange a visit and after that you have the face-to-face visit. I think maybe over the years, there are not many people who have used in a sense of what we're doing now. Myself, I like to make contact with family and friends; through Facebook, Whatsapp group, through Skype but that's as [name] said, it's a more cultural thing and a generational thing. But obviously our generation will soon get older and get to that point. It's difficult as well, because sometimes, as a social worker, you're asking quite [if you're assessing people] you're asking quite personal questions. So that face-to-face is...”* (Respondent; P4_social worker)

It is worth noting that this perception of care being a personal relationship or human interaction may be at odds with the common perception of technology being more impersonal and remote. Throughout the focus group, concerns were raised about the role that technology will play in care in the future and these are discussed in more detail in section 3.4.4.2.

3.1.2 Care prolongs independence

Another theme which emerged from this focus group was that care is important to prolong independence. To one participant, a citizen who lived in an independent living retirement block, care meant being able to continue their life *without the assistance of other people*. Another stated that sustainable care could prevent unnecessary hospital

admissions and *keep people in their homes* for as long as possible. Specifically, this participant described how an inadequate system of care could lead to an individual losing their independence earlier than they should.

“You need to carry on your day-to-day capacity for as long as you can without the assistance of other people...At this stage it is being able to stay in your own place until I demise.” (P12_citizen)

“I’m a simple soul. I think Care is putting somebody else’s needs ahead of yours. Which is the bit that’s your social, personal, however we do it, care. The trick with that is doing it in such a way that you can keep doing it, and that it is sustainable, day-by-day, year upon year, as part of a career or as part of a long-term relationship for as long as the other person has the need. It’s knowing when you’ve hit the end of the buffer. Like one of the things is, I work in the Out of Hours, and one of the things that frustrates me most is when I get called to a family where the care has run out. They’ve coped on their own for so long, to give help and aid and whatever else, and then they hit the buffers, “Something must be done tonight” and the only thing I can offer them is admission to hospital, which I know is really bad for the individual, the loss of social functioning, when its confusing, the loss of muscle mass. The number of people who will see that hospital admission, instead of the one or two people who will normally see them. Three changes of shift nurses. It just ends up with people not coming home.” (P1_GP)

3.1.2.1 What is independence and how can it be maintained?

When participants spoke of independence, their responses generally suggested that independence was about a person being able to *maintain their current way of life* and being able to *have choice and control over their lives*.

3.1.2.1.1 Maintain way of life

Participants were asked to discuss how people could continue the independence which they had as individuals. One participant used an example of how being in a retired living scheme with a care team in place had allowed one individual to *maintain a good quality of life* despite appearing to have a form of dementia.

“A retired living scheme, about 7 years ago. A gentleman moved in, he was a sales apartment, family were moving down south. He didn’t need to be assessed, just move in. No conditions or care needs were mentioned. It was only when he came to reception and said “I don’t know where I live”. And it turned out the family had been aware because they had put post-it notes on all the cupboard doors to try and remind him. So he then got assessed. This is a gentleman whose wife had only recently passed away as well. So he was very vulnerable, very isolated but because there was a care team in place, because it was the same people, because it was in a community of over 55s, [name] now, last time I went to the scheme, he was sat in the restaurant eating an apple pie with 3 ladies sat around him. He was loving it. But if it hadn’t been for that

environment and for that to be in place, he wouldn't of been in that position.”
(P9_YHG)

This participant also spontaneously used an example of a technology, mobility vehicles, when discussing independence. They described how mobility vehicles were allowing people to *maintain their freedom and ability to do everyday tasks*, such as going to the shops or hairdressers. In this example, technology is enabling individuals to remain independent for longer by *making their lives easier*.

“Something that I've been working on recently is around mobility vehicles. I've been going out and meeting with residents and finding out how often they've been using them. A big, big factor of that is, what's come back and the feedback is, “it's keeping me independent and maintaining my freedom, because I can go out to the shops or nip to the hairdressers. Otherwise, I wouldn't be able to do that.” (P9_YHG)

3.1.2.1.2 Having choice and control

Independence was also discussed in terms of *having choice and control over your own health and how it is managed*. Some participants spontaneously spoke of technology when discussing how independence could be maintained. For one participant, independence meant having the ability to choose when and how technology to manage health was used (*“independence from technology”*). For another, it was being able to make your own decisions, even if they could be considered unwise. A belief that an individual should be given the opportunity to choose which type of technology or support works best for them emerged throughout the focus group and is discussed further in section 3.4.1.1.

“Independence is interesting, because I was just thinking, in 20 years time, if I'm wearing a sensor that tracks my heart rate and stuff like that and lets people know where I am all the time, and god forbid I'm ever lucky enough to be invited to a party that I don't want my kids to know about. Having the ability to be independent and say “I'll just turn it off for the next 2 hours!” So there's a bit about independence from technology as well...It's having the ability to push the button that says, “I'm not being monitored now” (P1_GP)

“Part of independence for me is having the ability to make daft decisions sometimes you know. “I think I'm going to do that”. And really unwise decisions sometimes. Part of my job is supporting people but I think “What a completely unwise decision” but you've got to stand back.” (P10_HBC)

3.2 Current use of technology

3.2.1 How do participants use technology?

During the focus group participants were asked what technology they were currently using to support their health. Throughout the session, they also spoke spontaneously of technology used by themselves or others.

Some participants used *health and lifestyle factor trackers* or spoke of technologies which they used to monitor their health. One participant who was a GP described how they *advised their patients to use apps* to help them with their mental health or their levels of physical activity.

“Blood pressure monitor.” (P12_citizen)

“I use ‘Fitness Pal’. So it’s counting calories basically, and if you have done exercise it also calculates it for you. It will also bring up if you have not had enough protein that day, or if you reached your carb hydrates limit or your sugar limit. Or it tells you if you’ve had enough fibre. It’s quite good and it’s free.” (P9_YHG)

“I’m probably a right wing techno-fascist so I monitor my heart rate and energy level, sleep analysis, blood pressure through the watch and my phone. I use apps and advise people to use apps like ‘Headspace’ for mental health and wellbeing. I tell people to use games like ‘ZombieRun’ which if you can’t face going for a run on your own, why don’t you run away from the Zombies. It plays a story for you to run or walk. Invented by a lady who found it difficult to find the motivation to run. I use a database called Toxspace when I have to deal with anyone that has taken an excess of medicine. A reporting system called yellow card which looks up side effects...I have a portable ECG system which I use to check on the rhythm of a patient’s heart. I use something called Patient Access that works with EMIS to allow me to upload some of my GPs notes to the system.” (P1_GP)

Others spoke of the impact that technology was having on the way that they interacted with health care professionals (HCPs). One participant noted that they would *call their GP on the phone to have a one-to-one conversation* and another spoke of how *appointment reminders* ‘worked for them’. One participant mentioned that having access to technology was enabling people to have access to similar information to GPs, making them feel able to “*challenge the professionals*”.

“1-2-1 conversations with the GP. Calling them up on the phone.” (P6_citizen)

“Then I had something as simple as a text message this morning reminding me I had an appointment. That easy. But I appreciate like what you were saying before, that might not suit everybody, maybe from a sight point of view or a memory point of view, but it works for me.” (P9_YHG)

Respondent 1: *“I think also now it’s good because we can challenge the professionals because we access to similar information. GPs must get fed up with people coming and saying they’ve self-diagnosed.”* **Respondent 2:** *“I love it. It does challenge us.”* (Respondent 1; P10_HBC, Respondent 2; P1_GP)

Finally, one participant acknowledged that the *internet* was a good resource for people who wanted to find out about the services that their organisation offered.

“I’d say take a step back and say the Internet. It’s a massive resource for finding out about our services all the time.” (P5_PSS)

A number of participants spoke of *how they used technology in their role as a GP or within a GP practice*. One GP described how a phone-based access system for booking appointments was enabling them to solve many problems over the phone, which left them more time for the patients who needed a physical appointment. Technology and online databases appeared to be helping GPs by enabling them to find and share information. The responses of these participants suggested that they were embracing technology in their role.

“My practice we move to a phone-based access system in 2014 which means if you want to see a GP, you ring up. We ring you back. We aim to do it within 90 minutes. We only get it 70% of the time but if we need to see and treat you, we’ll see you within 4 hours. What we know is; out of the people we speak to on the phone, we can solve 30% of the problems on the phone. We can see and treat 30% of people that come in. We can do something better with the other 30%. Now that could be; do something better like tests and diagnosis. At the minute, it’s on the phone.” (P1_GP)

“I use a database called Toxspace when I have to deal with anyone that has taken an excess of medicine. A reporting system called yellow card which looks up side effects...I have a portable ECG system which I use to check on the rhythm of a patient’s heart. I use something called Patient Access that works with EMIS to allow me to upload some of my GPs notes to the system.” (P1_GP)

“I’ve reached a point in my practice where I use the blood pressure monitor and all the various apps with EMIS so I can share information. I still can’t make the appointments though patient access. The good point is that my nurse has been talking to me about the technology and she has asked me to bring in my phone so we can check it measure the blood pressure accurately against their own monitors.” (P7_CCG)

3.3 Benefits that technology could bring

When discussing technology, participants spoke of ways in which technology was *already benefiting people*, or *could benefit people in the future*. It is important to understand what individuals perceive the benefits of technology to be, because it helps us to understand what they believe the role of health-related technology can and should be in the future. These benefits could also be viewed as potential ‘drivers’, i.e. factors which will positively influence an individual’s decision to use technology now or in the future.

Over the course of this focus group, the following themes emerged. Technology is, or could be, of benefit by: 1) enabling health care professionals (HCPs) to be proactive, 2) making life easier for people, 3) prolonging independence and 4) connecting people.

3.3.1 Enables HCPs to be proactive

A number of participants discussed how technology could monitor an individual's health and *recognise any deterioration in their condition*. Specific types of technology mentioned here included technologies which monitor gait (walking pattern) and mobility, toilets which detect urinary tract infections (UTI) and a wellbeing tool on a mobile phone which can track how an individual is feeling. By alerting HCPs or other care-givers to problems early, participants believed that technology could *prevent an individual from deteriorating* to a point where they would need to be admitted into hospital or 24-hour care. The stated benefits of a proactive approach included that it could *reduce unnecessary hospital admissions* and so *save the NHS money*, and *prolong the independence* of the individual.

“Yeah I think for me, the social worker and the amount of people I’ve had to make the decision over the years as to whether they stay at their home or go into 24hr care, that for me is ideal. What you mentioned about not being able to use the technology. Yes then there is a scenario where the technology has to be passive. If you have got that technology that is monitoring someone’s gait [walking pattern], monitoring someone’s mobility, rather than it get to the point that they break something and have to go to hospital. From hospital, they end up going to 24hr care, it triggers [the new technology] and assessment from a physiotherapist. And although that person hasn’t got that ability to recognise that their mobility is deteriorated, it’s there and it’s able to respond. Then the physio can come out and resolve it at that stage rather than react at the point that they fell and cost the NHS money and result in them going in to 24hr care. To me that’s the key. That’s what it should be getting used for. I’ve seen a video where it’s about this person using the toilet and it can detect UTI’s. If that can alert a GP who can prescribe a course of antibiotics, it means the person doesn’t deteriorate to a point where I have to come along and sadly assess that they need to go into 24hr care. It saves the cost to the state, to the person and their independence. So yes technology can be intrusive, but it’s not half as intrusive as taking someone out of their environment and sticking them in a care home with a bunch of strangers. So for me, that’s what it should be getting used for.” (P4_social worker)

“I think, we talk about meaningful patterns, and knowing whether someone’s opened their fridge or done this or they’ve done that but, just asking that individual can be far more powerful than making an assumption on where they’ve walked that day. I mean, there’s a partner we work with that developed a wellbeing tool and it’s as simple as your mobile phone, pushing a message through to you asking how you feel? If you look at 12,000 - 15,000 people. If you know that ‘John’ has been replying that he is 8/10 in terms of how he feels, and he suddenly drops to 4/10. If after a couple of days on the bounce, he remains at 4, then that can be highlighted and that can lead to proactive intervention, and we can say to ‘John’ “Look, what’s wrong? Are you feeling ok? What is it?” and then signpost or whatever it might be to help him get back up to an 8/10. So eventually, it falls to human contact, human intervention and it’s being able to spot that. If someone is deteriorating, and their condition leads to a hospital admission, you could prevent that in the first place.” (P8_ATC)

A further benefit of such technologies may be that they enable HCPs to predict when people will require a hospital admission and so be better prepared to “manage” and “risk stratify”. One participant stated that this would enable HCPs to *proactively support* people and know in advance when people are going to require help.

“There is actually sensors that are on a wide scale deployment that will predict when somebody is about to have a fall, or predict when somebody is going to have a hospital admission.” (P7_CCG)

“And that’s where the big link comes in isn’t it. IT let’s us as care and health practitioners, we’re able to risk stratify, we’re able to manage. We’re able to move to a position where we are proactively supporting people, waiting for people to cross our doors.” (P7_CCG)

3.3.2 Makes life easier for people

When asked what technology needed to do to improve health and independence, a number of participants stated that *technology needed to make people’s lives easier*. Participants suggested that people whose lives could be made easier by technology included the *individual themselves*, their *family* and/or their *carer*.

“...it’s just got to make your life easier. In my case, to be fair, I think I am pretty well teched up.” (P1_GP)

Respondent 1: *“Makes your life easier. That’s what the people of Liverpool said. We’ve done a lot of research. To have something in this area could be attractive but people have got to want to use it and that’s why escapism...”* **Respondent 2:** *“Who’s life does it make easier?”* **Respondent 1:** *“Yeah, it could be yours or it could be your family.”* **Respondent 2:** *“Well I was thinking could it make your carer’s life easier? And they immediately then feel relaxed. It’s going to take a while to make the person’s life who needs this easier, because they will be nervous and will need a lot of support.” (Respondent 1; P7_CCG, Respondent 2; P13_citizen)*

When participants described technology, one of the benefits that emerged was that technology can help people to do things which they would struggle to do otherwise. For example technology, such as mobility vehicles, helps individuals to *continue their day to day activities* past the point at which they would otherwise have needed to receive support or care, thus prolonging their independence.

“Something that I’ve been working on recently is around mobility vehicles. I’ve been going out and meeting with residents and finding out how often they’ve been using them. A big, big factor of that is, what’s come back and the feedback is, “it’s keeping me independent and maintaining my freedom, because I can go out to the shops or nip to the hairdressers. Otherwise, I wouldn’t be able to do that.” I appreciate technology is a bit different because it’s a vehicle rather than a tablet or phone or something, but again it’s part of the balance I think and it’s what people are leaning towards. The

different types of technology and then how that interacts with health movement and wellbeing.” (P9_YHG)

Others described what they would like technology to do to make people’s lives easier in the future. One participant believed that technology, such as *sensors*, which can detect movement and switch on a light could help older people and *reduce the risk of trips and falls*. Another wanted information, such as blood pressure readings, to be delivered directly to their GP because this would mean they did not have to ring the GP as much.

As written in the original programme brief, the overall objectives for ENSAFE is to meet some of the societal and service provision related challenges posed by ageing society, by developing specific ICT-based solutions. More specifically, ENSAFE aims at supporting more effective prevention and self-care strategies by creating a smarter, more accessible and versatile link among the elderly person, their living environment and the support network around them. Through the ENSAFE approach, the elderly person is expected to gain more awareness and control over their own health and wellness, empowering them in the self-management of care and thus fostering chances of more independent and higher quality life. Besides potential benefits brought to the elderly user, the project goals include supporting the informal caregiver network surrounding them and optimizing connection toward professional caregivers. As a by-product, it is expected that the project activity will create more room for inventive and flexible market actors, widening the possibility of SMEs by means of networking. Further research work will be completed in the UK and other participating European countries to ensure our objectives are validated and rationalised by all the interested stakeholders.

Respondent 1: *“Because I’m just wondering, from what we’ve been discussing, whether it’s, you input the data and then it’s passed on. I don’t know if it can go the other way? I’m just thinking if it can go outside the box, so apologies if it’s pie in the sky. One of the biggest problems, from my experience with older people, is they’ll have trips and falls, especially if they’re maybe going to the bathroom every now and then. Would there be something there to say, if there was a sensor, you know and someone has got up to go to the bathroom, would there be an app where maybe it could do something like switch on a light or something like that? So it will help people. I’m just wondering whether it is a two-way thing.”* **Respondent 2:** *“It’s a big desire to try and cater to both sides. So if there is something that helps the patient in the real time, which can also feed a system that is actively trying to assist in prevention, that’s what we want to see.”* (Respondent 1; P9_YHG, Respondent 2; P14_facilitator)

“What about the information. So Blood pressure readings for example, would that go to your GP...I’d like that information to be out of my hands and sent on so I don’t have to ring the doctor as much.” (P12_citizen)

3.3.3 Prolongs independence

Another benefit of health-related technology which emerged from this focus group was that technology can prolong independence. Prolonging independence emerged as a

positive outcome of using technology to proactively detect health problems (discussed in section 3.3.1) and making people's lives easier using technology (discussed in section 3.3.2).

Broadly, technology was linked to prolonging independence by: 1) helping people to stay informed about their own health and health needs and 2) preventing people from being admitted to hospital or care unnecessarily. Importantly, prolonging independence emerged as a theme when participants discussed what care meant to them (see section 3.1.2). The potential for technology to prolong independence may, therefore, be an important reason why people might use technology to support their health or the health of others in the future.

3.3.3.1 Technology helps people to manage their own health

One participant spoke of how *telehealth* (the use of telecommunications technologies to enhance health care) was enabling individuals to understand more about their health. As a result, telehealth could enable people to *help themselves to remain independent*. One participant used the example of an early adopter of telehealth in Liverpool, for whom being *informed about his own condition* had enabled him to be in control of his own health. This meant that he was able to determine for himself what he needed in order to stay out of hospital. Another participant, a citizen living in an independent living retirement block, requested technology which would help him to remember to take his medication, which would enable him to *maintain his own health without needing the help of others*.

“One of the early adopters of telehealth in Liverpool, this was a guy who had about 20 admissions into secondary care/hospital multiple conditions, COPD, heart and lungs and he started using telehealth and what was key for him was, he was more informed about his condition. He understood it and therefore it moved him into the position of knowing and into a position of control. So when he started to recognise the physical signs but also started to get the readings that something was changing, he knew what actions to take. He got to the point where he'd been through a 12-month period without having to go to hospital and he started to feel unwell. He went to his GP and told his GP what he needed to keep him out of hospital and his GP went “You don't tell me what to do. I'm the GP” and this guy then went “Ok I'm changing my GP and walked. And for all those people, the first significant impact that we've seen at scale in Liverpool is more informed consumers of service. So they're starting to really use the information. What works for them, what doesn't work for them, what will keep them independent?” (P7_CCG)

Respondent 1: *“I'm of a certain age now that because of my medical condition, from a few years ago, my memory is not as it should be. Because of my medical condition, I have to take certain medication on a certain day. But I've got my wife. She won't mind me saying this, but she's not as young as she was (Sorry love). She has to remind me a lot of the time, when to take my medication. What would happen if, god forbid, anything happened to her?”* **Respondent 2:** *“That's his biggest worry, if I die, who'll*

tell him to take his medication!” **Respondent 1:** “You know, if there’s someone like me who could be on their own. There’d be no one there to tell me to take my medication. Could this technology remind me?” **Respondent 3:** “There are apps now that you can get and set up to remind you. Your phone will just ping and tell you to do it for as long as...so you can replace her” **Respondent 2:** “with phones! There you go, don’t worry about it.” (Respondent 1; P11_citizen, Respondent 2; P12_citizen, Respondent 3; P1_GP)

3.3.3.2 Technology could prevent unnecessary admissions to hospital or care

Participants also discussed scenarios where technology could help people to maintain their independence by *predicting and preventing unnecessary hospital admissions*, discussed in detail in section 3.3.1. This likely also relates to the theme that technology can make life easier for people. If technology can make life easier for individuals or their care-givers, then this may help them to remain independent of full-time or intensive care for longer.

3.3.4 Connects people

Throughout the focus group participants were concerned that health-related technology would increase loneliness and social isolation and these are discussed in section 3.4.4.2. Nonetheless, some participants stated that technology could in fact help to *connect people* and potentially *reduce loneliness*. A number of participants believed that technology could be used as a *tool* which *enabled people to leave their house* and give them the confidence to do so. In this way, technology would facilitate connections and human, face to face conversations rather than replace them.

Respondent 1: “I take your point but, there a lot of very lonely people in the world, and if they’re lonely now, when for most people the contact is face to face, what’s it going to be like when we replace bits of your face-to-face with your technology? It’s going to get worse.” **Respondent 2:** “I think it’s going to get better...” (Respondent 1; P13_citizen, Respondent 2; P1_GP)

Respondent 1: “There is a thing with this around the way it is marketed, because technology needs to be the enabler. To connect people rather than it just be as a replacement. That’s the tool that can give someone the confidence to leave their house or do whatever they need to do, knowing that that support network is sat behind there. It’s how we kind of pitch that and encourage that interaction.” **Respondent 2:** “Nail on the head there for me in terms of, it’s not a replacement, if anything, it’s a supporting tool/enabler. So in terms of [name], you were saying before you wouldn’t wish to communicate with someone entirely through the Internet or video whatever. But if there were applications that provided information on local groups that took place physically nearby to you, then technology would be helping you to find that face-to-face conversation. You know, not necessarily with family members, but certainly in terms of connecting people with things that are close to their heart. And I think that’s something that we’re interested in within the ENSAFE project. Linking up local

activities with people seeking similar experiences.” (Respondent 1; P8_ATC, Respondent 2; P14_facilitator)

3.3.5 Summary of benefits

Based on the key findings discussed in section 3.3, we propose the model shown in Figure 1.

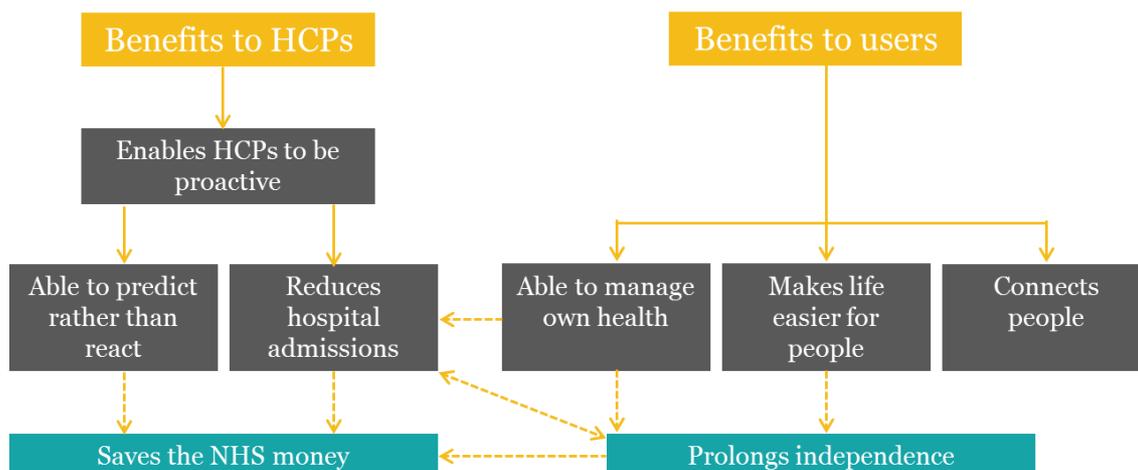


Figure 1: Proposed model of how health-related technology could benefit individuals providing care and individuals receiving care, based on the findings of this focus group. Solid arrows indicate benefits which arose from participants responses. Dotted arrows represent positive outcomes/benefits which were either stated by participants or can be inferred.

3.4 Barriers to the introduction or use of technology

Participants were asked how they felt about using technology in the coming months and years and whether there was anything that stopped them from wanting to use it currently (here referred to as ‘barriers’). Such potential barriers to using technology were also raised spontaneously throughout the focus group. Concerns and potential barriers to the use of health-related technology could be broadly split into those which were *practical*, such as technology being unavailable or difficult for older people to use, and those which related to *fears and concerns*.

3.4.1 Concerns that people will not be able to access or use technology

A number of participants noted that current technologies were sometimes *unavailable to people* or *impractical for people to use*, or as one participant put it: people “can’t” use technology as opposed to “won’t”. One participant spoke positively about a phone-based access system in a GP surgery, but said that users had been concerned that the system would be impractical for anyone who did not have a phone. Another participant

noted that some people may not be able to access Wi-Fi, which could feasibly prevent people from using digital platforms/websites or digital applications.

“So an example would be; my practice we move to a phone-based access system in 2014 which means if you want to see a GP, you ring up. We ring you back. We aim to do it within 90 minutes. We only get it 70% of the time but if we need to see and treat you, we’ll see you within 4 hours. What we know is; out of the people we speak to on the phone, we can solve 30% of the problems on the phone. We can see and treat 30% of people that come in. We can do something better with the other 30%. Now that could be; do something better like tests and diagnosis. At the minute, it’s on the phone. Now that’s interesting because you can’t to see what I look like on the phone and patients have described me as a ‘little star’! I ask you, do I look like a ‘little star’ right? And it’s all kinds of much more friendly, social, human interaction on the phone. But some people say, “It’s not about me, it’s about other people who haven’t got a phone.”” (P1_GP)

“Can I ask? Is it also if the people CAN’T use it? I mean physically or competently. Also would you need Wi-Fi? Can you get Wi-Fi where you are? Not just geographical locations but also the type of building. Some of the buildings I’ve worked in, I’ve had difficulties accessing the mobile signal. Or I have had difficulties trying to get Wi-Fi in places. So again it’s about that. It’s taking a step back and saying ‘it’s not won’t but perhaps can’t.’” (P9_YHG)

Furthermore, one participant stated that some *older people are not capable of using current technology*. The reasons given for why this could be the case included that some people may have *dementia*, may *be unable to use their hands* or may have *poor eyesight*. Such factors should be taken into account when designing any new products for this market. A number of participants discussed how health-related technology could benefit individuals with health needs without them consciously using it for that purpose, or even without requiring them to use the technology themselves. Another participant suggested that a simple interface could make even complicated technology easy for people to use.

Respondent 1: *“This possibly goes against everything you’re here for? We’ve got a generation who can’t use this technology. They’ve either got dementia, they can’t use their hands or their eyesight is not good.”* **Respondent 2:** *“I guess I would ask a further question then. Can technology help them without them directly using it themselves? Is that something that people consider?”* **Respondent 1:** *“That’s something that I haven’t considered. It’s just this fact. There are a lot of people who a) won’t be able to use this, because of the dementia they’ve got.”* (Respondent 1; P6_citizen, Respondent 2; P14_facilitator)

“It feels like we’ve had mobiles forever but I’ve just had a simple mobile. Don’t give me an iPhone, I wouldn’t want one. I don’t need to understand them. I have a job retaining, in this brain, the bits I can retain, so I wouldn’t you know...It’s getting worse, not getting better.” (P12_citizen)

Respondent 1: “Again it’s what we were saying before. It goes back to the individual. Different people have different wants and needs.” **Respondent 2:** “Yeah.”

Respondent 1: “For example. I know this is a big difference in, dichotomy but, my fella at the minute, I’ve got him one of those smartwatch fitness tracker things. Now it’s linked up to a GPS system or something, so I can actually see where he’s going. But it monitors not only his track but also blood pressure as well, and just going back to somebody who wasn’t or could look at that, or interested in that, if there was a spike maybe, that could be something the technology could then trigger.” **Respondent 3:** “Preventative.” **Respondent 1:** “So maybe there are different elements. They could maybe help even though they’re not directly using them?” (Respondent 1; P9_YHG, Respondent 2; P6_citizen, Respondent 3; P14_facilitator)

“I have an iPhone yeah and it’s a fancy one...so in answer to your point, if this had two buttons on it and it said ‘Mum’ and ‘Dad’ and I could only make two calls, they’d be the two calls I’d be making. And if that’s all it said and that’s all it did, I’d be happy so I’d be using an expensive bit a kit to track my location and all the rest of it and keep me going longer than I would do independently. All I have to do is press one or two buttons and the rest it would do on it’s own. So I take your point, if I had vision problems, I’d ask ‘Siri’ (Apple’s automated PA) or whoever, and even that’s customizable...” (P1_GP)

Another concern raised by participants was that *some people may not know how to use technology*. One participant was concerned that some older people would not be able to use computers, while another noted the internet was a “massive” resource for finding out about services, but that searching the internet requires a skill-set that some people do not have.

“Just as an aside. One of our neighbours is 93 years of age, and on his own computer, he has just wrote his own life story. He’s just had it published. He took lessons in computers. 90 years of age, that’s fantastic. Not everyone at 93 years of age will be able to do that, but it shows what can be done.” (P11_citizen)

Respondent 1: “I’d say take a step back and say the Internet. It’s a massive resource for finding out about our services all the time.” **Respondent 2:** “Do you think that it is used commonly across a wide range of users now or is it still something that certain people haven’t learnt to use yet?” **Respondent 1:** “I think it’s still a skill set that some people don’t have. You know what to search for and what search terms to use. Finding Internet community groups that don’t have a very good presence for example are hard to find.” (Respondent 1; P5_PSS, Respondent 2; P14_facilitator)

Some participants offered solutions to the potential concerns and barriers being raised. Participants spoke of existing initiatives where older people had been given training or support on how to use computers, which included: *using young people or school children to train the older generation, peer-to-peer training* and taught *classes*. *Training and educating the older generation* will likely be important to counteract a

lack of knowledge surrounding technology and the fear of using technology which could result.

“Again, this wasn’t for health apps specifically and it was a while ago, but we ran a session where young people 16-20 would come in and show the residents how to use computers, the latest things that they can look at, and, because they’re whizzes, they just go, “That’s how you do it”. They’re very to the point and then what happened was, that inter-generational learning was then repaid by the residents going to the young people’s groups and having a reminiscence day, and talk about some of their experiences and have a recollections of World War II where they will bring in memorabilia: memories, photos and then young people did a bit of a display for it. It was just bringing those two age groups together and learning from each other. It was a wonderful initiative.” (P9_YHG)

“We’ve actually had the school children come into our centre. 8 year olds, to teach computers. We also had a very good lady who came in to teach us about computers for 6 weeks. She was oversubscribed because there were too many people who wanted to see her.” (P12_citizen)

“I think some of that is that we’ve got some success with peer-to-peer training. So older people are showing other older people what they know. So that works quite well.” (P10_HBC)

Respondent 1: *“I think one of the things you may not quite be aware of when you’re younger, older people take twice as long to be taught something and we had a brilliant lady who came in and taught us the basics of computers and she was really good. But, we had how many?”* **Respondent 2:** *“6”.* **Respondent 1:** *“6 lessons and then she went and she said “But I will come back”. And we all really needed her to come back as we weren’t all quite sure what she told us. If she came back, she could have consolidated that information and we could have moved on. You need to have a bit of time to absorb it, and then sort of do a little revision lesson. Older people need that more so. I don’t think I’ve started on the path yet of going downhill but I’m probably well on the way. That would of been so useful to me but I struggled.” (Respondent 1; P13_citizen, Respondent 2; P12_citizen)*

Participants suggested that older people could struggle with assimilating new information and may take longer to learn, which may need to be taken into account with any education initiatives. Some participants suggested that a *proactive approach* of educating people on how to use technology before they become unwell, could help. One participant suggested targeting what they called the *“young-older” generation*, who are ready to use technology while another suggested using ‘activated’ people who can use technology as *“digital champions”*.

“But that’s the fascinating thing about [name] and your stuff. If you’ve got a bunch of activated people who are thinking about stuff, doing stuff and thinking about their futures but are not ill at the moment, then getting them started on using stuff that

helps them, as [name] says, enables them to do stuff. It's great because, as time goes by there's one of three ways in which life is going to go. It's going to go very well for a period of time and then drop off the perch really quickly. Get some big illness and then carry on with that for a while or there is the flight path that is going to change all the time. It kind of depends where you live as to what happens. So if you're on the south coast, you're going to make it until 88 and then you're going to drop off the perch really quickly. If you're in the northwest, it's a slow flight path so you live from the age of 50 onwards with some kind of illness. So getting people to use the stuff to help them do other stuff before it gets to health is really key. So in some ways, this thing, if it starts out with some social function or a way of helping people when they're well, and it just enhances what they can do if they're ill, then you're laughing because it's part of your life. So our phones are like that because you've got them so you just embed it in. Knowing who's activated to use it means that you can start with people like that, whatever you want to call it, digital champions or however you choose to do it who can spread and break it first, before it gets to the people who are natural techies." (P1_GP)

"...you're looking to target the young-older people who are ready to use this technology. If someone falls sick, it's too late for them to start using it." (P8_ATC)

"We do teach people iPads. My feeling is we should give every grandparent with an iPad, a 10-year-old grandchild to show them how to work it. So we're looking at some intergenerational things. We're pushing the iPad story, because that is life changing! They can work and it does work properly. But that's really why I am here. How can I get this stuff into an arena where well people have the energy to learn and do something with them?" (P3_U3A)

Additionally, some participants noted that it was *a challenge for people to know which technology is best* and noted that a lot of health-related technologies and applications already exist. A number of participants highlighted the importance of endorsements and technology reviews in raising awareness of the best health-related technologies.

"I was in with [name] earlier and someone said, "There is something like 160,000 health apps now" potentially you can use. I've seen the book as well now and it's that thick [gestures a thick book], you know. What do you go to? How would you choose one over the other?" (P8_ATC)

"But trying to find them is really really difficult. Big retailers struggle with it. Apple have got all of the bits of medical kit now, but go and try and talk to one of the 'Apple Geniuses' about it, they haven't got a clue. The issue is then, how do we present this to citizens? How do we help people navigate the systems? If it's difficult for people like us who are working in the field, for those people coming to it 'new', it's going to be a nightmare! So, there's big challenges there." (P7_CCG)

Respondent 1: "We know locally, if not nationally, one of the challenges is there is loads of great stuff out there, but finding that physically and finding it online on

Google is really really difficult. Even if you use Amazon, it's difficult to find which bit of kit, which gadget or which bit of health care kit is going to be useful to you in your life. I think it's a challenge in terms of how the market is set up. We've got a lot of these products being produced by very small companies that have got single products and they haven't got retail arms. So there is a disconnect between the glossy, smooth retailing that we're used to and then this stuff. You've got the like of Argos which have how many different bits of kit...?" **Respondent 2:** "It's amazing to think, in Argos you can go and buy any number of assisted living items. Wheelchairs, anything and everything you can think of." (Respondent 1; P7_CCG, Respondent 2; P8_ATC)

Respondent 1: "I think there's that endorsement thing with health apps. You know it's things like, "That's an app my friend uses"" **Respondent 2:** "For that reason, I have started reviewing health apps and putting video on YouTube just to say, this is what I found useful. If it works for you, fantastic. This is what it looks like. The NHS has done some reviewing of apps, but it's very limiting. 'If you're this kind of person, this kind of app works for you' or 'this is an app, it's met these criteria, tick, tick, tick.'. In terms of prescribing, it's still in it's infancy. There isn't a system that says, if you come and see me, and we have a chat, and I show you a demo of something, and you say "I like that", there isn't a system where you can give me your mobile number, and I can send you this app and you have a go with that then." (Respondent 1; P5_PSS, Respondent 2; P1_GP)

3.4.1.1 Technology is unlikely to be one-size-fits-all

Throughout the focus group, participants acknowledged that individuals have different needs for health-related technology and different barriers to using it in the future. As a result, a health-related technology is unlikely to be one-size-fits-all. Participants believed that people need to have a *choice* in how they manage their health and what type of technology, if any, they use to do this.

Respondent 1: "I think you're right. I think it's about making sure the solution gets the approach that matters to them...I think if we can create systems, that means if you're a face-to-face person, you get face-to-face support but if you're a tech, like my dad's 77, my mum's 75. They're completely different people. He reads the daily mail on the iPad, and she reads the mirror on a Kindle Fire. They've both got for Christmas from us. So they're completely different people but they have moved into the 21st century tech. In a few years time, 10 years time, I'll be a 60 year old looking forward to retirement and all that kind of stuff, and I'll be totally connected. So my cousins that I know but never see from one year to the next. I know what's happening in their lives. They're all on Facebook and we talk. So some of us are techies, some of us are not, and if the techies who have got health needs get looked at in a tech way and the people who are not techies who've got health needs, get looked at in a non-techy way, and that's one of the questions about this really [referring to ENSAFE]. If at the end of the day, you produce something which has to be prescribed or has to be applied for or you get one thing and it's just like a box, you know, that's it and it's one size fits all - it's not gonna work. But if individuals can well, I'd like this and I'd want a bit of that and it

uses the box in the same way, then great. Because I already know the stuff like Yacko out there at the minute and various apps that people have got for trackers and stuff like that, and if they choose to use them that's great, but if you offer it to them and they're a non-techy, it's a waste of time." **Respondent 2:** "Yeah it's not one size fits all for sure." (Respondent 1; P1_GP, Respondent 2; P14_facilitator)

"It's what we said before. It's about choice isn't it? It's about the individual. Ultimately it boils down to, what works for one person, doesn't necessarily work for another. [Name], what works for you, someone texting you to say 'Take your medication', may work for yourself, you may not want the intrusion of someone coming into your property and saying "[Name], take your medication". You might find that intrusive. Equally someone might welcome the fact that someone knocks on the door and says, "Take the medication". It's different for different people. As long as it's not one size fits all, there is an opportunity to give people choice....It's quite often I'd go out and people wouldn't want you knocking on the door. They say "I don't want people knocking on my door, coming into my house" and maybe you'd offer them Skype calls. It's finding out what type of person that is, and building from that." (P4_social worker)

Respondent 1: Yeah, I'm thinking of people making doctors appointments, getting in touch with the gas board. They might be able to use their hands but, my mother also has a sight problem so, it's erm..." **Respondent 2:** "Again it's what we were saying before. It goes back to the individual. Different people have different wants and needs." **Respondent 1:** "Yeah" **Respondent 3:** "I think there has to be different routes in. Some people will say, "My mother's got dementia and I've got hypertension so I need..." whereas someone else might say "I want to be safe while I'm out and about. I don't want to be housebound." Other people will have a particular product or health solution in mind, so they will go straight to it. So again there has got to be choice. Choice in terms of how you find and how you interrogate what's available to you." (Respondent 1; P6_citizen, Respondent 2; P9_YHG, Respondent 3; P7_CCG)

3.4.2 Concerns that systems are not in place for new technology to be introduced

During the focus group, participants raised concerns that systems are not currently in place for new technology to be introduced. One participant described it as a "**cultural challenge**" rather than a technological one, stating that this was because the **technology which already exists is not currently within the operating model of services**. This participant also questioned how data from the private realm could be transferred to the NHS and had concerns over identity verification. In order for technology to be used in the future, it will be necessary for practical barriers such as these to be addressed.

"I think we're often hit with the phrase that there is 20% of the population that is digitally excluded, but actually you flip that and you go to the point now where most of us are digital natives. So the school that's over there [points to location] UTC, they asked 100 kids, 'If you wanted to make an appointment with your GP, would you want to make an appointment using an App, online or ringing them? It was interesting, 10

of them said they would want to ring in or go across the door so that needs a bit of digging, but most of the kids there, wanted to transact remotely. We already have the technology, it's just not within the operating model of the services currently, and that isn't necessarily a technology challenge, it's a cultural challenge." (P7_CCG)

"I think there is a challenge there for this project. In terms of how you get data from the private realm into the NHS realm and then, there is the challenge of how the data moves around the system once it gets there. I mean in Liverpool, we've been kind of struggling with that for the last three years and we're getting to the point now, so it's an NHS sponsored programme where we're trying to create that platform so you'll allow various applications to plug into. So you'll be able to physically transfer your data into the GPs. But the other complication is how does your GP verify that you're the person on the other end of the application? That brings another government department that's bringing in identity verification. I don't think there's many other health economies. The other model is that you hope there are GPs like [name] who are open to this technology and you just either send the data to them in an email or bring it in with you to the GPs and say 'here you go'. As long as they're accepting of that." (P7_CCG)

3.4.3 Concerns that GPs will be overloaded/any data collected will not be meaningful

A number of participants discussed digital technologies which can monitor or track health and a number of participants already used technology to track lifestyle factors such as heart rate, blood pressure, activity levels and diet. Technologies such as these have the potential to generate large amounts of data. Establishing how and by whom this data is collected and analysed by is likely to be a barrier to overcome. One participant was keen for any health data that they tracked to be sent directly to their GP, but recognised that this would result in a 'lot of work' for their doctor.

"What about the information. So Blood pressure readings for example, would that go to your GP...I'd like that information to be out of my hands and sent on so I don't have to ring the doctor as much. Because I can't go to bed thinking I've got that [blood pressure reading]. So will the information be in your hands or to the doctor? Because he's going to have a lot work to do at his end isn't he? If he's doing a lot already and he's got all this information coming in..." (P12_citizen)

Other participants noted that such *information would not be meaningful* unless it was being *interpreted* and *acted upon*. One participant who was a GP suggested that the information would need to be 'filtered' and 'condensed' so that GPs are only given information that matters. Of note, if GPs believe that new technologies will increase their workload, rather than reduce it, then this may make them reluctant to use it. It may therefore be important to engage, train and reassure GPs about any new products which are introduced and ensure that new technologies are developed with this in mind.

“I don’t see how it would help having all that information if you didn’t have somebody clever at the other end interpreting it.” (P12_citizen)

“Yeah I think it’s interesting isn’t it. Allegedly there’s an Internet myth, or maybe it’s true? 90% of all the data in the world has been created over the last two years. And so, even those of us who have the phones, we have data whilst we’re sat here that’s being recorded. We will leave here with a little trail of information behind us. If someone really wanted to find out where I’ve been they could. But if I stayed here beyond the evening and was laying in my car after having a heart attack, no one is going to know, despite that data being stationary for so long. But if it did get magically transported back to my GP or whatever, he wouldn’t care. Because he’s he’ll be too busy looking at 12,000 other data stream and just trying to get your head round all that is amazingly complex and impossible. So what’s going to have to happen at some point is, we’re going to need to filter out all the ‘everyday’ stuff and like that picture showed at the start of this [presentation], Only the stuff that actually matters comes up. Now I think as a human being, if I take my own blood pressure and I can stick it in the phone, then I can stick the reading that works best for me whatever that is, and my GP can choose to believe it or not. As long as he can see what I get up to at home or when I come and see him at the surgery, then he can make a decision. Somehow, we’re going to have to get it condensed so GPs aren’t constantly getting nudges about the wrong kind of things.” (P1_GP)

3.4.4 Fear of, or reluctance to use, technology

A number of potential barriers emerging from this focus group appeared to relate to fears rather than practical concerns. These included: 1) the perception that some people ‘feared’ new technology and 2) concerns that technology would replace one-to-one care.

3.4.4.1 Fear of new technology

A number of responses implied that participants either feared new technology or were reluctant to use it. Participants described how people could be *frightened* of new technology and *nervous* about using it, or preferred technology to be simple.

“It’s got to be simpler, and we’ve got to take away the fear. You know we have these kids that come in and teach us, but when they go away, people are frightened they might press the wrong button and the whole screen goes blank...We need to do something with this age group whereby they won’t be frightened by this word ‘Technology’. So even though they don’t quite need it, they can come to it when they do need it.” (P3_U3A)

“It’s going to take a while [for technology] to make the person’s life who needs this easier, because they will be nervous and will need a lot of support.” (P13_citizen)

A number of participants noted that technology must be simple to use and people must have training in order to “take away the fear”. As discussed in section 3.4.1, this highlights that there is a need for education. One participant described how they had

found technology to be “frustrating” to begin with, but now found it simple and empowering. This participant noted that they thought they would never be able to use technology, which implies a *lack of self-efficacy* (belief in one’s ability to succeed in a situation or accomplish a task). Lacking self-efficacy can make individuals reluctant to make a change, which in this case could be using health-related technology. One participant suggested that technology should be made to be simple, but believed that with training and support people could progress to more sophisticated technology. In general, participants appeared to believe that a choice of technology needs to be available to cater to the ‘tech-savvy’ and those people who are more reluctant.

“It’s got to be simpler, and we’ve got to take away the fear. You know we have these kids that come in and teach us, but when they go away, people are frightened they might press the wrong button and the whole screen goes blank. They need to have some ease of getting back in to the starting point. I come back to where we started really. We’ve been looking at needs now, not how do I get hold of these people now, that don’t have needs but could come along to sessions. We could do sessions on ‘how to get the most out of your phone’ and they’d come along to that quite happily and then ‘how to get the best out of your iPhone’ and they could progress to more sophisticated phones. We’ve also had sessions where we have conferenced Skype enabled and we’ll have four people on. We might do a poetry club or a book club. We need to do something with this age group whereby they won’t be frightened by this word ‘Technology’. So even though they don’t quite need it, they can come to it when they do need it. It’s confidence in operating these schemes.” (P3_U3A)

“It feels like we’ve had mobiles forever but I’ve just had a simple mobile. Don’t give me an iPhone, I wouldn’t want one. I don’t need to understand them. I have a job retaining, in this brain, the bits I can retain, so I wouldn’t you know...It’s getting worse, not getting better.” (P12_citizen)

“Yeah, because once you get the hang of it, it really is empowering isn’t it? But at first, it’s just totally frustrating. I thought I’d never ever do it. But as you said before, technology does creep up on you and you don’t even realise you’re using it. You have a kettle and you switch it on, and then suddenly someone buys you a little thing and you just press a button and it makes you a cup of tea. That’s technology isn’t it? Simple.” (P13_citizen)

3.4.4.2 Fear that technology will replace one-to-one care

Responses of some participants implied that they feared that technology would replace one-to-one care and that people would suffer as a result. When asked to consider what care meant to them, participants used words such as *personal*, *social* and *human*, and appeared to value the human interaction and relationship element of caring for another person or being cared for (section 3.1.1). Participants also emphasised the importance of one-to-one contact, particularly for people who are vulnerable to becoming socially isolated and lonely. There was some difference in opinion as to whether or not technology would increase or reduce people’s loneliness (section 3.3.4).

“Well I just don’t think you really understand how important it is for older people to have contact 1-2-1, to be able to touch one another. That’s the important thing that I can see and, in the future, how is it going to affecting other people’s lives if you’re going to speak to them and they can’t see each other’s faces. That’s the important thing at the moment for people, it’s loneliness. I don’t know how that fits into your little gadgets?” (P13_citizen)

Respondent 1: *“I take your point but, there a lot of very lonely people in the world, and if they’re lonely now, when for most people the contact is face to face, what’s it going to be like when we replace bits of your face-to-face with your technology? It’s going to get worse.”* **Respondent 2:** *“I think it’s going to get better...”* (Respondent 1; P13_citizen, Respondent 2; P1_GP)

One participant suggested that technology could have a visual element (such as video calling) to provide people with ‘visual contact’, which they suggested might make a difference to some people.

“It’s the ‘R Word’ - ‘Relationships’. Now a social worker would say, that’s the only thing we’ve got that’s different, that we get to know people really well. In their environment. People with quite chaotic lives sometimes that no one else, I wouldn’t really say understands, but has time to spend with you doing that sort of thing. Having said that, there are little bits of things that I’ve seen that have made a difference to people’s loneliness, and I take your point really well where you said about little bits of kit and we had a little tablet that didn’t work very well, I’d have to say, but the idea was, you could see someone who was a long way away and you could see them sometimes but you wouldn’t have that touch, I take your point, touch is important, but at least they had some sort of visual contact. It makes a huge difference to some people, I would say.” (P10_HBC)

It was also acknowledged that *technology was not necessarily intended to be a replacement for one-to-one care*, but rather a way of assisting people when such care is not possible.

Respondent 1: *“Well I just don’t think you really understand how important it is for older people to have contact 1-2-1, to be able to touch one another. That’s the important thing that I can see and, in the future, how is it going to affecting other people’s lives if you’re going to speak to them and they can’t see each other’s faces. That’s the important thing at the moment for people, it’s loneliness. I don’t know how that fits into your little gadgets?”* **Respondent 2:** *“I think it’s something that we need to be absolutely mindful of with progress of any form of technology...I’ll say that it isn’t a replacement with permanency, it’s a way of assisting when physical 1-2-1 is not possible. But absolutely 1-2-1 and being face-to-face with people is the way that we tend to want to receive care.”* (Respondent 1; P13_citizen, Respondent 2; P14_facilitator)

Respondent 1: “There is a thing with this around the way it is marketed, because technology needs to be the enabler. To connect people rather than it just be as a replacement. That’s the tool that can give someone the confidence to leave their house or do whatever they need to do, knowing that that support network is sat behind there. It’s how we kind of pitch that and encourage that interaction.” **Respondent 2:** “Nail on the head there for me in terms of, it’s not a replacement, if anything, it’s a supporting tool/enabler.” (Respondent 1; P8_ATC, Respondent 2; P14_facilitator)

3.4.5 Summary of potential barriers

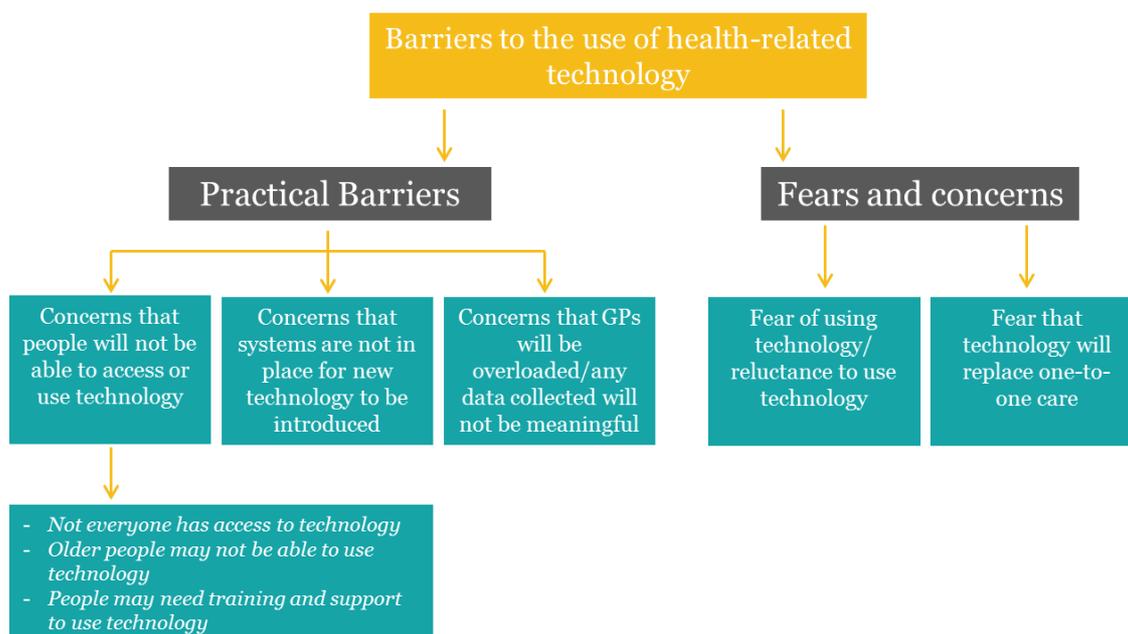


Figure 2: Diagram of potential barriers to the use of health-related technology which emerged during this focus group.

4 Summary of key findings

4.1.1 Important considerations for future health-related technologies

From the benefits and barriers which emerged during this focus group we can begin to understand some of the factors which must be taken into account when creating a health-related technology product. Some important considerations are summarised below:

Health-related technology should make life easier for people

“...it’s just got to make your life easier.” (P1_GP)

One benefit of health-related technology which emerged from this focus group was that technology could make life easier for people (section 3.3.2). Making life easier, whether for the individual with a health need or care-providers, was also stated to be an important requirement for health-related technologies when participants thought towards the future. As well as the individual with a health need, some participants questioned whether technology could also make life easier for the individual's family and/or caregiver. Technology which makes life easier by enabling people to manage their own health or simply carry out everyday tasks could help them to prolong their independence, maintain their way of life and keep or gain control over their life (section 3.3.2). This benefit is likely to be important, because the responses of participants suggested that they believe that prolonging independence is an important outcome of good care (section 3.1).

Health-related technology could make life easier for HCPs, but must not increase their workload

Participants' responses suggested that the introduction of health-related technologies could make the lives of HCPs easier, by providing them with the data they need to predict and prepare for hospital admissions, or prevent them in the first place by identifying health issues before an individual deteriorates (section 3.3.1).

Participants did note that health-related technologies which monitor an individual's health and transmit that data to their GP could result in the GP becoming overloaded with information. Although not stated by participants in this focus group, GPs may be reluctant to promote health-related technologies to their patients if they believe that it will make their life harder, given that the role of a GP is already very intensive. As one GP who was participating in the focus group suggested, the data transmitted by such devices may need to be 'filtered' and 'condensed' to ensure that GPs are only alerted to important information (section 3.4.3). Behavioural economics tell us that people prefer not to make a change from the way things are currently done (known as *status-quo bias*). Making it as easy as possible for HCPs to integrate health-related technology into their role could help overcome any feelings of *inertia* or reluctance to change. Furthermore, ensuring that GPs and HCPs have a positive opinion of health-related technology may be important if they are to play a role in recommending health-related technologies to their patients, so support and HCP-engagement activities may be needed if a new health-related technology is to be introduced.

Health-related technology should be easy to use and accompanied by support and training

A potential barrier to the use of health-related technology was that people may not be capable of using it. Reasons given for why this may be the case included that technology may not be available to some people or may not be designed specifically for people with health needs to use. Any health-related technology specifically designed to help individuals with health needs must be designed with the individual in mind and practical barriers, such as a lack of Wi-Fi signal, must be taken into account (section

3.4.1. There was also a concern that some people lacked knowledge of how to use technology and may fear using it. Support and training may therefore be required to educate people on how to use technology and to overcome any fear or reluctance they have towards using it (section 3.4.1). Participants suggested that such training may be more effective if it is aimed at getting older individuals comfortable with technology prior to them becoming unwell.

People may need reassurance that health-related technology is not a replacement for one-to-one care

When asked to consider what care meant to them, participants used words such as *personal*, *social* and *human*, and appeared to value the human interaction and relationship element of caring for another person or being cared for (section 3.1.1). This perception of care being a personal relationship or human interaction may be at odds with individuals' misconception of technology, which is often seen as being impersonal and remote. If people believe that care will suffer as a result of the introduction of health-related technologies then they may be reluctant to use them. There were indications that participants were concerned about the role that technology will play in care and it may, therefore, be important to highlight that technology is a "tool" and "enabler" to help people to manage their own or another individual's health (section 3.4.4.2). Given that many of the perceived benefits of health-related technologies which emerged during this focus group related to prolonging independence (section 3.3), it may help if technology is instead seen as a way to make people's lives easier and prolong the amount of time before people need more intensive, one-to-one care. Furthermore if people who provide care believe that one-to-one care is integral to their role then they may resist any change to the way things are currently done (their *status-quo*).

Respondent 1: *"There is a thing with this around the way it is marketed, because technology needs to be the enabler. To connect people rather than it just be as a replacement. That's the tool that can give someone the confidence to leave their house or do whatever they need to do, knowing that that support network is sat behind there. It's how we kind of pitch that and encourage that interaction."* **Respondent 2:** *"Nail on the head there for me in terms of, it's not a replacement, if anything, it's a supporting tool/enabler."* (Respondent 1; P8_ATC, Respondent 2; P14_facilitator)

"Just relating back to the earlier discussion about being able to get to people, at the right points. I think this bit of the conversation is kind of highlighting it into two sides. The first is formal care, the stuff that we do, and then there's that ability to care as a human. I'm not saying that they are two distinct, but I think in terms of how you sell this concept to citizens, you're going to have to make that distinction aren't you? It's a product that can possibly connect people, can make people more informed. For those people that don't have anything to do with care and health services, kind of, the immediate thing that they think of about care, I think, is the human side of it, rather than that formal service provision. So using the term care, I would avoid using the term care if you're trying to position the product." (P7_CCG)

Health-related technologies are unlikely to be one-size-fits-all

Finally, participants reiterated throughout the focus group that people need to have a *choice* in how they manage their health and that any *health-related technology is unlikely to be one-size-fits-all*. It will therefore be important to ensure that health-related technologies are “*co-produced*” *with the people who will use them*, which is a key aim of this project. One participant summed this up by stating that “*ENSAFE should start off by saying ‘What do you want?’*”.

“I think it’s important that, when it’s produced, it’s co-produced. A word we use all the time but I mean properly co-produced so you can tell the difference between something that’s been totally tokenistic and they want someone to tick a box. ENSAFE should start off by saying “What do you want”.” (P10_HBC)