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NHSX Adult Social Care Technology and Digital Skills Review

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Contents

Foreword	6
Executive summary	7
1 Introduction	13
1.1 Background and objectives	13
1.2 Notes about the presentation and interpretation of findings	14
1.3 Structure of the report.....	14
1.4 Acknowledgements	14
2 Skills summary	16
2.1 Scope of the research	16
2.2 Central themes from the research	17
2.3 Key findings by role in the ASC sector	21
2.4 Implications and recommendations	23
3 Technology summary	28
3.1 Scope of the research	28
3.2 Central themes from the research	29
3.3 Implications and recommendations	37
4 Methodology	41
4.1 Scoping the reviews	41
4.2 Contents of the reviews	41
4.3 Research audiences for the reviews	43
4.4 Research approach	43
4.5 Case studies	50
4.6 Expert reference group	51
4.7 Presentation of findings in this report	51
5 Digital skills and the use of digital technology in the adult social care workforce	53
5.1 Overall assessment of digital skills.....	55
5.2 Confidence using different types of technology	58
5.3 Attitudes to using digital technology in the workplace	69
5.4 Digital maturity of adult social care organisations.....	75
5.5 Access to digital technology at home and at work	81
5.6 Use of technology.....	88
5.7 Impact of COVID-19 on use of technology and need for digital skills.....	96
6 Learning and development about digital skills	100
6.1 Developing digital skills and support provision	102
6.2 Digital skills Learning and Development in the sector	107
6.3 Learning and Development Providers.....	119
7 People with care and support needs	124
7.1 Participant profile	125
7.2 Sources of information and advice about care and support	125

7.3	Use of, and experience with, consumer technology	125
7.4	Use and experience of digital technology for care, support and independence.....	127
7.5	Perceptions of the digital skills of the care workforce and unpaid carers	130
7.6	Views of how digital technology could be used in the future.....	131
8	Unpaid carers.....	134
8.1	Participant profile	135
8.2	Sources of information and advice on care and support services	135
8.3	Consumer digital technology.....	136
8.4	Digital care technology	138
8.5	Paid care workers	141
8.6	Using digital care technology in the future.....	142
9	Care providers	146
9.1	Care provider profile.....	147
9.2	Access to and use of digital technology	148
9.3	Digital maturity of care providers	153
9.4	Impact and outcomes of different types of technology	158
9.5	Barriers to accessing and using technology	163
9.6	Impact of COVID-19 on the use of technology.....	166
9.7	Future use of technology	168
10	Local authorities	173
10.1	Profile of participants	175
10.2	Digital maturity.....	175
10.3	National digital support offers	178
10.4	Use of digital technology of frontline staff and people with care needs	179
10.5	Information, advice and guidance (IAG) services	185
10.6	Working with care providers.....	187
10.7	Working with technology suppliers.....	189
10.8	Supporting local people	191
10.9	Looking to the future	192
11	Technology suppliers.....	195
11.1	Introduction.....	196
11.2	Overview of participants	197
11.3	Types, aims and target audience of technology.....	198
11.4	Aims and impact of technology supplied in terms of benefits, costs and productivity in customer organisations	202
11.5	Perceived barriers to the development and supply of care technology	204
11.6	Enablers to the development and supply of care technology	206
11.7	Learning and development offered	210
11.8	Impact of COVID-19 on demand for care technology and on business and operations..	213
11.9	Future design and development of technology for adult social care.....	216
12	Conclusion	222

12.1 Why the reviews were commissioned and what they involved	222
12.2 Evidence gaps and further research	223
12.3 Methodological limitations.....	225
12.4 Next steps	225
13Glossary	227

Foreword



Building a social care future that is fair, offers people choice and control over their care and promotes independence will require new and innovative thinking. Digital technology has huge potential to contribute to this future, as demonstrated by the role played by technology in helping to meet the challenges of the COVID-19 pandemic.

As we build back a better future for adult social care, it is vital we use evidence of what works to help shape our planning. The digital technology and digital skills reviews, commissioned by NHSX, highlight clear benefits of digital solutions for the social care sector and enablers for transformation, but also the challenges we need to address to achieve change that works for all.

I would like to thank all those who have contributed to and supported this important research. The reviews are a welcome addition to our knowledge and will help to ensure national and local government, care providers and industry can work collectively to place people who draw on care and support, their carers and the workforce at the centre of our social care digital transformation journey.

Gillian Keegan MP

Minister of State for Care and Mental Health

A blue ink handwritten signature of Gillian Keegan, written in a cursive style.

Executive summary

NHSX introduction

Digital technologies have tremendous potential to improve social care. They can extend the services on offer, giving people greater independence and control over their care and are proven to help support wellbeing. They can free up the time care workers now spend on administration tasks for more face-to-face care. And they can help care providers to operate more efficiently, so they can do more to look after those they support and their employees.

To help speed up the digital transformation of adult social care (ASC), NHSX recently commissioned reviews of the current extent of digital technologies and digital skills in the sector and how both could be scaled up. The reviews' findings and recommendations are summarised in this chapter.

The two reviews looked at the technologies currently in use and how they are used by representatives of the ASC workforce, people with care and support needs, unpaid carers, local authorities, and regulated care providers. These groups were also asked for their views on digital technologies and their levels of skill and confidence in using them. The research team consulted technology suppliers and service providers, and digital learning and development providers as well.

Among all these groups, the reviews found both general and group-specific barriers to and enablers of faster uptake of digital technologies. The findings support recommendations for accelerating digital transformation that have five cross-cutting themes:

- involving end-users in developing a sector-wide vision for digitising ASC, including strategies for each user group
- developing co-produced standards and systems to support implementation of this vision
- raising awareness and knowledge of digital technologies across both the ASC sector and among end-users
- improving access to funding and procurement support for digital investments
- defining the specific digital skills needed by user groups in the ASC sector and providing targeted training and support, including support for digital leaders.

Beyond NHSX, the findings and recommendations of the reviews are relevant to individuals and organisations across the ASC sector, including:

- people with care and support needs
- unpaid carers
- care providers
- local authorities
- companies developing or supplying digital technology to the sector

NHSX will continue to work closely with all groups that have contributed to the reviews to decide on next steps and determine how together we can shape the future of ASC digitisation, and which groups are best placed to take forward specific recommendations.

Findings from the reviews

Findings and recommendations as summarised by Ipsos MORI, the Institute of Public Care and Skills for Care:

Views on the benefits of digital technology¹

There were high levels of agreement among the workforce and the sector more generally that digital technology is important in ASC. Participants associated digital technology with a range of benefits including better quality of care and outcomes for people who need care and support and unpaid carers, improved working practices and improved efficiency. The main area where views differed was on the financial benefits of digital technologies. While participating technology suppliers explained that one aim of their products and services was to offer cost savings, care providers surveyed held mixed views about financial benefits. This included providers both with and without experience of implementing digital systems. Local authority staff thought the case for the non-financial benefits of technology, such as freeing up more time for person-centred care and improved quality of care, was more clear-cut.

The extent of digital technology use across the sector

The use of some, often basic, digital technology for care and support was widespread but mixed, suggesting its full potential is not currently being realised. Use of digital communication, including email and video calling, was common among all participants, the exception being people with care and support needs and unpaid carers aged 85 and over. Access to and use of technology was lower among care workers than other groups in the workforce. Consumer digital technology was also increasingly being used to deliver care and support or by those with care and support needs. A range of digital technology was used to deliver care, but awareness and knowledge of care specific digital technology was variable among the workforce and care providers, and fairly low among people with care and support needs and unpaid carers.

Encouragingly, among the workforce there was openness to using digital technology more widely. On the whole, frontline staff taking part in the research wanted to develop their digital skills to be able to do so. There was also recognition among ASC staff that there will be an increasing need for digital skills in the future. Acquiring them was seen as an essential part of career progression. Similarly, there was agreement among the local authorities and care providers interviewed that digital technology would be part of their future way of working.

The reviews also found evidence that the COVID-19 pandemic had increased opportunities to develop digital skills in the face of difficulties. The pandemic has led to an increase in the use of digital technology, particularly communications technology. However, it may also have increased disparities in use of technology by staff in different roles, with less increase in use among care workers than, for instance, registered nurses.

Digital skills and confidence

There was consensus among registered managers and others with responsibility for developing the digital skills of staff that there were gaps in the digital skills of the frontline workforce. The types of skills thought to need improvement were predominantly basic digital skills. The workforce's self-assessment of their own skills and confidence was largely driven by familiarity and opportunity to use technology, with confidence being higher in organisations that had adopted digital systems. The digital skills and digital confidence of people with care and support needs and unpaid carers varied greatly. However, as would

¹ See [glossary](#) for a full list of definitions

be expected, those who had been using technology for a long time, were using it for their work or had done in the past were more confident.

Age was an important factor concerning confidence. Among the workforce, younger groups exhibited higher levels of digital confidence, while older staff were more comfortable asking for support and were more interested in developing their digital skills. All participants with care and support needs who reported feeling not very or not at all confident in using digital technology were aged 65 and over.

Barriers to development of digital skills and adoption of technology

The review identified a range of barriers to developing digital skills and to the adoption and increased use of digital technology. At an individual level, the main barriers were:

- variation in familiarity and opportunity to use digital technology - this affected people's digital confidence
- awareness and knowledge about the range of digital technology available, and a perceived lack of need for digital technology felt by some people with care and support needs and unpaid carers
- anxiety and stress generated by the introduction of new technology felt by some of the frontline workforce, and by some people with care and support needs and unpaid carers
- a concern among some staff that digital technologies could replace face-to-face care and support, potentially impacting on quality, and a related reluctance to work digitally.

At organisation or sector level, the main barriers to the adoption of technology arose from:

- budget pressures making organisations less inclined to invest in technology, especially where financial benefits are not clear-cut or may be realised in another part of the health and social care system, or where organisations have competing priorities
- the lack of a digital vision for the sector to build on, with inconsistency in systems and a lack of interoperability
- the diverse nature of the demand for digital care technology (for example coming from SME care providers, local authorities, and people with care and support needs and their families), which was found to hinder the scaling and adoption of technology and limit purchasing confidence
- a need for stronger digital leadership in the ASC sector, and sufficient capacity and capability to introduce digital technologies into the sector and manage the related change.

Enablers

The reviews also identified specific enablers to help overcome these barriers to the development of digital skills and the adoption and diffusion of digital technologies across the ASC. These enablers are specific to each group making up the sector.

People with care and support needs and unpaid carers: For people with care and support needs and unpaid carers, the enablers are better signposting, information and advice about digital technology solutions available as well as hands-on support to adopt digital technology, learn new skills and troubleshoot. The work of technology companies in developing care technology should involve these groups so that solutions are co-produced.

Digital technology suppliers: For digital technology suppliers, the enablers are a clear and comprehensive vision for digital technology in ASC from government, with aligned government policies, data industry standards and enhanced interoperability. They would also welcome public financial support for the ASC sector and capacity building among smaller care providers. Opportunities to learn about the needs of the ASC sector and bridge the divide between the technology and ASC sectors are important to this group as well.

Care Providers: For care providers, the main enablers are more funding for investment in digital technologies, upskilling the workforce as well as help to understand the different technologies available. Alongside this, they would like support to review different digital technologies and develop a business case, advisory or consultancy services to decide what should be implemented, improved infrastructure (for example, reliable internet connectivity), and support to improve project and change management processes.

Local Authorities: For local authorities, enablers include 'Change Partnerships' (that is, partnerships between technology suppliers, independent change management consultants and local authorities), reducing digital exclusion locally, improving their care management systems and their digital infrastructure, and making sure digital technology is discussed with people with care and support needs and unpaid carers when conducting social care assessments or planning support. Support for improving workforce understanding of care technology and its potential would help build this last enabler.

ASC Workforce: For the workforce, enablers are improving awareness and understanding of how care technology can improve outcomes for people with care and support needs and unpaid carers, and supporting staff to further improve their digital skills. Developing basic skills through tailored training and peer support would ensure staff have a baseline of transferable skills that can allow them to feel confident using digital technology, understand how technology can complement care, and reduce concerns about impacts on face-to-face care. Improving access to digital technology in some parts of the sector would ensure staff have the opportunity to use and become familiar with common digital devices and systems.

Digital Leaders: For leaders within local authorities and care providers, the main enablers are building more confident digital leadership within their organisations, including developing skills in change and project management, so that organisations are better placed to adopt digital technology and support its use by staff. In the short to medium term having leadership roles with specific responsibility for digital transformation will be important. But in the longer term, digital innovation and implementation should become the norm and be embedded in leadership roles throughout all organisations.

ASC sector: For the ASC sector as a whole, a key enabler is ensuring resources are available when investment in technology needs to be made, even if the financial returns on the investment are realised in the medium to long term and/or elsewhere in the system. Support is needed to develop a technology market which works for suppliers and end users, given purchasers may be large or small organisations or individuals, with varying levels of knowledge and resources.

Recommendations

Based on the above findings, the review research team proposed recommendations which were discussed with ASC representatives involved in the reviews' expert reference group. They are relevant not only to NHSX, but also to other organisations within adult social care and to those developing or supplying digital technology to the sector. Further discussion of the recommendations can be found in [chapter 2](#) and [chapter 3](#).

Skills review recommendations

1. Introducing digital technology to the workplace with appropriate support should be encouraged, irrespective of the current digital skills of staff. Access to digital technology can encourage the development of digital skills. Greater use of technology is associated with greater confidence in it and more positive views.
2. A programme of myth busting, reassurance and culture change is needed, alongside changes to ways of working that focus on informing and raising awareness of digital technology, and communicating the benefits.
3. Digital leadership skills should be developed further in the sector so that digital leadership becomes a 'normal' part of a leader's role.
4. Efforts should be made to raise knowledge and awareness of the role, availability and suitability of digital technology in the direct provision of care.
5. There should be a continued focus on improving knowledge and confidence in data protection and information governance policies and procedures.
6. Greater collaboration and co-production of solutions would improve digital technology suppliers' understanding of the needs of the ASC sector and assist in embedding digital solutions within ASC.
7. Digital skills support needs to be tailored – for example, through peers within and across organisations - and should aim to alleviate the anxieties felt by some of the workforce around greater use of technology.
8. Digital skills should be incorporated into ASC recruitment, qualifications and career progression.
9. There is a need to define and achieve a consistent baseline of transferable digital skills across the sector.
10. There is scope to improve consistency in the quality and availability of support for developing digital skills across the whole country and all workplaces, regardless of size of organisation or job role.

Technology review recommendations

1. Building a national vision for a digital ecosystem or 'backbone' for digital technology in ASC would assist digitisation of the sector.
2. More support is needed to mitigate the impacts of a fragmented customer base for care technology (as most care providers are SMEs and people with care and support needs may also purchase technology).
3. Raising awareness and understanding of digital technology in ASC is crucial to increase take up and buy in. People in all parts of the ASC sector need access to information about digital technology in ASC.
4. The development of sector-wide standards and systems should involve end users of digital technology. These should be co-produced with people with care and support needs, unpaid carers and the workforce so that standards reflect how these groups currently use digital technology and could do in the future.
5. Investment in digital technology should be encouraged in view of both financial and non-financial benefits. Investment should be system-wide, including where benefits are felt outside the immediate ASC sector. Care providers and local authorities need to be supported in making a business case for digital technology.
6. Further research needs to be conducted in view of the constantly changing technology landscape and to cover areas out of scope of these reviews. In particular, more work is needed to explore the economic costs and benefits of digital technology in ASC, and how digital confidence, digital skills and use of technology across end users may be impacted by broader demographic factors, including ethnicity or socio-economic status.

1 Introduction

This chapter outlines the context for the research including background and objectives. It also provides notes on the presentation and interpretation of data, the overall structure of the report and acknowledgements to those who have supported the research.

1.1 Background and objectives

This report presents the findings of two reviews commissioned by NHSX in December 2020:

- a review on the adoption and scalability of digital technology in adult social care (ASC), undertaken by Ipsos MORI and the Institute of Public Care (IPC) at Oxford Brookes University. It was initially called the digital technology innovation review and is hereafter **described as ‘the technology review’**.
- a review of digital skills and capabilities in ASC, undertaken by Ipsos MORI, IPC and Skills for Care. It is hereafter **described as ‘the skills review’**.

The two reviews were conducted jointly as the topics covered were closely interrelated and to reduce the burden for organisations consulted as part of both reviews. The **technology review explores**:

- the current use and effectiveness of digital technology in ASC;
- the barriers and enablers to accessing digital technology among care providers and those who use care and support services;
- the barriers and enablers to supplying digital technology; and
- the potential use for digital technology in the future.

This includes understanding how technology may help to support unpaid carers, improve the quality and efficiency of care, and support and promote independent living.

The **skills review explores**:

- digital skills across the ASC workforce, with the aim of establishing a baseline level of digital skills through an overall assessment of confidence in undertaking tasks using digital technology
- experiences of accessing learning and development (L&D) in the use of digital technology
- the barriers and enablers to developing digital skills and capabilities; and
- the anticipated need for digital capabilities in the future.

There is a significant evidence gap around the digital capability of the social care workforce, including current levels of digital skills, understanding of future need, and current provision and outcomes of learning and development. This research aims to cover these evidence gaps and provide a stronger, more comprehensive body of evidence to help plan future strategy.

The focus of both reviews is on digital technology or skills. Where we refer to technology or skills in this report we mean digital, unless it is explicitly noted that the reference is to other types of technology or skills.

1.2 Notes about the presentation and interpretation of findings

This report presents the data from the technology review and skills review in ASC. This consisted of both qualitative and quantitative research. The findings from these two research methods have been integrated throughout the report. The methodology is explained in greater detail in [Chapter 4](#) of this report.

This report presents quantitative data from telephone and online surveys conducted by Ipsos MORI. These findings can be identified by the use of percentages or reference to survey participants.

Qualitative research enabled more in depth and nuanced views on digital technology and skills in the ASC sector to be taken into account. Findings from the qualitative research can be identified by references to participants in depth interviews or focus groups.

1.3 Structure of the report

The report is structured to allow readers to understand the findings for each of the reviews while also easily finding the results for each participating audience across the two reviews, and exploring overlapping issues which emerged in both reviews.

The summaries for the technology review and skills review (chapter 2 and 3) are designed to provide an overview of central themes, key findings, implications and recommendations for each review. The two reviews are closely interconnected and where there are key overlapping issues they are presented in both summaries. The themes been pulled into separate summaries to ensure that each aspect – innovation in technology and development of digital skills – are fully considered.

Chapter 4 provides detail on the methodology and approach used for the research.

There are separate chapters (chapters 5 to 11) for each of the groups involved in the use of technology in ASC, some of which are focused more on digital technology use, some on skills and some on both. These chapters cover: digital skills in the ASC workforce², learning and development in the ASC workforce, people with care and support needs, unpaid carers, care providers, technology suppliers, and local authorities. Case studies, highlighting useful examples of how digital technology can be adopted and digital skills developed in a real-world context are also [published alongside the report](#). It should be noted that similar topics were covered with different audiences (for example, use of digital technology in the workplace was explored with both care providers and the ASC workforce). Sometimes the figures may differ between chapters if different groups were providing their opinion or sharing their experience.

1.4 Acknowledgements

Ipsos MORI, IPC and Skills for Care would like to thank all of those who participated in the research and shared their views with us. We would also like to thank NHSX for their help and guidance throughout the research. Our thanks also go to the Local Government Association, which is working closely in partnership with NHSX to support adult social care digital skills and technology adoption through the Care and Health Improvement Programme, and has been involved and supports this research.

Members of the Expert Reference Group (ERG) have given valuable input by sharing their views with us and helping to shape and guide the research. This includes: the Homecare Association, Think Local Act Personal, Local Government Association, Future Care Capital, TEC Service Association, Royal College

² Findings from research with care providers, frontline workforce (social workers, OTs, nurses, and care workers), and principal social workers and principal OTs.

of Occupational Therapists, Society for Innovation, Technology and Modernisation, National Care Association, British Association of Social Workers, Associated Retirement Community Operators, Health Education England, Care Software Providers Association, Care Quality Commission, Association of Directors of Adult Social Services, Registered Nursing Home Association, Carers UK, Age UK, the National Care Forum, the Disabled Living Foundation and NHS Digital.

A range of organisations contributed to the research by sharing invitations to take part with their members and stakeholders. We are grateful for input of this type from members of the ERG and the following other organisations: Royal College of Nursing, the Nursing and Midwifery Council, Care England, Association of Mental Health Providers, The Health Foundation, Learning Disability England, KeyRing Living Support Networks, AbilityNet, The Care Workers' Charity, Care Association Alliance, Digital Social Care, ACE (Anglia) Ltd, Grapevine Coventry and Warwickshire Ltd, and Housing Associations' Charitable Trust (HACT).

We would also like to thank colleagues who assisted with the research including Rachel Worsley, Michelle Gray, Devina Sanichar, Tehara Punchihewa, Viral Shah, Darren Thickpenny, Neil Frew, Christine Watson, Tobi Stadler, Rachel Walker, Roomana Ali Bamboat, Viv Young and Lucy Evans.

2 Skills summary

This summary provides an overview of the central themes from the skills review. The review explored access to and use of digital technology, and digital skills and capabilities among the adult social care (ASC) workforce, and was carried out by Ipsos MORI, the Institute of Public Care (IPC) and Skills for Care. It primarily provides the overarching themes from the research with the ASC workforce (explored in detail in chapters 5 and 6) but also draws on key themes from the research with care providers, local authorities, digital technology suppliers and learning and development providers where relevant.

The summary for the related review of digital technology in ASC is provided in [Chapter 3](#).

Rapid evidence reviews were conducted at the start of the technology and skills reviews and key points from these have also been brought in. These reports are also available online.³

2.1 Scope of the research

The digital skills review set out to fill a significant evidence gap around the digital skills and capabilities of the adult social care workforce. Specifically, it aimed to explore digital skills across the ASC workforce; experiences of accessing learning and development (L&D) in the use of digital technology; the barriers and enablers to developing digital skills and capabilities; and the anticipated need for digital capabilities in the future.

There is currently no single agreed definition of digital skills in the adult social care sector but the various approaches were explored in the evidence review for the digital skills project.⁴ The skills review focused on building a 360 degree picture of current digital skills and capabilities, including: knowledge and awareness of digital technology; levels of confidence, and attitudes towards digital technology; organisational factors influencing staff such as the role of leadership; perceptions and experiences of barriers to developing skills as well as motivators and incentives.

The audiences involved in the digital skills review were:

- frontline workforce groups: care workers, social workers and principal social workers, occupational therapists (OTs) and principal OTs, nurses working in ASC, and administrative staff
- registered managers and senior decision makers within care and support services
- local authorities – specifically, those individuals responsible for learning and development
- digital learning and development providers.

Interviews with people in receipt of care and support and unpaid carers were also carried out, which included some discussion of the skills of the workforce. In addition, the technology review included research with digital technology suppliers and care providers and key findings related to skills from these have also been incorporated in this summary.

More detail about the audiences involved in both reviews is provided in [Chapter 4](#) and appendices.

³ [Rapid Evidence Review for the Technology Review](#)
[Rapid Evidence Review for the Skills Review](#)

⁴ [Rapid Evidence Review for the Skills Review](#) (p1-2, 7-14)

2.2 Central themes from the research

The findings from the research are encouraging. There were high levels of agreement that digital technology plays an important role in ASC; digital technology was associated with a range of benefits including better quality of care and outcomes for people with care and support needs and unpaid carers, improved working practices and improved efficiency. There was also openness to using digital technology more widely in the sector, and staff taking part in the research on the whole wanted to develop their digital skills. There was also recognition that there will be an increasing need for digital skills in the future, and it was seen as an essential part of career progression. Although the COVID-19 pandemic has led to huge challenges for the ASC sector, there is evidence that it has increased opportunities to develop digital skills in the face of difficulties.

However, there was acceptance across all groups that there is scope to improve digital skills among the workforce, particularly around:

- developing basic skills to ensure staff have a baseline of transferrable skills that can allow them to feel confident using digital technology
- improving the knowledge of the use, application and benefits of different digital technologies in social care
- improving access to digital technology in some parts of the sector to ensure staff have the opportunity to use and become familiar with operating digital devices and systems
- building more confident digital leadership, including developing skills in change and project management so that organisations are better placed to adopt digital technology and developing support provision for staff. This is needed until digital technology becomes embedded into working practices.

These points are all discussed below, focusing on the central themes from this element of the research.

Variation in familiarity and opportunity to use digital technology are the main barriers to developing digital confidence (rather than lack of digital skills). Across the research, where there was limited access to digital technology there was generally lower confidence in using digital technology, and lower positivity towards it. Conversely, those who were using digital technology more were more positive about the use of digital technology in the delivery of ASC,⁵ and reported higher levels of confidence. Confidence was also higher in organisations that used more digital technology in the pandemic, which further suggests that the opportunity to use digital technology is key for building awareness and confidence. Limited opportunity to use digital technology day-to-day was also a barrier to developing skills. For example, some frontline staff reported that because they do not use digital technology regularly, they were unable to practise what has been taught, and therefore embed new skills from learning and development (L&D) they had received.

Although use of digital technology was widespread across all roles, those in more senior roles including management, as well as social workers and OTs, tended to use digital technology more and be more confident in its use. Care workers consistently reported using digital technology less in their day-to-day roles than other members of the workforce (82% of care workers said they had the digital technology they need to communicate digitally, compared with 93% of registered managers and 95% of

⁵ For example, that digital technology is important, that it helps with communication with colleagues and people they support, and that digital technology can help people do their job better or more efficiently

administrative staff), and felt less confident using it ([with 53% of care workers falling into the 'secure' or 'intermediate' overall confidence level compared with 77% of registered managers and 74% of registered nurses](#)). Although still positive about technology overall, care workers were less positive than other staff about digital technology's wider rollout in the sector ([79% of care workers agreed that digital technologies are important in adult social care versus 87% or more of those in other job roles](#)).

Generally, access to digital technology and the internet was widespread, though small pockets of low use of digital technology and poor access to the internet outside work remained. This small group may face persistent barriers to improving their digital awareness and confidence in using digital technology in the workplace. The widespread use of personal devices for ASC work may be a particular issue for this group. **Staff reported that they frequently use their personal internet** (Wi-Fi or mobile connections at home for work, or personal data packages) **and personal devices for work related tasks** – nearly two-fifths (39%) of those surveyed who used digital devices at work said they [use their own device at work](#). This may raise some concerns about data security, and suggests that gaps in the provision of digital technology in the sector are in some cases being filled by individuals who may be paying for personal devices, internet, and data packages out of their own salaries. It is possible that the need to increase the use of digital technology for communication at short notice in the pandemic has contributed to the use of personal devices for work. Unreliable internet access was also a common problem reported in the research – this was the main reason for lack of access to the internet rather than availability of digital devices ([39% of those surveyed without internet access 'all the time' said this is because internet access is not available in all parts of their workplace](#)).

Limited access to Wi-Fi and digital devices, and associated lack of confidence in using digital technology such as video calling software needed to access online learning, were also barriers to accessing L&D. This has become more difficult during the pandemic when more training and support has been provided online.

Positively, access to and use of digital technology has increased during the pandemic (particularly digital communication technology), though there are some signs that this is reinforcing existing disparities between professions. The greatest change in use has been among people in managerial roles (88% of registered managers surveyed said there has been greater use of digital technology in their workplace since the pandemic) or where communication with different professionals is an important part of their role (e.g. social workers, 90% of whom⁶ surveyed said there is greater [use of digital technology now than before the pandemic](#)). There has been less of an increase for care workers (62%). Increases in digital skills associated with the pandemic were also identified in the evidence review.⁷

Age is perceived to be an important factor, and while younger groups exhibit higher levels of digital confidence, older staff were more comfortable asking for support and were more willing to develop their digital skills. Differing levels of confidence by age was shown in the evidence review⁸ and primary research. Though there were relatively high levels of confidence with using various digital devices in all age groups, younger people reported higher levels of confidence than older staff in almost all aspects. Younger participants in the survey were more likely to be 'secure' or 'intermediate' in their digital confidence ([62% of those aged under 18 to 34 compared with 37% of those aged 55 and over](#)) and less likely to be 'pre-novice' (21% [of those aged under 18 to 34 compared with 43% of those aged 55 and over](#)). There were also some differences in use of digital technology by age; younger groups

⁶ Including principal social workers.

⁷ [Rapid Evidence Review for the Skills Review](#) (p19-20)

⁸ [Rapid Evidence Review for the Skills Review](#) (p17-18)

were more likely to report using a range of technologies in the delivery of frontline care than older age groups. [Over four-fifths](#) (84%) of frontline staff surveyed aged 18-34 used tablets or smartphones to deliver care, versus 77% of those aged 35-54 and 54% of those aged 55 and over. In the depth interviews and discussion groups, older participants often put their current or existing lack of skills or confidence down to their age. Positively, older staff were more likely than younger staff to feel comfortable asking for support and more likely to want to develop their digital skills, suggesting there is scope for them to develop and improve their skills. Older participants said they were willing to learn new digital skills if the technology is explained to them in a way that is meaningful to them.

The age profile of workers who participated in the review varies by role with care workers being younger than managers and registered professionals on average.⁹ This means there is a complex relationship between digital skills, age and role. Some of the differences by age and role may be hidden in the analysis, as more senior roles tended to be more confident, but also tended to be older. Overall, the age profile of participants in the workforce survey is broadly consistent with the age profile of the workforce as a whole, though the survey may under-represent older groups.¹⁰ The implication of this is that the survey may over-state overall levels of digital confidence because proportionally fewer participants were in the older age groups (55 and over) compared with the actual workforce.

Despite high levels of agreement that digital technology plays an important role in ASC, there are barriers among some of the workforce to developing digital skills and to increased use of digital technology. Participants' expectations around what constitutes adequate digital skills were primarily based on whether they were able to do what is currently required for their jobs. Participants were generally not thinking about carrying out more complex tasks using digital technology, or the broader landscape of digital technology, beyond their day-to-day work. In addition, digital technology was associated with anxiety and stress for some, while others reported the introduction of technology, if not well-managed, may have a negative impact on staff wellbeing. This was derived from a range of factors including: unknowns surrounding digital technology and what to do when things go wrong, previous poor experience of digital technology (e.g. malfunctioning digital technology, lacking support to use technology, prolonged time to get used to technology), and low digital confidence. A concern was raised by some, that digital technologies will replace face-to-face care and support, with almost [four in ten \(38%\) of staff surveyed being worried about this](#). Those overseeing staff, including registered managers and staff in local authorities, also noted that there was some resistance to working digitally within the workforce.

These issues are likely to remain a key barrier to the adoption of digital technology, developing skills, and building digital confidence— for example registered managers noted that they can be a 'block' for staff adapting to a digital way of working. However, people who have had a higher exposure to digital technology were more positive about its importance in the sector; and recent exposure to digital skills L&D correlated with more positive views about how digital technologies can improve the overall health and wellbeing of the people with care and support needs (for example, 71% of participants who received digital skills L&D in the last 12 months agreed digital technologies can improve the overall health and wellbeing of people with care and support needs, compared to 60% who had not received recent digital skills L&D). This suggests that providing staff with more opportunities to work with digital technology or develop their digital skills is likely to help overcome some of these barriers.

⁹ For example, after weighting 14% of care workers responding to the survey were 55 and over compared with 23% of social workers, 26% of registered nurses, 30% of registered managers and 31% of OTs.

¹⁰ Skills for Care's Adult Social Care Workforce Data Set (ASC-WDS) 2020 which includes a breakdown of the adult social care workforce by age shows that 27% of the adult social care workforce are aged 55 and over, compared with 17% of participants in the workforce survey.

Knowledge and awareness of the role of digital technology in the direct provision of care and support could be improved. Though a range of digital technology is currently being used to deliver care, only 24% of the ASC workers surveyed strongly agreed that they have a good understanding of the range of technologies available to meet the needs of people they provide care for, with [45% tending to agree](#). Social workers (including principal social workers) were most likely to *disagree* that they have a good understanding of the technologies available for the delivery of care ([17% of this group compared with 9% overall](#)). Care coordinators and brokers were more likely than other groups to say that they would like to improve care using new digital technology but felt they don't know enough about digital technology and its potential uses ([53% compared with 39% for staff overall](#)). Since social workers and coordinators and brokers have a key role to play in care planning, their sense of lack of knowledge and confidence about how technology can be used to improve care may represent a barrier to the wider adoption of digital technology across the sector.

There was a widespread view that the L&D and support offer needs to build confidence around basic and transferrable digital skills. This was emphasised by managers and non-managers alike, as well as L&D providers who reported that they tend to focus on this in their L&D offer. People working in local authorities also noted that a major priority has been investing in initiatives to increase the digital skills and confidence of the frontline workforce through, for example, peer support. In local authorities and care providers and amongst the workforce, opportunities for one-to-one support from peers in the form of buddying or digital champion schemes was felt to be particularly effective, not just for the transfer of skills, but also for helping to tackle attitudinal barriers.¹¹ Feedback from staff suggests that in the absence of this type of tailored support, the L&D offered can feel too advanced, exacerbating feelings of stress and anxiety associated with digital technology. There was therefore a desire to see more tailored L&D on offer.

L&D providers also pointed out that they were currently not able to deliver national offers as local authorities may have differing priorities, funding approaches and eligibility criteria for different L&D courses. They would like to see more national consistency in terms of how priorities for digital skills learning are determined and implemented.

In terms of format, there was an important role for dedicated training sessions (face-to-face or virtually), supplemented by online resources and on-the-job learning. The latter was seen as particularly important in ensuring staff have the opportunity to embed learning. However, as described above, barriers associated with remote learning also need to be considered: a lack of digital technology to access remote learning, and lack of digital skills to access online resources and training can prevent people from participating and engaging with L&D.

Though the staff surveyed reported that they are well informed about various processes to store, use and share data securely, there is evidence that this knowledge is sometimes limited. For example, over a quarter (28%) said they know 'just a little' or do not know which documents need to be protected with a password; almost one in five (19%) said they know 'just a little' or do not know about the rules their employer has around digitally storing personal data. Furthermore, registered managers and others with management responsibilities reported skills gaps in their organisation in relation to [information governance](#).

There is a need to build stronger digital leadership within organisations, i.e. leadership in the introduction of technology and in change management when technology is adopted. This was

¹¹ [Rapid Evidence Review for the Skills Review](#) (p24-25)

identified in the evidence review¹² and in the primary research. The research suggests there has been some progress in the proportion of the workforce working digitally. Participants in the survey carried out as part of this review were predominantly working in a mix of digital and paper-based systems. A third of participants in the survey reported working in a completely digital environment; one in nine mainly paper-based; around half said both [digital and paper-based systems are used](#).¹³ Previous research carried out in 2018 identified about a third in each category (mainly paper, both, mainly digital systems).¹⁴ This review carried out in 2021 suggests that although the proportion working in a mainly paper based environment has declined, the percentage working in an environment that relies on digital systems has not increased in the last three years, suggesting there remain barriers for providers to make the leap to completely digital systems.

Thinking about digital leadership more broadly, participants in the research exhibited some ambivalence around the extent to which their organisations display strong digital leadership. For example, only [about half](#) (52%) agreed there was strong leadership in place for digital planning and innovation in their workplace. A higher percentage (62%) said that their employer looks for ways to use new digital technology to improve care delivery. Participants in the qualitative research also reported that they sometimes do not feel supported by management in using digital technology. [L&D therefore needs to extend beyond courses](#) and ensure there is sufficient support in place within organisations to develop digital skills and confidence; through management, peer learning, and signposting to wider resources.

However, there is also some evidence that digital leaders lack skills to lead digital implementation and provide this support. For example, while most managers look for ways to use new digital technology to improve care, [nearly half surveyed \(47%\)](#) said they lacked knowledge about digital technology and its potential uses. A lack of digital awareness among leaders of care providers was also noted by L&D providers as a barrier to seeking digital skills learning.

2.3 Key findings by role in the ASC sector

The research revealed notable differences by job role in knowledge, access to and use of digital technology, and associated confidence and attitudes. These differences are discussed in detail throughout this report and a summary is provided below.

Care workers¹⁵ reported lower confidence in carrying out a range of different tasks than staff in other job roles, and this was found among care workers in care homes as well as homecare workers. They were more likely than other professions not to use digital technology regularly in their roles. For example, they were less likely than others to use smartphones or laptops in their role and were the least likely to say they have the devices they need to communicate digitally. If care workers were using a digital device at work, they were more likely than those in other roles to be using a personal device rather than a work device.¹⁶

¹² [Rapid Evidence Review for the Skills Review](#) (p3, p27)

¹³ These figures differ from those from the survey of care providers in which: 73% agreed their organisation used technology to support the care provided, 69% used a dual approach of digital and paper systems to store and manage information, 26% used mainly digital systems and 5% continued to rely mainly on paper-based systems for managing information.

¹⁴ Adult social care data and cyber security programme report 2018-19 (published in 2019) (See Rapid Evidence Review for the Technology Review for more detail in relation to this project)

¹⁵ Care workers who participated in the research came from a range of settings including care homes (with/ without nursing); day care services; homecare settings. More detail on the participants is provided in the appendix.

¹⁶ There were differences by the setting that they worked in with homecare workers being more likely than those working in care homes to communicate digitally with colleagues regularly, use smartphones rather than tablets in their work and to be using their own device.

Care workers were also less positive about the leadership in place within their organisation to develop digital skills or opportunities. L&D opportunities can also be limited for this group. While most care workers were supportive of using digital technology (with no difference in views between workers in care homes and homecare), out of all job roles they were the least likely to think digital technologies are important in adult social care, that digital technology can help them communicate, or do their jobs better or more efficiently.

Social workers participating in the research were more likely than those in other roles to be working in settings where information is managed digitally, typically using up-to-date digital technology on a regular basis to communicate with others over the internet. They were also highly likely to use a smartphone at work, and likely to use the internet to work from home at least some of the time. They often reported intermediate or advanced skills in using digital technology, particularly relating to communication.

Alongside OTs, social workers reported that they commonly use assistive digital technology to support people with care and support needs. This group were also keen to learn more about how assistive technologies can be used in their role, for example through attending online courses about what technologies are available. Social workers also reported lower confidence on some aspects of using consumer-facing and digital care technology. They were less confident helping people receiving care and support to use consumer digital technology, and were also less confident using digital care technology to provide direct care and support. The survey also showed that a quarter of social workers had 'pre-novice' levels of confidence in basic digital skills.

OTs participating in the research reported that they often use digital devices such as laptops and smartphones in their day-to-day roles. They also often work from home, particularly since the COVID-19 pandemic, and have had to develop new skills in undertaking assessments via video call. They also reported a good awareness and familiarity in using assistive digital technology to support people receiving care.

In the qualitative interviews, OTs were among the most confident in using digital technology and had good awareness of what care technologies are available.

Registered nurses had high levels of awareness of digital technology to provide direct care, such as personal alarms or monitoring equipment fitted with sensors. Nurses reported using these regularly and high levels of confidence were associated with this.

Nurses were highly supportive of digital technologies in the sector, and many said they are using more new technologies compared with prior to the COVID-19 pandemic. They would like their workplace to use more digital technology for work planning and care management, but at the same time they were the group most likely to say their employer uses out of date digital technology.

Registered managers exhibited a good level of understanding about different technologies available to ASC and reported that they felt confident using a wide range of technologies in their role. They were also the group most likely to use the internet in their role and were highly likely to be communicating digitally and felt confident in their ability to do this.

Many registered managers were working in settings using paper-based (rather than or in addition to digital) systems to manage information and would like their employer to make greater use of digital technology in work planning and care management.

People with care and support needs and unpaid carers interviewed for this research found it difficult to judge the digital skills of care and support workers. They tended to assume that the workforce had skills because they used digital devices, though they were not always aware of how and why the care workers were using these devices in the delivery of care. Only those who were close enough to their care and support workers would feel able to ask for support with their own consumer technology. People with care needs and unpaid carers in the depth interviews and focus groups did not consider that discussing how technology could help with their care was part of the role of care and support workers, and so had not discussed this with them (see [Chapter 7](#)).

Digital technology suppliers felt that overall, the digital skills of the frontline workforce were not the main barrier to the adoption of digital technology. Greater use of consumer digital technology means that if appropriately designed, user skill is not a barrier to digital technology use. Instead, their perception was that skills in choosing and purchasing digital technology and how to implement the digital technology used in an organisation were more important gaps. In the survey with digital technology suppliers, [23% reported difficulty identifying and reaching customers](#) to find out about their needs and 10% reported a lack of awareness within their company of the requirements from the adult social care sector. The survey showed that most digital technology suppliers decide on the types of digital technology and customers to focus on based on collaborations with local authorities, NHS or government (66%), collaborations with care provider organisations (62%) or from needs reported by customers on an ad-hoc basis (65%).

2.4 Implications and recommendations

With these overarching themes in mind, the research points to a number of implications and recommendations for developing the digital skills of the ASC workforce. These have emerged from the research findings and are put forward by the independent organisations carrying out the research (Ipsos MORI, IPC, Skills for Care). The recommendations are intended to provide a starting point for discussion, reflection, and planning and to be of interest to a wide range of stakeholders in ASC – not only to NHSX, but to other organisations within adult social care and those developing or supplying digital technology to the sector. They have been reviewed and discussed already by the expert reference group for the research.

Recommendation 1: Introducing digital technology to the workplace with appropriate support should be encouraged, irrespective of the current digital skills of staff. Access to digital technology can encourage the development of digital skills. Greater use of digital technology is associated with greater confidence in it and greater positivity towards it. Organisations should therefore look for ways to increase opportunities to use digital technology, using an agile approach and starting with small tasks to build familiarity and confidence, rather than waiting for digital skills to develop before introducing digital technology. Care workers are particularly likely to benefit from greater access to digital technology, as their current use is lower than other groups, but this needs to be relevant to their role and it needs to support (rather than hinder) them being able to provide direct care to people. The introduction of digital technology needs to be managed and supported (see below) as some members of the workforce will find it challenging or stressful. This introduction could build on the workforce's familiarity with their own devices, though where staff are required to use their own devices, robust 'bring your own device' policies could help to ensure data protection and security concerns are addressed, and staff are comfortable with how they are expected to use their own personal devices and the cost implications for them. The digital ecosystem will need to be considered alongside the ASC sector's future ambitions around how and where care should be delivered, and it will also need to consider the diversity of models within the system.

Recommendation 2: A programme of myth busting, reassurance and culture change is needed, alongside changes to ways of working that focus on informing and raising awareness of digital technology, and communicating the benefits digital technology has for care organisations, staff and people using care and support services and unpaid carers. The introduction of technology such as medication prompts requires a change in commissioning arrangements, changes in the activities of care workers and providers and changes for those receiving care. This means that support for introducing and accepting this level of change is needed throughout the ASC system, with a focus on shared language and standardisation to support improved information sharing. This should facilitate greater buy-in from the workforce and sector leaders. Crucially, this needs to reassure staff, people receiving care and support and unpaid carers. It should also challenge misplaced perceptions about the drawbacks of using digital technology more widely, including the impact on face-to-face care and a perceived reduction in care jobs. For example, it might be useful to emphasise how digital technology can complement and support care delivery, in many cases freeing up more time for direct care.

Recommendation 3: Digital leadership skills should be developed further in the sector so that digital leadership becomes a ‘normal’ part of a leader’s role. L&D for staff with more advanced digital skills should focus on raising awareness of what digital technology exists, how to judge which digital technology to invest in, make a case to budget holders, and maximise the potential of the digital technology they have. Important skills will also include how to manage the transition during implementation of digital technology within an organisation, and how organisational leadership and culture can become more supportive to empower staff to use digital technology to their full potential and develop their skills. This has been an approach taken in some local authorities – for example providing digital advisors across a locality to support organisations. There is an opportunity to learn from what has worked in these scenarios¹⁷ and from related activities such as the NHSX [‘What Good Looks Like’ framework](#) and the governance of integrated care systems (ICSs).

Recommendation 4: Efforts should be made to raise knowledge and awareness of the role, availability and suitability of digital technology in the direct provision of care. Staff, particularly social workers and occupational therapists, would benefit from more information and resources to help them understand what care technologies are available and how these could be used to help those they support, and how to articulate the benefits when writing care plans, advocating a particular care package, or exploring the introduction of digital technology in care settings. Increasing knowledge and awareness could also result in the ASC workforce being better able to support people with care and support needs, as well as unpaid carers, who are using digital technology – therefore, supporting digital inclusion more widely and helping people to remain independent. Barriers to using these technologies will still exist, for example budget constraints limiting the extent to which these technologies can be used in different settings. However, improved knowledge and experience of seeing how digital technology can improve the lives of people with care and support needs may enable staff to become greater advocates for digital technology in the direct provision of care, and more active in seeking digital solutions. For social workers and OTs, who have a similar set of digital skill requirements and a role in identifying solutions to meet people’s needs, there may be opportunities for shared learning through new and existing networks and peer support, about how digital technology can be used to improve outcomes and independence.¹⁸

¹⁷ This is the focus of the digital care advisors case study published alongside this report.

¹⁸ RCOT has a resource page for digital occupational therapy that provides an example of knowledge sharing (<https://www.rcot.co.uk/node/3507>)

Recommendation 5: There should be a continued focus on improving knowledge and confidence in data protection and information governance policies and procedures. Although understanding and knowledge of this was widespread, given its importance, there is scope for a deeper and stronger understanding of good governance among managers and leadership as well as the workforce as whole. The implementation of digital technology in adult social care raises complex issues in relation to informed consent, handling and storage of personal data and use of personal devices that are ethical as well as concerned with data protection and cyber security. The Data Security and Protection Toolkit¹⁹ and the Better Security, Better Care programme²⁰ will assist with this for care providers and organisations, but the understanding needs to be shared across the workforce.

Recommendation 6: Greater collaboration and co-production of solutions would improve digital technology suppliers' understanding of the needs of the ASC sector and assist in embedding digital solutions within ASC.²¹ Digital technology suppliers decide on their focus in collaboration with ASC organisations, to ensure technologies are attractive and accessible to people with care and support needs, and that future technology is based on needs within the ASC. However, there is scope to improve the depth of shared knowledge about needs and intended outcomes and how digital technology could successfully meet them. The rapid evidence review identified the need for 'bridge' professionals who connect the digital technology and ASC sectors and improve the success of digital implementation. Such professionals can act as 'translators between the barriers of different professional 'worlds' – for example, social workers and the technical'.²² Implementation of this recommendation needs to consider how this work of co-production can be resourced by the ASC sector.

Recommendation 7: Digital skills support needs to be tailored – for example, through peers within and across organisations - and should aim to alleviate the anxieties felt by some of the workforce around greater use of technology. At an organisational level this could promote the sharing of learning, and at an individual level should aim to reduce the stress and anxiety associated with using digital technology. This should focus on ensuring people know who to go to when they have a problem and overcome the issue of digital technology being seen as intimidating, difficult to use, and jargon heavy. Digital buddy and champion programmes have a key role to play in providing appropriate one-to-one support. Peer-to-peer networks and peer digital champions can reduce the sense of intimidation, ensure the experiences of those seeking support are understood and assist with the culture change and myth busting described in recommendation 2.²³ This form of support can also enable the workforce to identify broader uses for technology.

Recommendation 8: Digital skills should be incorporated into recruitment, qualifications and career progression so that people know it is an expectation and benefit of their role. This should focus on supporting people in developing the necessary skills and confidence for their ASC careers so as not to exclude people who do not have these skills already, or who are anxious about digital technology. A framework will be needed for recruiters to assess confidence and competence, while ensuring equal opportunities for candidates. Digital skills should be built into the induction of workers and be among the required skills for care certification, and the level 5 award for registered managers. In addition, continuing professional development and appraisal and re-registration processes need to include digital skills and awareness of digital technology for those who have worked in the sector for a while, starting before digital skills were required. As digital confidence is lower among older workers, L&D is needed among

¹⁹ <https://www.dsptoolkit.nhs.uk/>

²⁰ <https://www.digitalsocialcare.co.uk/data-security-protecting-my-information/better-security-better-care/>

²¹ [Rapid Evidence Review for the Technology Review](#) (p14-15)

²² [Rapid Evidence Review for the Technology Review](#) (p15)

²³ The digital care advisors case study provides an example of the introduction of digital care advisors in a local authority.

existing and senior staff, not just for newer staff who may be younger.²⁴ Consideration needs to be given to how this continuing professional development in digital skills can be consistently provided for care workers.

Recommendation 9: There is a need to define and achieve a consistent baseline of transferable digital skills across the sector. There was a range of digital confidence across the workforce with over half of those surveyed having at least intermediate confidence across a variety of digital activities, but over a quarter having limited confidence with basic digital activities. Overall, only 40% of the workforce was categorised as digitally 'secure'. Registered managers identified gaps in the skills of their staff including in operating digital devices and supporting people with care needs in the use of digital technology. Parts of the workforce need L&D in basic digital skills to build confidence, particularly older workers across job roles. This includes support with tasks such as setting up a meeting in MS Teams or Zoom, knowing how to find information on local systems or using the internet for communication and information gathering. L&D needs to focus on the transferability of skills, and ensuring staff are aware of this, so they have the confidence to apply knowledge of one digital system or technology to other products. Digital skills need to be built up incrementally, ensuring the workforce have been given the opportunity to master 'the basics' before moving on to more 'advanced' uses of digital technology, with tailored support at each stage.²⁵ Even among those who already have advanced skills, further support and L&D should be offered so that they can use the available digital technology to its full potential and support their colleagues. Skills also need to be developed within the ASC sector in capturing, analysing, applying and interpreting data, to support the review of current provision and planning to help people stay independent for longer, delaying and then meeting future care needs. Participating managers in this research stated they would also like to see a repository of approved suppliers of digital skills training that would allow them to navigate by the setting and type of digital skills needed.

Talent management could also be used to identify those with particular strengths in digital skills, bridging between adult social care and digital technology, innovation and change management. These skills may be found in all levels in organisations, not just within the existing leadership.

Consistency in standards and terminology would also assist in the transferability of skills and in information sharing between organisations. This should also enable staff to evidence their learned skills and improve portability across the sector.

Recommendation 10: There is scope to improve consistency in the quality and availability of support for developing digital skills across the whole country and all workplaces, regardless of size of organisation or job role. This could focus on providing national guidance on what basic skills localities should focus on improving and how, to ensure that there is more uniformity in how investment in digital skills is being allocated and prioritised – for example, in the form of minimum expectations for digital skills training. Alongside this consistency there is also a need for skills to reflect the requirements of the roles, for example digital skills priorities among care home staff may be different from those among homecare staff. Nonetheless, initiatives to develop digital skills should be designed to avoid increasing disparities in digital skills between staff in different job roles and should ensure skills and capabilities are enhanced across the workforce. CQC inspections consider whether staff, including leaders and registered managers are 'safe and competent' to manage the service and deliver high

²⁴ The case study about upskilling contact centre staff illustrates this well.

²⁵ An example of a course focused on developing basic skills is: <https://www.learningcurvegroup.co.uk/courses/learners/level-2-course-digital-skills-care>

quality care.²⁶ This assessment of competence could in the future include consideration of digital skills and capabilities.

²⁶ Safe staffing is about having safe staffing levels, recruiting people with the right values, skills and experience to deliver safe care and support, doing the right recruitment checks and ensuring staff are competent and safe to do their role (through appropriate support, induction, training, professional development, supervision and appraisal) <https://www.skillsforcare.org.uk/Documents/Standards-legislation/CQC/Safe-staffing/Guide-to-safe-staffing.pdf>

3 Technology summary

This summary provides an overview of the central themes from the technology review that explored issues around the adoption and scalability of digital technology in adult social care. The review was carried out by Ipsos MORI and the Institute of Public Care (IPC) on behalf of NHSX. The summary brings together the overarching themes from the research conducted with all the audiences that took part in the technology review, namely: care providers, the adult social care workforce, local authorities, digital technology suppliers and digital technology service providers, people with care and support needs, and unpaid carers.

Rapid evidence reviews were conducted at the start of the technology and skills reviews and key points from these have also been brought in. These reports are also available online.²⁷

The summary for the related digital skills review in ASC is provided in [Chapter 2](#).

3.1 Scope of the research

The technology review aimed to explore the current use and effectiveness of digital technology in ASC; the barriers and enablers to accessing digital technology among care providers and those who use care and support services; the barriers and enablers to supplying digital technology; and the potential use for digital technology in the future.

It also aimed to explore the role digital technology is playing in the delivery of adult social care and what this may look like in the future. This included understanding how digital technology may help unpaid carers, improve the quality and efficiency of care, and support and promote independent living and improved outcomes.

The technology review considered all types of digital technology used in managing, delivering and receiving care. It covered digital technology hardware, software, and apps as well as services supported by digital technology. For the purpose of the review, digital technology was classified as follows:

- 1. Consumer digital technology or apps:** smartwatches, audio assistants, video calling software, health and wellbeing apps.
- 2. Business support or care management systems (BSCMS):** financial accounting software, HR management software, digital care rostering software, digital social care records or planning systems, electronic medication administration records (eMAR).
- 3. Support and monitoring digital technology:** personal alarms, monitoring equipment with sensors, voice operated or remote-controlled digital technology (e.g. voice operated curtains), customer facing apps or platforms to help users keep updated with care.²⁸
- 4. Advanced digital technology:** robotic digital technology (e.g. robotic walkers), virtual reality applications, sensory digital technology which recreates physical feelings using haptic digital technology

²⁷ <https://ipc.brookes.ac.uk/publications/building-the-evidence-base-for-tech-innovation-in-adult-social-care>
<https://www.skillsforcare.org.uk/Documents/Misc/Digital-Skills-in-Adult-Social-Care-Rapid-Evidence-Review-Mar21.pdf>

²⁸ Support and monitoring digital technology and advanced digital technology would come under the umbrella of Digital Technology Enabled Care (TEC). The different types of TEC are outlined in the rapid evidence review carried out at the start of this project. [Rapid Evidence Review for the Technology Review](#) (p2)

The audiences involved in the technology review were:

- regulated care providers (nursing homes, residential homes, homecare, supported living, extra care housing, Shared Lives)
- digital technology suppliers and digital technology service providers working in ASC
- local authorities with ASC responsibilities
- people with care and support needs (local authority funded, self-funded, or not in receipt of paid care) aged 18 and over, unpaid carers supporting people with care and support needs aged 18 and over (co-resident or not).

More detail about the audiences involved in both reviews is provided in the appendices. The skills review included research with the ASC workforce²⁹ and, where relevant, the findings related to the workforce's use of digital technology are included in this summary.

3.2 Central themes from the research

3.2.1 Use of digital technology for care and support

The use of digital technology for care and support was widespread but mixed, suggesting its full potential is not being realised.

Digital communication was common among all audiences. Most ASC staff reported that they had the digital technology they needed to communicate digitally with colleagues ([85% of ASC staff surveyed agreed that they do](#)). Ownership and usage of smartphones, laptops and tablets was common among people with care and support needs and unpaid carers aged under 80, usually to keep in touch with friends and family or use as social media, but many reported that they needed help setting things up or communicating digitally.

Consumer digital technology (CTA) was also increasingly being used to deliver care and support or help those receiving care and support, particularly smartphones, tablets, video calling platforms, and audio assistants (see [section 7.4.1](#)). Younger people were more likely to report using these technologies, and this age difference could be observed both among front line staff and among people with care needs and unpaid carers. Examples of how consumer digital technology is used mentioned by people with care and support needs and unpaid carers included taking part in video consultations, assessments or reviews, booking health related appointments online, renewing prescriptions, setting reminders for medications, and using various apps to help with day-to-day life and independence, or to monitor a condition.

A range of digital technology was used to deliver care, but awareness and knowledge of care digital technology were variable among the workforce, and were low among people with care and support needs and unpaid carers (see [section 5.6.2](#), [section 7.4.4](#), and [section 8.4.1](#)). Personal alarms and monitoring equipment with sensors (SMS), were the most commonly used types of care technology (shown by our research and in our review of previous evidence). Advanced digital technology (AT) such as robotics was much less common. Care homes were more likely to use support and monitoring digital technology to support the delivery of care than homecare providers. Younger frontline staff were more likely than older frontline staff to be using care digital technology. Over half of staff with a

²⁹ Including registered managers, social workers and principal social workers, OTs and principal OTs, registered nurses and care workers.

direct care-giving role agreed that they regularly thought about how digital technology can support the people they care for (57%). However, nearly half of staff in managerial roles or with responsibility for digital development felt their lack of knowledge inhibited their ability to use new digital technology to improve care (47%) and this view was shared by over half of care coordinators and brokers (53%). With the exception of personal alarms, awareness and knowledge of care digital technology was also low among participants with care and support needs and unpaid carers.

The review found that there was greater potential for digital technology to support independence and care delivery. Local authorities and digital technology suppliers considered that wider adoption of support and monitoring technology, combined with better data sharing between organisations, could enable more prevention (e.g. predicting likelihood of falls) and better monitoring of certain health conditions, in line with the views of organisations such as the Department of Health and Social Care and Audit Commission, as outlined in the rapid evidence review.³⁰ However, use of consumer digital technology by people with care and support needs and unpaid carers was limited by a range of factors including digital skills and confidence.

A variety of digital systems were used for the business and day-to-day management of care organisations (BSCMS) – most commonly for accessing payslips, staff rostering, care planning, and recording and monitoring care delivery. People receiving care and support and unpaid carers had limited awareness of its use in their care. The types of BSCMS digital technology used and the way they were used varied by type of provider, with homecare providers being more likely to use business and management digital technology such as care rostering, care planning, and electronic medicine records than care homes. This reflected partly the nature and setting of the care they provide.

3.2.2 Perceived benefits of digital technology in ASC

The review identified many benefits of using digital technology in ASC (see [section 11.4](#)). There was a broad consensus among the audiences included in the review (including in the rapid evidence review³¹) that digital technology brought benefits to both the organisation and staff member using the digital technology and, importantly, to the people with care and support needs and unpaid carers, as well as to the wider health and social care sector, including the NHS. [Views on benefits varied slightly depending on the participant's role within the ASC sector](#). The perceived benefits of digital technology reported by care providers, the ASC workforce and digital technology suppliers included: improved health outcomes or wellbeing for people with care and support needs and unpaid carers; improved communication between staff and accuracy of information; improved quality of care; and improved staff productivity. It also enabled health and care providers to continue services during the COVID-19 pandemic through online consultations and assessments. Digital technology could also assist in the use of joined up systems, increasing efficiency. In light of these benefits, some [digitally mature providers were using digital technology as a selling point, in particular to attract people who pay for their own care](#). People with care and support needs and unpaid carers focused more on the personal benefits of digital technology. They felt it provided reassurance in terms of safety and security, and it enabled independent living. Unpaid carers also felt that digital technology saved them time which could be used to have a break or to provide better care.

However, the main area where views differed was around the financial benefits of digital technology. For example, in the depth interviews all participating digital technology suppliers said [their products or services aimed to offer cost savings to care providers and/or local authorities](#), in line with the

³⁰ [Rapid Evidence Review for the Technology Review](#) (p5)

³¹ [Rapid Evidence Review for the Technology Review](#) (p7)

view the Audit Commission outlined in the rapid evidence review³². However, in the telephone survey with care providers there were mixed views about the financial benefits. Two in five (37%) said that [digital technology costs were greater than savings in the short-term, but that in the medium to long-term the costs would be recouped through productivity savings](#), while a slightly smaller proportion (32%) said that costs would not be recouped but that it helped to provide other benefits. Local authority staff interviewed also commented on the difficulty of determining the financial benefits of digital technology and suggested the case for non-financial benefits was clearer. The rapid evidence review also found mixed and limited existing evidence on the financial benefits of digital technology in ASC, with differing methods used for capturing financial benefits, leading to challenges comparing and contrasting products and their cost effectiveness.³³

3.2.3 Barriers to the adoption and scalability of digital technology

The review identified a number of barriers to the adoption and scalability of digital technology in ASC. These were identified in the rapid evidence reviews³⁴ and our primary research.

Awareness and knowledge about the range of digital technology available, and what benefits digital technology might bring was inconsistent across the sector and limited in some places.

This affected many groups across the sector. For care providers, the vast array of options and technological solutions on offer was considered overwhelming. Among frontline ASC staff, understanding of the range of technologies available to meet the needs of the people cared for varied significantly by job role, with care workers and social workers less likely than registered nurses to agree they have such understanding, which makes it challenging for them to suggest appropriate solutions. Digital technology suppliers considered the mixed awareness among care providers and local authorities particularly problematic for the scaling up and adoption of digital technology, as they were their target clients.

Some local authority staff also reported that digital technology was not always seen as a potential core element of a care package due to front line staff having limited awareness of the potential of digital technology (including consumer technology) to contribute to improved health and wellbeing outcomes. This was despite positive attitudes about digital technology among the majority of the workforce: in the workforce survey over eight in ten participants agreed that [digital technologies were important in adult social care \(82%\)](#), and [80% agreed that digital technologies could help them do their job better or more efficiently](#)

There was a perceived lack of need for digital technology, related to low awareness among some unpaid carers and people with care needs who participated in the research, who thought their care needs were not high enough to justify new digital technology, or who were not sure at what point they should consider adopting digital technology. Adopting digital care technology was often reactive rather than proactive and there were several instances of [waiting for a person's condition to deteriorate before using digital technology](#). Many participants did not know how they could benefit from digital technology, where to find out about existing digital solutions that would meet their needs, and where to buy them. Indeed, many local authority staff interviewed acknowledged that the provision of information, advice and guidance regarding digital technology was often complex to navigate.

There were financial and cost barriers. It was unclear to many participating care providers what the overall costs and financial benefits of digital technology would be. In the qualitative interviews, care

³² [Rapid Evidence Review for the Technology Review](#) (p5)

³³ [Rapid Evidence Review for the Technology Review](#) (p6)

³⁴ [Rapid Evidence Review for the Technology Review](#) (p10-14)

providers explained that this made it difficult to justify investment in digital technology where there were other competing priorities. [Current budget pressures in the organisation was the most frequently cited barrier to the adoption of digital technology over the next five years](#), with over half of care providers citing it (56%). In line with this, local authority staff described the care provider market as fragile with a risk that [any mandatory requirement to use digital technology could have unintended consequences](#). This barrier was also reported by digital technology suppliers, who found that [the fragile finances of the sector limited the ability to invest in existing technologies](#), combined with financial benefits sometimes not being realised by the purchaser of the digital technology but elsewhere (e.g. by the NHS). The need to factor in operational costs, and sometimes also ongoing digital technology service costs, added to the complexity of the financial decisions involved in adopting digital technology. Participants with care and support needs and unpaid carers also raised issues about costs: they wanted to know about the potential costs of digital technology, and whether financial support, e.g. from their local authority or the NHS, was available.

The review also found a need for stronger digital leadership in parts of the ASC market and for sufficient capacity and capability to introduce digital technologies into the sector and manage the related change – in line with recommendation 3 of skills review. Digital technology suppliers saw the ASC sector as diverse in terms of digital readiness, [requiring a high degree of scaling and levelling up to realise the potential of existing technologies](#). This was in line with care providers' views: [67% described the digital maturity of their organisation as developing, and only one in eight as expert](#) (12%). In contrast, in the survey, most local authorities (15 out of 23) [agreed that there was strong leadership in digital technology and planning in their organisation](#). However, in the depth interviews, some local authority staff explained that [their organisations lacked the means, capacity and capability to scale up and adopt digital technology](#) – especially small local authorities. These barriers to implementing digital technology within their organisation over the next five years were also highlighted by care providers: for example, in the telephone survey, [lack of skills and knowledge to implement digital technology were reported by one in three care providers \(31%\), and two in ten reported lack of knowledge around change management \(21%\)](#).

The review found that the nature of the demand for digital care technology hindered the scaling and adoption of digital technologies and limited purchasing confidence. The care provider sector is predominantly made up of small and medium-sized care providers, and there are over 150 separate local authorities with ASC responsibilities in England, as well as individual adults with care and support needs purchasing social care services, including digital technology. For digital technology suppliers and service providers, this poses challenges associated with [low levels of in-house knowledge about technology, low average customer size, and relatively low value order per customer](#). To address this issue, the review heard that some integrated care systems (ICs) were looking to facilitate several local authorities commissioning and purchasing digital technology together to reduce market fragmentation. The Social Care Digital Innovation Accelerator Programme (SCDIA), which was funded by NHS Digital and managed by the LGA was also designed to address these issues.³⁵ Digital technology suppliers also saw people with care and support needs and unpaid carers as an important part of the market for digital technology, as those who pay for their own care could directly buy digital technology solutions, or act as the driver for the adoption of digital technology by care providers aiming to distinguish themselves within the care market. Increasing purchasing of digital technology by the end user will make the customer base even more diverse.

³⁵ [Rapid Evidence Review for the Technology Review](#) (p15)

Inconsistency of views and expectations between different commissioning and/or regulatory organisations was perceived to be a barrier (see [section 9.5](#) and [section 11.5.2](#)). These were reported both by digital technology suppliers and care providers. The requirements of regulatory body local representatives and local authorities could sometimes appear inconsistent across regions, which resulted in care providers making varying demands of the digital technology supplier, depending on what their local authority or CQC inspectors had requested during quality assurance visits and audits. This created challenges for the design of solutions and required digital technology suppliers to provide differing local configurations. Some participants also thought there was a lack of clarity and consistency regarding CQC's expectations of digital maturity and the desirability of a move to a paperless environment.

There was a reported lack vision for a digital eco-system or 'digital backbone' for the sector to effectively build upon, with inconsistency in systems and a lack of interoperability. Limitations around interoperability and inconsistent standards (including on data sharing) were a barrier to care providers and local authorities in purchasing digital technology, and to digital technology suppliers operating in the market. This was reported to present challenges in choosing digital technology, led to inconsistency in customer requirements (and requests for more expensive bespoke systems), increased the chance of digital technology becoming obsolete, and hindered the sector in maximising the full potential of digital technology and integrating information between systems. Some of these issues may reflect the relative immaturity of the technology supplier market. Work is already underway to respond to these challenges.³⁶

Digital technology that was not user friendly or fit for purpose presented barriers to adoption. This could be current digital technology, but was also related to legacy systems or poor past experience, making people perceive digital technology not to be user friendly and be reluctant to adopt digital technology even if such issues were historic. In local authorities, the quality of adult social care management systems, often described in the depth interviews as unwieldy and complex, was felt to be an impediment to digital working. Personal alarms were described as having a number of limitations, such as the pendant version labelling the wearer as vulnerable, people forgetting to wear it, or taking it off at night or while showering and then having a fall.

Procurement policies among some local authorities and care providers made it challenging to adopt new digital technology for the first time, when not purchased from an established supplier. Care provider organisations and local authorities can have an established list of approved suppliers from which commissioned services must be sourced. The process for putting in place a new supplier can inhibit the adoption of digital technology in a timely manner and the inclusion of digital technology in care plans. Even where care is funded via direct payments, restrictions over what direct payments can be spent on can inhibit innovation.

Limited and unreliable access to the internet was a barrier. Few care providers and frontline staff lacked internet access completely, but it could be unstable or not available everywhere (e.g. [for care staff providing care in people's homes, or where the building type or size make consistent internet across the premises difficult to achieve](#)). Problems with internet access led to some practical limitations in adopting digital care systems and the retention of paper as a back-up, though some systems allowed information to be recorded off-line. Staff were sometimes reliant on their own broadband or mobile

³⁶ See for example <https://www.nhsx.nhs.uk/key-tools-and-info/digital-technology-assessment-criteria-dtac/>

connection for internet access, even for work purposes, and working from home or carrying out online training at home was common.

There were some concerns that digital care could replace face-to-face care or affect the quality of face-to-face care – a view shared by some unpaid carers, care providers and members of the workforce. This led some care providers to limit their adoption of digital technology, either because they had concerns care would become less personal or thought that digital technology would not appeal to the people they cared for.

3.2.4 Varying digital confidence

Digital confidence among the ASC workforce, unpaid carers and people with care needs varied but a gap in basic digital skills was not the primary barrier.

Among unpaid carers and people with care and support needs involved in this research, digital confidence was limited: most were comfortable doing some (limited) tasks but needed help to set up new digital technology and troubleshoot, which they usually got from family and friends, and occasionally from a personal assistant. Few participants were embracing new digital technology, and those who did so were usually people who were using or had used digital technology at work. A handful of participants with care and support needs or unpaid carers did not use any digital technology at all and did not feel the need to develop their digital skills – they were all aged 85 or over. Age was closely related to digital confidence: all participants with care and support needs who reported feeling not very or not at all confident using digital technology were aged 65 and over.

In the depth interviews some care providers thought that parts of their workforce were resistant to changes in working practices or had low digital confidence – a perception shared by many local authority staff interviewed. In the survey, a fifth of care providers (22%) who were not using business support and management systems mentioned [a lack of skills to use this type of digital technology among their staff as a reason](#). Compared with other job roles in ASC, care workers consistently reported using digital technology less in their day-to-day roles, feeling less confident using it, and also were less positive about its wider rollout in the sector. However, interviews with the workforce showed that confidence was associated with the opportunities to use digital technology and the extent to which digital technology was used in their organisation. There was evidence (discussed in more detail in [Chapter 2](#)), that limitations in digital skills among the frontline workforce were not the main barrier, rather [the lack of opportunities to use technologies](#) was a barrier to digital skills.

The majority of local authority staff interviewed also reported the need to further develop and strengthen the digital skills and confidence of their frontline workforce. They commented that some frontline staff, particularly older staff, preferred face-to-face contacts to digital interactions when working with people with care and support needs and unpaid carers. A lack of staff confidence around data security was also mentioned as holding back progress towards wider use of digital technology. Around a quarter (24%) of care providers taking part in the survey also mentioned [concerns about data security as being a barrier to implementing technology](#), suggesting more needs to be done to reassure and raise awareness of existing support³⁷. Skills and capabilities around project and change management in implementation were seen as just as important as the digital skills of the frontline workforce, as these were the barriers to the adoption and scaling of digital technology in ASC.

³⁷ See NHSX IG Portal, Digital Social Care: [Better Security, Better Care](#)

Issues around digital skills and confidence are explained in more detail in the [digital skills review's thematic summary](#).

3.2.5 The impact of COVID-19 on the ASC sector

The difficulties and pressures the ASC sector has experienced during the COVID-19 pandemic have been well documented. In both reviews we explored how the COVID-19 pandemic has changed the use of digital technology in the sector.

The pandemic has led to an increase in the use of digital technology. Four in five (80%) care providers and two thirds (68%) of the workforce reported an increase in the use of digital technology.³⁸ (see [section 9.6](#) and [section 5.7.1](#)). Local authority staff interviewed also reported a greater use of digital technology, mainly to facilitate remote working. Most unpaid carers had also made greater use of digital technology. People with care and support needs reported a mixed impact, with those who did not use digital technology before the pandemic using very little digital technology during and since the pandemic.

Participants mainly reported greater use of consumer digital technology such as smartphones, mobile tablets and video calling software. This digital technology helped people to keep in touch with family and friends, access or provide health and care services, and facilitated remote working throughout the COVID-19 pandemic. This means the increase has been greater among those whose role involved more communication, such as managers, social workers and care providers. Overall, this greater uptake in communication digital technology meant there was more awareness of the benefits of digital technology in terms of outcomes, productivity and some cost savings. It was also leading to greater adoption of business support and care management systems, and monitoring and support digital technology. An example of cost savings from greater use of communication digital technology included local authorities planning to release some of their estate as a result of more staff working remotely. In line with this greater use of digital technology, most digital technology suppliers (68%) said their customer base had increased. [Around half of digital technology suppliers \(53%\) also reported an increase in turnover.](#)

The impact of the COVID-19 pandemic on the use of digital technology in the sector is likely to be long lasting. The majority of care providers (90%) said they would [continue to use digital technology in the same way as during the pandemic](#). Local authorities also had plans to increase the use of digital working in the future, and participants in the ASC workforce survey agreed that the need for digital skills had increased since the pandemic. Unpaid carers and those with care needs who could see the potential benefits of care technology also suggested they would be more open to using digital technology to support care needs.

3.2.6 Enablers

A range of enablers were identified to help overcome the barriers to the adoption and scalability of digital technology in ASC.

- For **people with care and support needs and unpaid carers**, these were about better signposting, information and advice about digital technology solutions available; and hands-on support to adopt digital technology, learn new skills and troubleshoot. More generally, local authority staff interviewed commented that [reducing digital exclusion was key to the adoption of digital technology by people with care and support needs and unpaid carers](#). The work of

³⁸ These findings are in line with other recent research outlined in [Rapid Evidence Review for the Technology Review](#) (p7)

technology companies in developing care technology should involve these groups so that solutions are co-produced.

- For **digital technology suppliers** these were about having a clear vision for digital technology in ASC, with government policies, data industry standards and enhanced interoperability as well as financial support for the ASC sector and capacity building among smaller care providers. Opportunities to learn about the needs of the ASC sector and bridge the divide between the technology and ASC sectors were also important to this group.
- For **care providers**, enablers centred around greater availability of funding for investment in digital technology, upskilling of the workforce, help to understand the different technologies available, support to review different digital technologies and develop a business case, advisory or consultancy services to decide what should be implemented, improved infrastructure, and support to improve project and change management processes.
- For the **workforce**, enablers centred around improving knowledge and understanding of how care technology can improve outcomes for people with care and support needs and unpaid carers, and supporting staff to further improve their digital skills and confidence.
- For **local authorities**, enablers included '[Change Partnerships](#)', which encompassed a whole system approach to digital technology (i.e. supporting an organisational and cultural shift in the use and promotion of digital technology). Other enablers included reducing digital exclusion locally, improving their case management system and their digital infrastructure, and making sure digital technology is discussed with people with care and support needs and unpaid carers when conducting assessments or planning support.

3.2.7 Future design and development of digital technology

All audiences felt that digital technology would be part of their future way of working. Local authorities and care providers were planning to use (more) digital technology in the future to support back-office functions and the delivery of front-line care and support. Those working in ASC were also open to using digital technology to deliver care and support, however, there were mixed attitudes among people with care and support needs. Attitudes tended to vary by age cohort, with the oldest participants explaining that although they could see the benefits of digital technology, they did not want any more digital technology for themselves now or in the future. This was because they had not yet started to use digital technology, or were using it very little, and thought it would be too disruptive to adopt it at their age or were satisfied with the current support arrangements. Participants of working age or aged under 75 were usually more open to using further digital technology in the future if they needed it, assuming that it would enable them to retain independence, keep them safe, or allow them to continue living in their home. These participants were already using consumer technology or some digital care technology in their day-to-day life and were more likely to see the benefits.

Data analytics and artificial intelligence were reported as key areas for development for digital technology suppliers. Over the next five years, digital technology suppliers said that they planned to focus on the development of digital solutions that enable predictive and preventative care. These solutions would capture data and apply data analytics, artificial intelligence or behavioural insights to inform decision making. These developments were seen as critical by technology companies for supporting independent living for longer and supporting safe hospital discharges and reablement.

However, there was a mismatch between the types of solutions digital technology suppliers planned to develop in the future, and the future technology needs reported by other organisations, particularly care providers. Local authority staff also viewed data analytics and the potential of ‘big data’ as an opportunity, but were more sceptical about how this would work in practice given issues with interoperability and current barriers to data sharing between organisations. Care providers did not see data analytics as being a priority area for development. Instead, they were more focused on using consumer digital technology, followed by business support and care management systems and support and monitoring technologies. Given that around one in twenty (5%) care providers reported using mainly paper-based systems and most (70%) used a mix of paper and digital to manage information, there may be a need to [realign digital technology supplier plans with the current needs of care providers](#). First generation TEC³⁹ (e.g. analogue personal alarms) were still widely used in the sector when the research took place. The switching off of the analogue telephone network in 2025 may result in the need to adopt more proactive third generation TEC. It may also require care providers and local authorities to align with technological developments, which would enable greater use of data analytics and preventive use of digital technology.

3.3 Implications and recommendations

With these overarching themes in mind, the research points to a number of implications and recommendations for the adoption and scalability of digital technology in ASC. These were suggested by the research team from Ipsos MORI and IPC, based on the research findings, and discussed with the expert reference group before being finalised. The recommendations are intended to provide a starting point for discussion, reflection and planning and to be of interest to a wide range of stakeholders in the ASC sector. They are relevant not only to NHSX, but also to other organisations within adult social care and to those developing or supplying digital technology to the sector.

Recommendation 1: Building a national vision for a digital eco-system or ‘backbone’ for digital technology in ASC would assist digitisation of the sector. This could involve consideration of the following at a national level:

- A vision and strategy for what is needed now and looking ahead to where the ASC sector needs to be by 2025 and beyond, taking into account changes to services (such as the switching off of the analogue telephone network⁴⁰) and digital technology development.
- Implementation of interoperability and best practice standards, to enable consistent development of systems that are fully interoperable (e.g. between care planning and rostering software), allow extraction and use of data for prediction and earlier intervention, and mean that fundamental operations are consistent whichever supplier is chosen. The TSA, ADASS and others in the sector have been calling for standards and support in this area.^{41 42} In developing ASC standards, consideration should be given to existing NHS systems and standards and the sharing of data between the NHS and ASC (e.g. development of Shared Care Records).

³⁹ Digital technology enabled care

⁴⁰ <https://business.bt.com/insights/digital-transformation/uk-pstn-switch-off/>

⁴¹ [Rapid Evidence Review for the Technology Review](#) (p15)

⁴² How can technology be truly integrated into adult social care? March 2021 report of the TSA and ADASS commission <https://www.tsa-voice.org.uk/adass-tsa-comm/>

- Clarification on digital best practice for care providers, and how they will be assessed by the CQC, together with clear guidance from local authorities on reasonable expectations and commissioning requirements (for different types of providers).⁴³
- Development of associated infrastructure e.g. broadband, 4G/5G and other local connectivity.
- Support structures for organisations in implementing change management associated with the introduction of digital technology. This should include support for local authorities for major digital projects, as well as for care providers in adopting digital business systems and moving away from paper records. Support is needed not just for moving to digital systems but also for considering the implications of digital technology for how information and services are managed. New ways of working may be needed, not just the conversion of information from paper to digital formats.
- Adopting a multi-disciplinary partnership approach, involving a range of organisations across the sector and beyond. This should include strengthening connections between care providers and digital technology developers, housing providers and health services. Social care professionals need to be given the opportunities to contribute to these partnerships and develop their skills by working alongside those with technical specialisms (e.g. informaticians).
- Clearer guidance and support on data protection and information governance and good practice on use of personal devices for work purposes (robust 'bring your own device' policies) and sharing of data and information across organisations and professions. The Data Security and Protection Toolkit, Digital Social Care⁴⁴, and the Better Security, Better Care programme are already providing valuable resources in this area and awareness of them could be improved. The NHSX Information Governance hub also provides a useful step in this direction.

Recommendation 2: More support is needed to mitigate the impacts of a fragmented customer base for care technology (as most care providers are SMEs and people with care and support needs may also purchase technology). Strengthening of the care provider and local authority purchasing market would also be beneficial as it would increase purchasing confidence and efficiency, and provide a clearer customer base to suppliers (without making supply to the care market unaffordable for digital technology suppliers). This could be done through existing structures such as ICSs and the newly emerging Placed-based Partnerships⁴⁵, which bring together separate organisations for specific functions. Sustainable models of supply for different parts of the market could be devised, including for people who fund their own care or purchase their care through personal budgets, and unpaid carers.

Recommendation 3: Raising awareness and understanding of digital technology in ASC is crucial to increase take up and buy in. People in all parts of the ASC sector need access to information about digital technology in ASC:

- **Social workers and occupational therapists** on the potential of care digital technology to meet people's needs (including those of unpaid carers) and how to choose it, how digital technology can support a strengths-based approach which enables and empowers people with care and support needs and the role of data in prevention.

⁴³ Work is already taking place on this, such as the NHSX '[What Good Looks Like](#)' (WGLL) framework.

⁴⁴ <https://www.digitalsocialcare.co.uk/>

⁴⁵ Place-based Partnerships are collaborations of providers and organisations in a local area to address issues such as improving the health and wellbeing of the local population.

- **People with care and support needs** and unpaid carers on the range of care and consumer digital technology available, how they can be used for current and developing needs, to maintain independence or improve quality of care received, and to support unpaid carers in their role. There also needs to be advice and guidance on how to use the consumer digital technology they already have, where to buy digital technology and which type or supplier to choose.
- **Leaders and managers** on how to introduce digital transformation, where to begin and what digital technology can offer. This is primarily needed in care provider organisations, and to a lesser extent in local authorities (and in smaller ones in particular).
- **Procurement teams and commissioners** on how to facilitate the introduction of innovative solutions to meet care needs, within existing procurement frameworks so that those making care plans have the backing needed to recommend or provide care digital technology.
- **Care workers** on how digital technology complements and supports rather than replaces face-to-face care, so that they feel confident in adopting digital technology and in helping adults with care and support needs and unpaid carers use digital technology to meet their needs.
- **Digital technology suppliers** on the needs within the sector in terms of care needs and intended outcomes of support, attitudes and constraints within care providers and local authorities, and the nature of digital skills support needed for effective implementation. Technology suppliers also need an understanding of the importance of continuity and ongoing support for digital systems which providers and local authorities have invested in.

Recommendation 4: The development of sector wide standards and systems should involve end users of digital technology. These should be co-produced with people with care and support needs, unpaid carers and the workforce so that standards reflect how these groups currently use digital technology and could do in the future. There is also a need to consider the outcomes from the use of digital technology in ASC, which could include aligning outcomes to the Think Local Act Personal Making it Real 'I statements'⁴⁶ as a building block to digital adoption and innovation. Any standards developed would benefit from building on currently available consumer digital technology and ensuring effort is made to make systems equally intuitive and accessible for end users, while also building on existing work seeking to improve interoperability and best practice standards⁴⁷. Finally, people with care and support needs and unpaid carers would benefit from additional support to develop their current digital skills further.

Recommendation 5: Investment in digital technology should be encouraged in view of both financial and non-financial benefits. Investment should be system-wide, including where benefits are felt outside the immediate ASC sector. Care providers and local authorities need to be supported in making a business case for digital technology. Greater capital funding could be made available to help care providers and local authorities purchase digital care technology since the organisations or individuals who need to purchase the technology may not have sufficient funding to build it into their budgets, or the benefits may be experienced elsewhere. Systems and support are needed to enable the cost benefits of digital technology outside the immediate ASC system to be recognised, measured and if possible recouped from those who benefit most. Care providers and local authorities need to be supported in making a business case to buy and adopt digital technology, which

⁴⁶ <https://www.thinklocalactpersonal.org.uk/makingitreal/about/six-themes-of-making-it-real/>

⁴⁷ <https://www.nhsx.nhs.uk/key-tools-and-info/standards-and-interoperability/>

includes understanding of ongoing service and support costs, and the costs and savings in staff time associated with the adoption of different types of digital technology.

Recommendation 6: Further research needs to be conducted in view of the constantly changing technology landscape and to cover areas out of scope of these reviews. In particular, more work is needed to explore the economic costs and benefits of digital technology in ASC, and how digital confidence, digital skills and use of technology across end users may be impacted by broader demographic factors, including ethnicity or socio-economic status. In light of the competing budget priorities that care providers and local authorities experience, more research is needed to collect robust evidence on the cost and benefits of care technology for all those involved, including end users and the health sector. This would help make the case for investment in digital technology across the ASC sector, discussed above. More work is needed to explore the impact of broader socio-economic and demographic factors, including ethnicity and how digital confidence, digital skills, adoption and use of technology may or may not vary between ethnic groups. Other areas or audiences for further research are listed in chapter 12 and primarily include further engagement with local authorities and technology suppliers, engagement with specific audiences such as care providers not registered with CQC, social prescribers and VCOSs, activity coordinators, CCGs and ICSs, informaticians and data analysts in ASC. Finally, as technology is constantly developing, the approach used to facilitate the adoption and scalability of technology (including training and support for staff) needs to evolve to keep up with new developments.

4 Methodology

4.1 Scoping the reviews

Both reviews started with a joint scoping phase to explore the views of key organisations and stakeholders in the adult social care sector. The scoping phase aimed to:

- confirm the objectives of the reviews and how they could be most useful to NHSX and the wider ASC sector
- define the scope of the reviews including the type of technology, skills, and audiences to include
- refine the methodological approach and help determine the most appropriate methods to use
- inform sample design, and the design of questionnaires and discussion guides
- develop a framework for the selection of case studies and generate potential cases.

In order to achieve these aims, 35 depth interviews were conducted, each lasting between 45 minutes and one hour. They were undertaken with a wide range of stakeholders who could comment on both reviews or technology or digital skills only. Interviews took place between January and March 2021.

Two rapid evidence reviews were also conducted as part of the scoping phase, in order to synthesise existing published literature on both subject areas and identify evidence gaps. The published reports for each review can be accessed using these links:

- [Technology review](#)
- [Skills review](#)

The scoping phase helped to refine the content of the reviews, which is covered in further detail below.

4.2 Contents of the reviews

4.2.1 Content of the technology review

The review focuses on the following types of technology used in ASC:

- 1. Consumer digital technology or apps (CTA):** smartwatches (e.g. Garmin, FitBit, Apple Watch), audio assistants (e.g. Amazon Alexa or Google Home), video calling platforms (e.g. Zoom or MS Teams), health and wellbeing apps.
- 2. Business support or care management systems (BSCMS):** financial accounting software (e.g. QuickBooks, Sage), HR management software, digital care rostering software, digital social care records or planning systems, electronic medication administration records (eMAR).

3. Support and monitoring digital technology (SMDT): personal alarms, monitoring equipment with sensors, voice operated or remote-controlled digital technology (e.g. voice operated doors or curtains), customer facing apps or platforms to help users keep updated with care.⁴⁸

4. Advanced digital technology (ADT): robotic digital technology (e.g. robotic walkers), virtual reality applications, sensory digital technology which recreates physical feelings using haptic digital technology

The review primarily explores existing digital technologies and their use and roll out in the next 2-3 years, rather than future technology development and advanced technology like robotics and augmented reality platforms, however, they were within scope and are referenced where relevant.

A detailed evaluation of the costs and financial benefits of different technologies were not in scope for this review. However, participants were asked to comment on their views about the costs and benefits for their organisations.

4.2.2 Content of the digital skills review

The scoping phase found that there is no one definition of digital skills for ASC, and language is used in different ways when discussing digital skills.

For this review 'digital skills' was understood broadly in terms of tasks and activities where the workforce are required to use digital skills, as well as factors such as confidence, understanding, motivation and opportunities to use digital technology, rather than just ability levels. The review therefore aims to capture a 360-degree view of current digital capabilities including:

- levels of awareness of technology
- confidence in using technology and carrying out tasks using digital skills
- attitudes and understanding related to technology
- levels of motivation
- organisational and cultural factors influencing staff.

The review primarily focuses on measuring digital skills now (rather than future requirements). Digital exclusion is explored by understanding access to technology and perceptions across the workforce, including analysing results by subgroups. Perceptions of barriers are also explored, as well as incentives and enablers to taking up digital technology.

More detail on the topics explored with each audience is described below.

⁴⁸ Support and monitoring digital technology and advanced digital technology would come under the umbrella of Digital Technology Enabled Care (TEC). The different types of TEC are outlined in the rapid evidence review carried out at the start of this project.

<https://ipc.brookes.ac.uk/publications/building-the-evidence-base-for-tech-innovation-in-adult-social-care> (p2)

4.3 Research audiences for the reviews

Both reviews included research with several audiences in order to provide a full view of the ASC sector, with the reviews covering the same audiences at particular points. Audiences that were included as participants in both reviews were:

- care providers:
 - the technology review aimed to capture the views of senior decision makers within care providers including Chief Executives, Managing Directors and other senior leads.
 - the skills review explored the views of registered managers; the qualitative research included views of senior decision makers
- people with care and support needs
- unpaid carers
- local authorities (the technology review focused on those who commission ASC services and the skills review explored the views of those responsible for L&D⁴⁹).

The **technology review** also included research with technology suppliers.

The **digital skills review** explored the views of the ASC workforce.⁵⁰ In addition to registered managers (discussed above), this included:

- care workers (across different care settings including care homes, homecare, extra care housing, shared lives, day care services and supported living)
- social workers
- nurses working in ASC
- occupational therapists (OTs) working in ASC
- care coordinators and brokers
- administrative staff working in ASC.

The skills review also included research with L&D providers.

4.4 Research approach

A mixed methods approach was undertaken to ensure a comprehensive understanding of digital technology and skills in the ASC sector was captured. This included surveys, depth interviews and focus group discussions. Further detail about the methodologies with each research audience is provided below.

Throughout both reviews, depth interviews and group discussions were conducted online via MS Teams or Skype, or by telephone, to capture rich qualitative data about participants' views, attitudes, and

⁴⁹ As, only three L&D leads in local authorities took part in the survey, the findings for this group are based on the depth interviews

⁵⁰ This research also explored access to digital technology and use of digital devices

behaviours. Owing to the current COVID-19 pandemic, no interviews were conducted face-to-face. Researchers ensured that rapport was established in each interview and discussion group to create an environment in which participants felt they could freely voice their thoughts and engage clearly. For some audiences, participants were provided with an incentive as a 'thank you' for their time – more detail about the incentives is provided in the sub-sections for each audience.

The following section provides more detail about the methodology for each strand of the technology review and skills review.

4.4.1 ASC workforce (skills review)

A survey, depth interviews and discussion groups were carried out with the ASC workforce, exploring the following topics:

- confidence in undertaking a range of tasks using digital technologies
- use of digital devices and technologies in and outside of their role in ASC
- perceived gaps in digital skills
- views of leadership within their organisation regarding digital technology and skills
- current provision of training around digital skills.

Online and telephone survey

In total, 2,046 eligible members of the ASC workforce participated in the online/telephone survey, which took around 20 minutes to complete. 1,568 participants took part online and 478 participants took part by telephone. Fieldwork was conducted between 14th May and 13th June 2021. All these cases are included in the data for analysis.

As a comprehensive sample of staff in the ASC workforce was not available, an online open-link approach was used instead, whereby care staff were encouraged to participate in an online survey that was publicly accessible. This online version was aimed at care workers, social workers, OTs, registered nurses and administrative staff. Other groups including care brokers and coordinators and personal assistants were able to take part if they wished, though they were not specifically targeted in recruitment. Registered managers were also invited to participate primarily by telephone and using a different sampling method based on the CQC register (more detail on this is provided in the 'Care providers' section below). Most of the telephone interviews were with registered managers.

Participants taking part online were asked to complete a short registration survey before being sent a unique link to the main survey. They could also participate via telephone if preferred. The online registration link was promoted in the ASC sector via online publications and newsletters through Skills for Care's networks in the sector. Participants were offered a £10 shopping voucher (either online or by post) as a thank you for their participation.

As the link was open and involved an incentive, some people took part who did not appear to be genuine members of the adult social care workforce. Procedures were put in place to identify these cases and exclude them from the payment of incentives and inclusion in the analysis dataset.⁵¹

⁵¹ More information about these procedures is provided in the appendix.

The following quotas were set for the ASC workforce (other than registered managers) taking part in the survey:

- job role
- type of employer
- job setting.

Data were weighted by the same variables as a final adjustment to match the profile of the ASC workforce in England in the Skills for Care Adult Social Care workforce (ASC-WDS) estimates from March 2020.⁵² These data did not include the exact categories included in our research or for which we asked questions and so analysis was carried out to set the quotas and weighting scheme. As well as weighting the sample to the overall workforce characteristics (including registered managers), data which came from questions not asked to registered managers were weighted to the profile excluding registered managers.

See the Appendices for a detailed breakdown of the participants in the ASC workforce survey and more information about the sample, fieldwork and weighting.

Depth interviews and discussion groups with the workforce

In total, 18 discussion groups (with a total of 72 participants), and 45 depth interviews were conducted with nurses, OTs, principal OTs, social workers, principal social workers, and care workers (registered managers of care providers were also included in the qualitative research – more detail is provided in the next section). Please see the Appendices for participants' profiles.

Fieldwork took place from May to July 2021. Participants were recruited through a range of avenues including:

- Skills for Care: Information about the interviews and groups was disseminated by Skills for Care to contacts in the sector, from which people were able to opt-in to the research
- re-contacting people who had taken part in the survey and had expressed an interest in participating in a depth interview or discussion group
- snowballing (participants referring their colleagues and friends).

A specialist recruitment agency was appointed to liaise with participants and book in appointments.

Quotas were set on a number of characteristics, including employment status (permanent or non-permanent); responsibility for supervising staff; age; region in England; ethnicity; and digital confidence. To see a detailed breakdown of the participants who took part please see the Appendices.

Each interview lasted between 45 minutes and one hour, and each discussion group lasted 90 minutes. Interview participants received an incentive of £35, and those who took part in a discussion group received £45.

⁵² <https://www.skillsforcare.org.uk/adult-social-care-workforce-data/Workforce-intelligence/publications/Data-and-publications.aspx>

4.4.2 Care providers (skills review)

Registered managers within care settings were also invited to participate in the survey and depth interviews (exploring the same topics described above). Senior decision makers within care providers were also invited to take part in the depth interviews. For registered managers, same research tools as for the other workforce roles were used for both the survey and the depth interviews and discussion groups. However, for the survey, a different sampling method, a different emphasis on survey mode (with registered managers primarily being invited to participate by telephone rather than online), different quotas and a different weighting scheme (for the survey) were applied, which is described below.

Online and telephone survey

The sample of registered managers was developed based on the publicly available list of registered care providers on the CQC website (available in March 2021). The sample frame of providers was split in two and half was used for the survey of registered managers for the skills review and half was used for a survey of care providers for the technology review (described in the next section). For the survey with registered managers conducted as part of the skills review, the sample was at location or care setting level, with multiple registered managers within a provider being eligible for the survey. This sample was used to call registered managers and invite them to participate in the survey via telephone. Registered managers could also request to be sent an online link to the survey instead of taking part by telephone. If they took part in the survey, registered managers were eligible for a £10 incentive to thank them for their participation.

Different quotas were set for registered managers compared with the quotas for the ASC workforce more widely, as more information was available for registered managers from the CQC's list of registered care providers. Quotas set for registered managers are provided in the Appendices.

Data from questions asked only to registered managers were weighted to reflect the same profile of settings with registered managers in the CQC sample by:

- number of locations in the provider (one or two or more)
- setting type
- region
- rurality
- number of beds if a care home.

For questions in the survey which were asked to registered managers and other groups in the workforce, weights were created to reflect the overall profile of the social care workforce including registered managers. This was based on the Skills for Care (ASC-WDS) estimates from March 2020 and is described in the workforce survey section.

Depth Interviews

The sample for this strand of the research was developed using the list of registered care providers available from the CQC website. Care providers were selected to cover different types and sizes of providers in the sector.

In total, 23 participants took part in this strand of the research. Each interview lasted between 45 minutes and one hour. Participants for the depth interviews were recruited through a specialist recruitment

agency. All fieldwork was conducted from May to July 2021. Please see the Appendices for a quota breakdown for the achieved sample.

4.4.3 Care providers (technology review)

Telephone survey

The telephone survey was developed with the research aims in mind, and included the following topic areas:

- technology used to support business activities and support the delivery of care
- the impact of technology on staff, service users, and family and unpaid carers
- barriers to accessing and using technology
- impact of the COVID-19 pandemic on the use of digital technology
- future use of digital technology.

In total, 608 care providers were interviewed via telephone between 26th April and 6th June 2021. The interview lasted approximately 30 minutes. The sample for the survey was developed using the publicly available list of registered care providers on the CQC website. Only providers working in ASC were included in the sample as eligible this included care home providers, homecare providers, extra care housing, supported living services and other types of providers. The population of eligible care providers was split to provide a sample for this survey and another one for the survey with care registered managers conducted on [skills](#). For the care provider survey as part of the technology review, the sample was at provider level, with one representative in a provider asked to take part. This could be a registered manager, the owner or other senior manager in the provider organisation.

Quotas were set by number of settings (one, two or more), regions within England, and types of service provided. These were based on the profile of CQC registered providers. Data were weighted by the same variables as a final adjustment to match the profiles developed of registered care providers in England. The survey is representative of registered care providers in England. See the Appendices for details about the sampling approach for the care provider survey, and the achieved profile.

Depth interviews

Overall, 23 interviews were conducted with care providers with each interview lasting between 45 minutes to one hour. Care providers were incentivised with a £50 bank transfer or a donation to a charity depending on their preference.

Similar to the online survey, the sample for this strand of the research was developed using the list of registered care providers available from the CQC website. Care providers were recruited from this list, with the aim of covering different types and sizes of providers in the sector. A subset of CQC sample allocated to the technology review was allocated for qualitative interviews, but people who had taken part in the survey and were willing to take part in a further interview were also invited for the qualitative research. See the Appendices for a detailed breakdown of participants.

Fieldwork for the depth interviews was conducted from April to June 2021.

4.4.4 Local authorities (both reviews)

Online survey

Local authority employees, including commissioners and L&D leads, were asked to complete an online survey about the use of digital technology within the social care services they commission and the digital skills of their workforce. Topics in the survey included:

- attitudes toward the use of technology
- digital maturity of the local authority
- the L&D offer available to staff in the local authority including digital skills and confidence
- future use of technology.

An invitation to the survey was sent out to a list of Directors of Adult Social Care purchased from Wilmington's Healthcare. To further support completion of the survey, the Association of Directors of Adult Social Services and the Local Government Association (LGA) communicated about the research to Directors and other relevant contacts centrally and via their regional networks.

In total, 24 local authorities completed the survey between 25th May and 30th July 2021. The survey took about 60 minutes to complete.⁵³ More detail about the achieved sample profile and the full questionnaire can be found in the Appendices.

Depth Interviews

Depth interviews with local authorities were also carried out with 17 senior commissioning leads for ASC. Local authorities were purposively selected to reflect the different size, locality and populations across England. These interviews were carried out with local authorities directly approached by IPC, which led on this strand, and by contacting local authorities which had taken part in the survey and agreed to be re-contacted for a follow up interview. See the Appendices for detailed breakdown of participants.

4.4.5 People with care and support needs (both reviews)

Depth interviews

In total, 25 depth interviews were conducted with people with care and support needs. Interviews aimed to capture their views on the use and effectiveness of digital technology and how it may support their care needs. Participants were also asked about the digital skills of the care workers who help and support them. Quotas were set in order to recruit people with a range of different experiences and care needs. This included:

- Age (18-64, 65-79 and 80 and over)
- Funding arrangements (people in receipt of local authority funded care, people who pay for their own care, those who only receive unpaid care from family and friends)
- Attitudes towards technology (from confident to not at all confident)

⁵³ The survey content was designed to be 30 minutes but because staff in local authorities seemed to collaborate and consult colleagues in completing the survey, actual completion times were longer than expected,

- Care arrangements (supported housing, extra care housing, people who use care technology but do not receive paid personal care, those who are an individual employer)

To see a detailed breakdown of the participants who took part in the qualitative research please see the Appendices.

Participants with care and support needs were recruited through a specialist recruitment agency with experience of recruiting this audience. Participants were offered £35 as a thank you for their participation. All fieldwork was conducted in June 2021.

4.4.6 Unpaid carers (both reviews)

Online discussion groups

Four online groups with unpaid carers were conducted with four to six participants in each. All participants provided at least 3 hours of unpaid care per week to a family member or friend. The discussions lasted around 90 minutes, allowing enough time to explore topics in detail but also being short enough to prevent participants becoming overburdened by too much screen time. Participants were offered £45 as a thank you for their participation. This is higher than for the face-to-face interviews to reflect the longer discussion time.

Across the four groups, a range of demographics were captured, including: gender; ethnicity; level of digital confidence; whether they live with the person they provide care for; and the funding arrangements of the person they care for. Please see the Appendices for a detailed breakdown.

Each session was moderated by a member of the research team, while another member of the team took notes. The note-taker remained on mute, with their web-camera turned off throughout the discussion. Participants were informed of their presence at the beginning of each group.

Depth interviews

Seven depth interviews were also conducted by telephone with unpaid carers who did not have the technology to take part in an online group, or who were not digitally confident. This ensured that the research was reflective of a range of attitudes toward technology. Participants were offered £35 as a thank you for their participation. See the Appendices for the quotas which were set for these interviews.

4.4.7 Technology suppliers (technology review)

Online survey

Technology suppliers were invited to complete a survey through an open link which was sent out through gatekeeper organisations. The survey and information about the research were disseminated through newsletters and social media channels. For this strand of the research, there were no set quotas as no publicly available data was available about the size and configuration of the technology supplier market for ASC. The survey was developed with the research aims in mind and included the following topics:

- types of technology provided to the ASC sector
- barriers to developing technology
- enablers which support the development and supply of technology
- impact of the COVID-19 pandemic on demand for care technology and services

- future design and development of technology for ASC.

In total, 77 technology suppliers completed the survey between 30th April and 28th June 2021. The survey lasted approximately 15 minutes. A more detailed breakdown of participants and the full questionnaire are included in the Appendices.

Depth interviews

Technology suppliers were also invited to take part in depth interviews to further explore the technology they provide, the barriers to developing technology and their plans for the future. Participants were recruited via the same organisations as the online survey. Participants in the survey were also asked for their permission to be re-contacted for further research. Those who were happy to be re-contacted were invited to take part in an interview. In total 29 technology suppliers took part in a depth interview.

4.4.8 L&D providers (skills review)

Depth interviews

L&D providers were invited to take part in depth interviews to further explore the L&D landscape, current L&D support offers, how these L&D offers are marketed and funded, as well as examining any barriers to the take-up, and the future of digital skills L&D. In total 7 depth interviews with senior managers within L&D providers working at national and regional level were carried out.

4.5 Case studies

Case studies were carried out as part of the project to gain a more detailed understanding of the adoption of digital technology and development of digital skills, using examples. The case studies were drawn from participants in the main part of the research who mentioned relevant innovations or L&D activities and who were willing to take part in a case study, as well as from recommendations from the ERG and other stakeholders in the research.

The case studies were selected to reflect the range of different types of digital technology used in the sector and the range of organisations and roles within the sector (including local authorities and care providers and the workforce in those organisations, technology suppliers, adults with care and support needs and unpaid carers). The case studies include very specific examples, as well as wide ranging programmes of digital development within an organisation. Where organisations have been identified this is with the permission of those involved in the case study.

The case studies are [published](#) alongside this report. Table 4.1 provides a summary.

Table 4.1: Case studies

Case study name	Setting	Technology/ Skills development area
Connecting health and social care records	Local authority	Digital care records
Costed support planning grid	Local authority	Digital tool enables adults with care and support needs to be fully involved in planning their care
Digital care advisors	Local authority	Digital care advisors to support innovation and skills development
Digital learning hub for social care	Local authority	Digital resource and support hub for care providers and care workers
Digital prescribing for falls prevention	Local authority reablement service	Support and monitoring and consumer technology for falls prevention
Respite care home technology	Care home provider (for people with a learning disability)	Digital technology introduced as part of a rebuild. Includes sensory technology
Support to manage conditions at home	NHS	Digital health check technology for homecare users
Upskilling contact centre staff	Local authority	Training and support for introduction of online resources for contact centre staff
Using virtual reality in a care setting	Care home provider	Virtual reality headsets
'What Matters Most' app	Charity providing services to people with a learning disability	Agile introduction of variety of technology in an organisation, supported by training and peer support

4.6 Expert reference group

Throughout the research, an expert reference group (ERG)⁵⁴ was consulted to ensure the project remained focused on what would be most relevant to the adult social care sector. The ERG was consulted via three meetings. The input of the ERG helped to shape the scope of the reviews, reflect on interim findings, sense test the recommendations and source relevant participants for the case studies.

4.7 Presentation of findings in this report

4.7.1 Quantitative findings

The report comments on differences in the data between different sub-groups within the total samples surveyed. A difference has to be of a certain size in order to be statistically significant and only

⁵⁴ Members of the ERG are listed in the acknowledgements section above.

differences which are statistically significant at the 95% confidence interval are commented on in this report. In addition to being statistically significant, only sub-group differences which are interesting and relevant to the research questions are commented on in the report to ensure that the report contains a coherent narrative.

Survey participants were permitted to give a 'don't know' answer to most of the questions and these responses are included in the analysis. These responses are referred to in the report where they form a large enough proportion to be of substantive interest.

Where percentages do not sum to 100, this is due to computer rounding, the exclusion of 'don't know' categories, or participants being able to give multiple answers to the same question. Throughout the report, an asterisk (*) denotes any value of less than half of 1% but greater than 0%.

4.7.2 Qualitative findings

Unlike quantitative surveys, qualitative methods are not designed to provide statistically reliable data on the population of interest, rather they are designed to be illustrative and exploratory and include the range and diversity of experience in the population of interest. These methods are design to address questions about 'how' and 'why'. In this report qualitative findings are presented thematically rather than quantified.

Verbatim comments from the interviews have also been included in this report. These should not be interpreted as defining the views of all participants but have been selected to provide insight into a particular issue or topic expressed at a particular point in time. All quotes used throughout this report are taken from the qualitative interviews and focus groups unless otherwise stated.

All participants were assured that their individual responses would be anonymous and that information about individual cases would not be passed on to NHSX.

5 Digital skills and the use of digital technology in the adult social care workforce

Chapter summary

This chapter outlines findings on the digital skills of the adult social care workforce. It includes findings from a combined online and telephone survey⁵⁵ (sample of 2,046), 45 depth interviews and 18 discussion groups with the adult social care workforce including care workers, social workers, occupational therapists, administrative staff, and personal assistants. The views of registered managers/assistant registered managers who participated in the survey and 23 care providers who participated in depth interviews are also included in this chapter.⁵⁶ The survey data have been weighted to be as representative of the social care workforce as possible.⁵⁷

The chapter covers digital skills, confidence and attitudes of the workforce, the digital maturity of the organisations they worked in, access to and use of technology and the impacts of the pandemic on digital skills in the workforce.

A range of skill levels were described from basic through to advanced. Participants' self-assessment of their own skills was largely driven by familiarity and opportunity to use technology; those using technology more in their day-to-day roles reported a higher level of digital skills. **There were gaps in digital skills** of frontline staff – notably basic skills including operating devices, and knowledge of different technologies and how to apply them.

Familiarity with digital technology was an important factor contributing to participants' confidence levels. Lack of experience using technology at work for a range of tasks tended to be the main reason for lack of confidence. Overall analysis across questions asked in the survey about digital confidence suggests that **while many in the workforce feel confident performing tasks using digital technology, a significant minority do not feel confident, and overall more than half of participants reported low or intermediate levels of confidence with at least some tasks.** Based on answers to questions about confidence in using different technology, each participant was assigned a summary level of confidence (more information about these levels is provided in [section 5.2](#)):

- None of the survey participants were **absolutely digitally excluded**
- Two-fifths of participants were **'secure' in terms of digital confidence** and a nearly fifth were **'intermediate'**
- **A significant minority do not feel confident**, with over a quarter (27%) being at pre-novice level

⁵⁵ A mixed-mode approach was taken to try and ensure a more balanced sample so that participants without access to online digital devices could still take part.

⁵⁶ The registered managers included in the survey were mainly contacted through the CQC list of care settings. In addition, some registered managers heard about the survey via other channels. The qualitative research with care providers involved interviews with registered managers as well as senior figures in care providers such as managing directors or heads of business improvement. The methodology contains a breakdown of the samples. In this chapter, responses from registered managers were sometimes analysed separately. Where we refer to frontline staff with managerial responsibilities, this is a different group from registered managers.

⁵⁷ More detail about the survey sample and weighting profile can be found in the appendix.

- There was a **notable gap between those reaching the ‘pre-novice’ level of confidence and those reaching the higher ‘intermediate’ and ‘secure’ levels.**
- Overall, 60% of survey respondents reported low levels of confidence with at least some tasks associated with using digital technology.

Staff reported high levels of confidence with particular digital tasks, including:

- **Using the internet** at home and at work (for those who use it). The majority were confident about what they share online, though a sizeable minority had concerns about this.
- **Communicating digitally** – particularly using messaging apps and email. There were slightly lower levels of confidence around taking part in virtual meetings and setting these meetings up.

Participants who were more confident using digital technology tended to be younger workers, those working in organisations that were further along in the adoption of digital technology, and those who managed other staff or had responsibility for digital skills development. Registered managers and administrative staff had higher levels of confidence; social workers reported lower confidence on using some aspects of consumer and care technology.

The main reasons for lack of confidence across all types of digital technology use were not having done the tasks, lack of practice, or only having completed the task with help.

Attitudes to digital technology varied, with both positive and negative reviews expressed:

- There were high levels of agreement that digital technology plays an important role in adult social care. People who had had a higher exposure to digital technology were more positive.
- The benefits of digital technology were predominantly felt to be improved efficiency and safety, more robust record keeping, improved ways of working.
- However, digital technology was also associated with anxiety and stress for some. Poor experiences such as technology malfunctioning, technologies not being fit for purpose, and the time it takes to understand a new piece of technology led to this, and were also seen as key drawbacks.
- Though participants recognised that technology has a range of benefits for people using care and support services, a key concern from a significant minority was that digital technologies will replace face-to-face care.

Nevertheless, there was openness to using digital technology more widely for a range of tasks – particularly among those who were currently using paper-based systems. However, for some, reassurance will be needed to help change the perception that digital technology will overtake face-to-face care, be complicated to use and difficult to learn.

The research explored how digitally mature social care organisations were perceived to be by the workforce, considering a range of factors that contribute to digital maturity.

- The majority of participants were working in organisations using a mix of digital and paper-based systems. Social workers were more likely to be working in predominantly digital settings compared to other roles.

- Digital information was generally felt to be well organised in various care settings, though half would like to see their workplace use more up-to-date technology.
- There was some ambivalence in views of employer approaches to using new technology, and strength of leadership around digital planning and innovation. Care workers were more likely than others to disagree that their employer seeks ways to work more digitally.
- Participants felt well informed about policies and procedures surrounding data protection and information governance – this was seen as integral to the delivery of care services. It should be noted that the research did not explore how these policies and procedures were being applied in practice.

Access to the internet was widespread both at home and at work. The majority of social workers (including principal social workers), administrative staff and registered managers accessed the internet ‘almost all the time’ at work. However, a sizeable proportion of the workforce was not accessing the internet regularly at work, predominantly care workers and nurses. A minority also reported unreliable internet or connectivity problems. **Access to digital devices was also widespread** at home and at work – particularly mobile phones, laptops and tablets. Care workers were less likely to report using these types of technology in their roles. Using personal devices for work related tasks was also reported by a significant minority and among care workers and registered managers in particular.

There has been an increase in the use of technology as a result of the COVID-19 pandemic – the majority of participants across professions reported this. **Video calling platforms** were the most common new technology being used as a result of the pandemic. This has been new for some participants – particularly older groups. **The majority agreed that need for digital skills has increased as a result of the pandemic.** However, participants felt the pandemic has also highlighted the gaps in digital skills within the workforce.

5.1 Overall assessment of digital skills

5.1.1 Overarching self-assessment of digital skills

In the depth interviews and discussion groups, participants were asked to describe their digital skill level. Participants largely thought across their working and home lives when thinking about this. A range of skill levels were described:

- **Pre-basic to basic digital skills** – for example, groups who did not use digital technology extensively, felt they were able to ‘muddle by’ and had to frequently ask for help. Participants describing themselves like this were typically older participants (though not exclusively); care workers and nurses also tended to describe their skills as more basic than people in other job roles.
- **Adequate digital skills** – ranging from people who described their skills as ‘average’ or ‘adequate’ to ‘good’ or ‘decent’. These people said they had the skills to be able to do what they needed for their roles. They might experience issues when required to do something new or adapt to a new technology but knew who to go to for help. People who categorised themselves as having intermediate skills included those who had used systems for a long time. This included occupational therapists (OTs), care home managers and social workers who use technology on a day-to-day basis and so had greater familiarity and confidence with it.

- **Advanced digital skills** – this group were distinguished by their attitude and approach to digital technology: they were able to adapt to new things, troubleshoot problems, learn new skills, and were often the go-to person in their organisation to deal with issues. Again, OTs, care home managers and social workers were part of this group; digital technology was seen as an integral part of their day-to-day work and a requirement for their profession.

“I would say that mine were moderate skills but certainly not advanced. I would need support if I got into any difficulties trying to access any information. But, on the whole, I am able to find information that I need and use the information, write up reports and send them back quite confidently.” Social worker

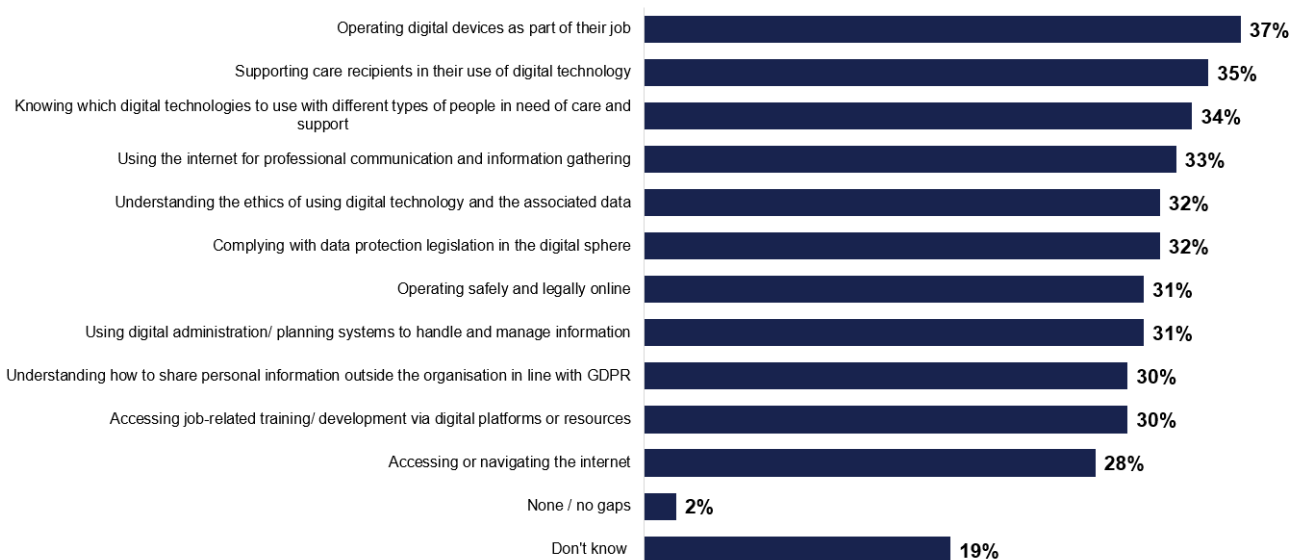
In the survey of the workforce, participants were asked about their level of confidence in doing a range of digital tasks, rather than about their actual skills level. These were combined into a composite measure of confidence. [The findings on confidence are presented in the next section.](#)

5.1.2 Views of skill level of frontline staff

The majority of registered managers and others with responsibility for developing the digital skills of other staff in the survey felt there were gaps in the digital skills of the frontline staff in their workplace. The biggest gaps in digital skills among frontline staff in their workplace were felt to be:

- staff operating digital devices as part of their job (37%)
- staff supporting care recipients to use technology (35%)
- staff knowing which digital technologies to use with different types of people in need of care and support (34%).

Figure 5.1: Views of gaps in digital skills of frontline staff



Base : All participants with responsibility for digital skills development in the workplace (1159)
 MAT_GAP. Thinking about the digital skills of frontline care staff ... in your opinion are there gaps in any of the following areas?

In the depth interviews and discussion groups, those in management roles broadly described a 50/50 split among their staff in terms of good/average versus basic digital skills. They noted that there were a lot of staff still lacking digital skills and confidence. For example, it can take staff a long time to complete something using technology such as typing up notes. It was felt the pandemic had also exposed limitations in the digital skills of some in the workforce. As a result, managers said they had to provide regular support.

“I'd say ours is half and half, so we've got some staff that, you know, don't even know how to use Google Maps or struggle with Google Maps to get to a new address. I've had to have some staff follow me, literally, to clients' houses because they've not been able to use Google Maps.”

Care worker (manager)

The types of skills participants in depth interviews thought needed improvement were predominantly basic skills, such as typing skills; setting up a meeting in MS Teams; knowing how to find things on local systems. There was a concern that because digital technology is always evolving, these staff were at risk of being left behind.

“Some admin will make a decision [that] they're going to do something differently. We're not explicitly told this - there's this expectation that you just know what they're talking about. There's no one to tell me, and I'm [...] left feeling this anxiety [...] that I don't know what I'm doing.”

Social worker

Other types of skills that were felt to be lacking among staff included:

- skills to use local care software (rather than using the device itself)
- lack of understanding of the wider purpose of digital technology – e.g., only being able to carry out discrete tasks or functions and not understanding why this function was required
- inability to troubleshoot problems
- a general lack of confidence to try to work with a new piece of technology.

“I see [errors] repeatedly happening, [...] because they don't understand the fundamentals of all the systems; they're just learning the basic process that they need to do.” Social worker

5.1.3 Drivers of different skill levels

In the qualitative research, where people saw themselves (on the basic to advanced scale) was driven by a number of interrelated factors, many of which were determined by how familiar people were with using digital technology at home or at work:

- **Profession or role:** Advanced skills were described by people in more senior management roles – i.e., those overseeing staff, holding roles in the ‘back office’ rather than frontline, and regularly using technology in their day-to-day roles. Care workers tended to describe lower levels of digital skills linked to using less digital technology in their roles. OTs (and to a lesser extent social workers) stood out as having a higher awareness of and using more wide-ranging technology due to its prominence in their role, especially a culture of record keeping, and prescribing technology to people who use care and support services.

- **Age** was perceived to be an important factor across the discussions. Older participants in the research often related their lack of skills or confidence to their age: they were more likely to describe their skills as basic, felt younger colleagues were more confident and familiar with technology, and described being reliant on younger colleagues to help them with technology. Older participants also described a high level of frustration when using digital technology. However, there were some exceptions; for example, there were examples in the qualitative discussions of younger people describing themselves as having a low level of digital skill, and of some older participants reporting a higher level of skills or confidence. Older participants were also more likely to be willing to ask for help in performing digital tasks and were more interested in learning new digital skills.

“I think again it varies according to age. So, I think the younger members of staff, their digital skills are far higher and they're more adept to change and they just seem to fly with it, whereas older members of staff struggle more because they're not; we're more wary of it and we don't like change.” Social worker

- **How digital skills were defined** was also an important factor. For example, participants' expectations around what constitutes adequate digital skills, as expressed in the interviews and groups, was primarily based on whether they were able to do what was required for their jobs. If they were satisfied that they could do this, then they would describe their skills as sufficient. Participants were generally not thinking about carrying out more complex tasks using digital technology or the broader landscape of digital technology beyond their day-to-day work.

The reasons for lack of skills provided by those in management roles reflect the reasons the wider workforce themselves gave for the level of their own digital skills. They predominantly focused on age; socio-economic factors; familiarity with technology and whether technology was part of the job description (i.e. it was not necessarily a central part of some care workers' roles). Managers also noted that important reasons for lower digital skills included:

- **Socio-economic factors.** More senior staff observed that some of their frontline staff (e.g., care workers) may not have access to technology or the internet at home because they don't have the financial resources to pay for it. This means they may lack the confidence and skills to use technology at work. Low literacy and language skills were also mentioned as barriers to using technology at work.
- **Lack of opportunity to retain digital skills following learning or training:** It was reported that frontline staff were not using technology enough to allow them to become familiar with it. For example, they may not be able to put learning from training on digital systems into practice, as it was not part of their day-to-day work, so the learning was lost. This may indicate that it would be useful to incorporate 'bitesize' refreshers or top-up training into standard training routines.

Attitudinal barriers were also noted by managers, including lack of perceived incentive to use technology (described in more detail in [section 5.3](#)).

5.2 Confidence using different types of technology

5.2.1 Overall assessment of confidence

Several questions throughout the survey asked participants to rate how confident they were undertaking various tasks using digital technology. At these questions, participants were asked to rate themselves on

a scale of 0 to 10, where '0' meant 'not at all confident' and '10' meant 'very confident'.⁵⁸ Analysis of these individual questions asking about confidence is presented throughout the remainder of this chapter. In addition to analysis of confidence in undertaking individual digital tasks, an overall analysis has been conducted using the survey data.

Background and method

The analysis discussed below aims to provide an overall assessment of confidence in using digital technology among the adult social care workforce. The overall measure has been calculated by looking across different survey questions that asked about confidence using digital technology in a combined way (rather than just looking at individual statements), and by creating a new variable in the data for 'overall confidence level'. The 'overall confidence level' was split into six groups, that are outlined below:

1. **Digitally excluded:** has no access to digital devices at home or work⁵⁹
2. **Pre-novice:** currently lacks confidence in using basic digital technology
3. **Novice:** can use a digital device, access video calls, and do online training
4. **Developing:** can use apps, use a digital device, access video calls, and do online training
5. **Intermediate:** can use email and manage digital data, use apps, use a digital device, access video calls, and do online training
6. **Secure:** has confidence in digital skills used in an office setting related to adult social care, can use email and manage digital data, use apps, use a digital device, access and arrange video calls, and do online training⁶⁰

These overall levels were created by attributing various tasks in using digital technology to each level. The tasks related to individual questions asked throughout the survey and focused on topics that all participants were asked about. The composite score only includes digital tasks considered to be 'standard' and widespread in care settings and across roles, and does not include the ability to innovate digitally or provide leadership; findings on these issues are presented [separately in this report](#).

In order to reach each of these overall levels of confidence, a survey participant had to rate themselves as being 'confident' (rating themselves as a 7 or more out of 10) for conducting the various digital tasks for each level. To score in the highest group ('secure'), participants had to score at least 7 out of 10 on all the questions contributing to that level. This means if a participant scored themselves 7 or more out of 10 on all of the questions, they would be assigned a 'secure' level of confidence.

For this survey, level of confidence using digital technology to perform tasks was used rather than measuring overall skills in using digital technology. There were several reasons for measuring confidence rather than digital skills, the main one being that people were better able to report on their

⁵⁸ When interpreting these findings it should be noted that these self-reported confidence scores are related to what participants know about using digital technology, likely related to how they currently use the technology required for their role. Participants may have scored themselves differently out of 10 for confidence depending on their knowledge of the full extent of the capabilities of a particular technology. Findings from the depth interviews showed that participants were focused on using digital technology in the way they had been shown to complete tasks they needed to do.

⁵⁹ Those who only had access to a mobile phone with no internet access were included in this category.

⁶⁰ Because of routing in the questionnaire, in order to reach this level, participants had to have had internet access 'all the time' at work because those without internet all the time were not asked all the questions needed to reach this level.

own confidence rather than assess their skill level. More detail about the creation of the overall confidence measure, the individual questions included, and the rationale are provided in the appendix.

Analysis of overall confidence

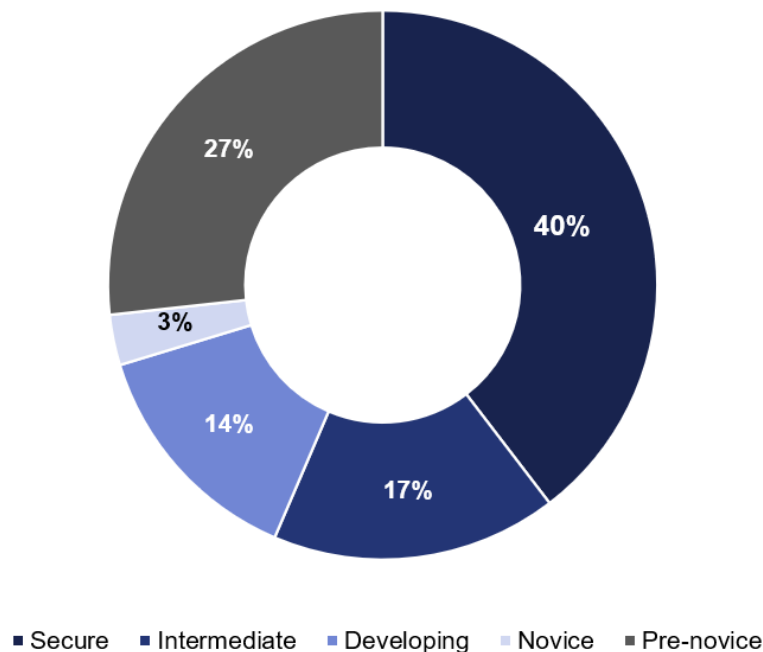
None of the adult social care workforce who participated in the survey were fully digitally excluded – all participants owned or used at least one digital device either at home or at work.

While most participants indicated they had ‘secure’ levels of confidence (40%), more than half of the workforce (60%) reported low or intermediate levels of confidence with at least some digital tasks.

Over a quarter (27%) of participants fell into the ‘pre-novice’ group for digital confidence. There was notable a gap between participants who reached the ‘pre-novice’ level and those who were either ‘intermediate’ or ‘secure’, with fewer participants reaching the ‘developing’ (14%) and ‘novice’ levels (3%). This suggests that while many do feel confident performing a variety of tasks using digital technology, a significant minority do not feel confident with basic digital tasks such as turning on a device, connecting to Wi-Fi, using a touch screen or mouse, and communicating using video calling or messaging apps. This may relate to other findings found in this review suggesting that the workforce having the opportunity to use technology is key.

Figure 5.2: Overall confidence level

Overall confidence level (derived variable across various statements)



Base : All participants except those who coded ‘Don’t know’ or ‘Not applicable’ at specific confidence questions (1888) Overall confidence level. Various statements throughout the survey.

A discussion of some of the individual statements in the survey about confidence performing digital tasks is provided from [figure 5.3](#) onwards.

5.2.2 Subgroup differences in confidence with technology

The qualitative discussions showed that familiarity with technology was an important factor that contributed to participants' confidence levels. Those who were not using technology at work, especially care workers, tended to report lower confidence than other professionals, regarding their ability to learn and use digital technology. Those with greater experience using technology, and those who use technology at work, tended to have more confidence. For example, OTs tended to report a greater level of confidence than those in the other professions interviewed. In particular, they felt that digital skills were a pre-requisite for their job, which involves recommending or prescribing care-related technology for people with care and support needs.

The survey showed that overall levels of confidence varied by job role, with care workers on average being less digitally confident than other job roles. Higher proportions of registered managers, registered nurses and administrative staff fell into the 'intermediate' or 'secure' levels of confidence (77%, 74% and 70% respectively) compared with care workers (53%). Care workers and social workers were the groups most likely to be 'pre-novice' with 30% of care workers and 25% of social workers in this group compared with 12% of registered managers and 15% of registered nurses. Among registered managers specifically, those working in homecare settings were more likely to reach the 'intermediate' or 'secure' confidence levels (83%) than registered managers working in care homes (74%).

Social workers reported lower confidence on some specific aspects of consumer and care technology. For example:

- **helping people receiving care and support to use consumer technology** (an average confidence rating of 6.85 out of 10 among social workers)
- **using care technology to provide direct care and support** (average rating of 7.01 for social workers compared with 8.48 for care workers and 8.63 for registered nurses).

Survey participants who managed other frontline staff were on average more likely to have higher overall levels of confidence. Over three-quarters (67%) of managers were 'intermediate' or 'secure' compared with 51% of non-managers. Possibly relating to this finding, those who did not provide direct care or support to others were more likely to be 'intermediate' or 'secure' than those who provided this direct care or support (69% compared with 54% respectively), while those who did provide direct care or support were more likely to be 'pre-novice' (29% of those who provide direct care or support in their role versus 18% of those who do not).

The survey findings suggest that opportunity to use the internet and access to digital technology relates to overall digital confidence. Confidence in using digital technology varied according to the extent to which the organisation had adopted digital technology. Over three-fifths (62%) of those working using mainly digital based systems, and 56% of those using both digital and paper-based systems fell into the 'intermediate' or 'secure' confidence groups compared with 48% of those working using mainly paper-based systems. Those using paper-based systems were more likely to be 'pre-novice' (37%), but even among those working in organisations that used mainly digital systems to store and manage information, 23% were 'pre-novice'.

Similarly, those with access to the internet at work were more likely to reach the 'intermediate' or 'secure' confidence levels than those without internet access at work (58% with access versus

27% of those without access). Those without internet access were more likely to fall into the 'pre-novice' group (55%, compared with 25% of those with internet access).

Survey participants who used any forms of care technology in their role (such as personal alarms or monitoring equipment fitted with sensors) were overall more likely to be more confident than those who did not use this technology. Over half (55%) of those who use care technology in their role were 'intermediate' or 'secure' in their digital confidence, compared with under half (45%) of those who do not use care technology in their role.

Survey participants working in organisations that had made greater use of technology since the COVID-19 pandemic were also more likely to be 'intermediate' or 'secure'. Three-fifths (62%) of these participants were 'intermediate' or 'secure' overall, compared with 43% of those who had not seen any change in the amount digital technology was used in their workplace. Conversely, those who had not seen any change in the use of digital technology in their workplace were more likely to fall into the 'pre-novice' group than those who had seen an increase in use of digital technology (38% versus 21% respectively).

Confidence was also linked to willingness to learn how to use new or different technology in the qualitative discussions. [Lack of confidence was seen as a barrier to participants' willingness to try new technology or new skills.](#) For example, care providers and managers of care workers reported that some of their staff had the skills necessary to use digital technology but lacked confidence in transferring those skills to unfamiliar devices.

"[Care workers] that I've worked with, especially if they've been doing it for twenty, thirty years and not used technology as much, they're not so confident using it. They [worry] that they might hit the wrong button and [...] the visit hasn't been completed." Care worker

The survey data showed that those with responsibility for digital skills development were more likely than those without this responsibility to reach the 'intermediate' or 'secure' confidence levels (62% and 53% respectively). However, it was noteworthy that among those with responsibility for digital skills development among staff in their organisation, 22% had 'pre-novice' confidence levels, 3% novice and 13% developing, which may impact on their ability to help others develop their skills.

Those who had received digital skills training in the last year were less likely to fall into the 'pre-novice' group than those who had not received training (27% compared with 41%). Receiving training in the last year was also associated with higher confidence in organising information and content using files and folders on a digital device.

Other forms of support with digital technology were also related to digital confidence. The survey participants who know who to speak to about sharing data or keeping data secure were more confident about using the internet for work. Those who know who to speak to also had higher average confidence ratings for safely storing digital client records⁶¹, scanning in documents⁶², and securely transferring data about those who use care services.⁶³ They were also more likely to said they know what to do to stay secure online at home (85%) and at work (89%), compared with those who do not know who to speak to about this (76% for both staying secure online at home and at work).

⁶¹ 8.60, compared with 7.03 for those who do not know who to speak to.

⁶² 8.40, compared with 6.80 for those who do not know who to speak to.

⁶³ 8.08, compared with 6.18 for those who do not know who to speak to.

Age was also seen as an important factor when thinking about confidence. Some older participants (especially those who started their careers before digital technology was as widespread and embedded as it is now) reported feeling intimidated by technology, and there was a theme of worry that data would be accidentally deleted or not saved correctly. However, a number of senior and older participants felt that while they may lack some of the digital skills of their younger counterparts, they had more confidence to ask questions and seek help with digital technology. Older, more experienced staff suggested that their younger colleagues may feel embarrassed about asking a 'stupid' question.

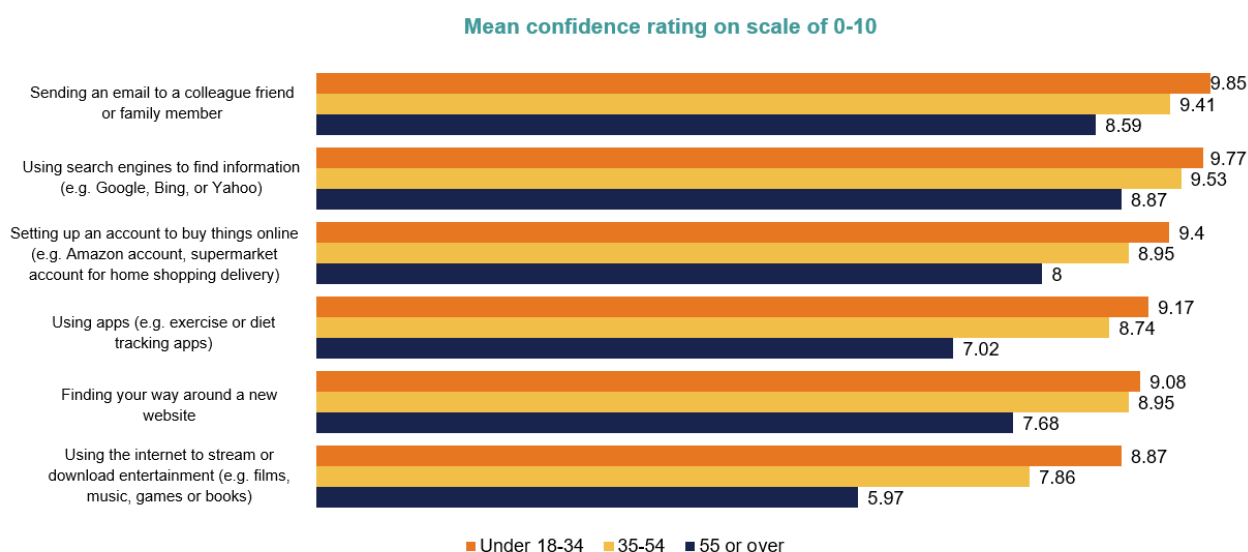
“[With younger colleagues on a training session] I'm usually the one that will ask first. I'll be like, 'Right, I'm going to ask it because no one else will – but we don't know what we're doing!' I don't have to worry about asking a stupid question.” OT

The analysis of the survey data also shows some differences in self-reported digital confidence by age. Although generally digital confidence was relatively high across all groups, **the data show that younger workers were more confident than older workers across almost all aspects of digital confidence.** Younger participants were more likely to be 'intermediate' or 'secure' – three-fifths (62%) of those aged under 18 to 34 fell into these groups, compared with 37% of those aged 55 and over. Conversely, two-fifths (43%) of those aged 55 and over fell into the 'pre-novice' category compared with 21% of those aged 18-34.

This age pattern is also found when looking at specific digital tasks. Figure 5.3 shows this pattern for use of the internet in their home lives among those who do not use the internet for work and similar patterns were also found for use of technology in the workplace.

The age profile of workers varied by role with care workers being younger than managers and registered professionals on average. For example, after weighting 14% of care workers responding to the survey were 55 and over compared with 23% of social workers, 26% of registered nurses, 30% of registered managers and 31% of OTs. This means there is a complex relationship between digital skills, age and role. Registered managers and those in registered professions tended to be more confident but also older on average. Care workers tended to be less confident but also younger on average, so some of the differences by age and role may be hidden in the analysis. Within each group of workers, the age patterns are even clearer than shown in the analysis by age.

Figure 5.3: Confidence in undertaking tasks using the internet, by age group



Base : All participants who do not have access to the internet at work, and those who do not work from home (299)
 INT_CONFIGEN. Assuming you were able to access the internet, on a scale of 0 to 10 how confident, if at all, do you feel in your ability to do each of the following?

5.2.3 Confidence in using the internet and staying secure online

Confidence using the internet at home

Those surveyed who did not access the internet as part of their job (either at their workplace or from home) were confident doing a range of things online at home. This group were asked to rate their level of confidence on a scale of 0-10 for various activities using the internet, where 0 meant ‘not at all confident’ and 10 meant ‘very confident’. They were most confident using search engines to find information online (on average, staff rate their confidence as 9.51 out of 10 in doing this), followed by sending an email to a colleague, friend, or family member (an average⁶⁴ rating of 9.45 out of 10). Most staff rated themselves as the highest possible score (10 out of 10) for doing these things (82% rated themselves 10 for using search engines and 81% rated themselves 10 for sending an email).

Participants were also on average very confident in setting up online accounts to make online purchases (an average rating of 8.97 out of 10), finding their way around a new website (8.79), and accessing public services online (8.75). There were slightly lower levels of confidence in using apps (average of 8.64 out of 10) and using the internet to stream or download entertainment (7.97 out of 10). 17% of participants were not confident streaming or downloading entertainment (rating themselves 0-5 out of 10), and 5% rate themselves a 0 out of 10 for confidence in doing this.

Confidence using the internet at work

Those surveyed who had internet access for work were also generally very confident in undertaking tasks online. These participants rated themselves on average 9.34 out of 10 for confidence in using search engines to find work-related information, 8.90 out of 10 for buying things online for work, 8.84 for finding their way around a new work-related website, and 8.79 for using apps such as exercise or dieting apps.

⁶⁴ For questions in the survey that asked about confidence on a scale of 0-10, the average reported is the mean.

Figure 5.4: Confidence of the adult social care workforce in using the internet for work related tasks



Base : All participants with any access to the internet in their role in ASC (2034)
 INT_CONFWORK. And assuming you were able to access the internet, on a scale of 0 to 10 how confident, if at all, do you feel in your ability to do each of the following as part of your job?

A minority were not confident buying things online for work or using apps (7% of participants rated themselves between 0 and 5 on both of these activities). 5% were not confident finding their way around a new work-related website and 4% were not confident using search engines for work.

Sharing information online

The majority of the adult social care workforce surveyed self-reported that they were careful with how they share information online, but a significant proportion were still worried about using the internet to share information. Nine in ten (91%) survey participants said they were careful about what they share online and that they know what to do to stay secure when online for work (87%) or at home (84%), though over two-fifths (43%) were worried about using the internet to share information. Seven in ten (72%) were confident that they know who will see the information they put online in their personal lives.

5.2.4 Confidence in using digital devices

Levels of confidence among survey participants were high for using digital devices.⁶⁵ On a scale of 0 to 10 (where '0' meant 'not at all confident' and '10' meant 'very confident'), three-quarters (76%) of participants rated themselves the maximum possible rating of 10 for confidence in turning on digital devices, with an average rating of 9.34 out of 10. Most were also confident using the controls on digital devices (an average rating of 9.33 out of 10), connecting devices to Wi-Fi (9.13), and finding and opening apps on digital devices (8.99).

Participants were slightly less confident organising information and content using files and folders on a digital device, with an average rating of 8.27 out of 10.

⁶⁵ The term 'digital devices' was used as a catch-all in the survey and covers both simple digital devices and those which are more complex.

5.2.5 Confidence in digital communication

The adult social care workforce surveyed were most confident using messaging apps like WhatsApp or using email (such as NHSmail) to communicate digitally.

Figure 5.5: Confidence of the adult social care workforce in communicating digitally



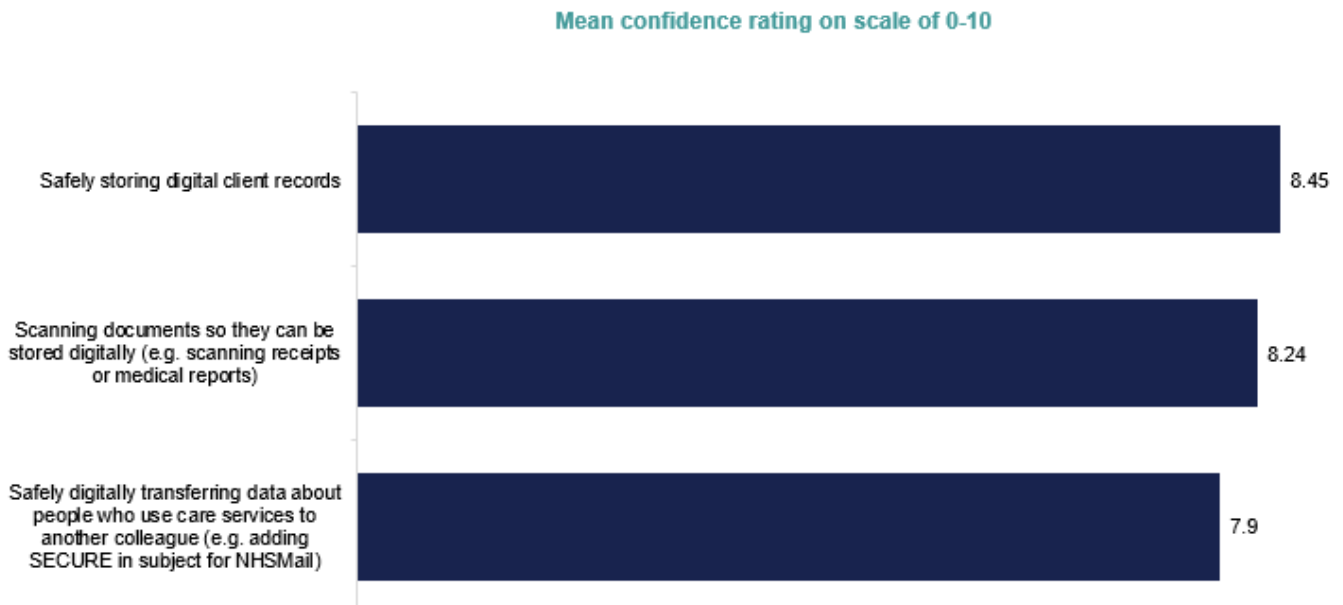
Base : All participants (2046)

COMMS_CONF. Assuming you were able to access the internet, on a scale of 0 to 10, how confident, if at all, would you be carrying out the following tasks as part of your job? If these tasks are not part of your job at the moment, please say how confident you would feel about doing them if you were asked to do so by your manager or another colleague.

5.2.6 Confidence in information storage, sharing and usage

Confidence among the overall workforce in storing, sharing & using digital information

Figure 5.6: Confidence of the adult social care workforce in storing and sharing digital information securely



Base : All participants with internet access (work or home related) (2044)

DIGSYS_CONF. Assuming you were able to access the internet, on a scale of 0 to 10, how confident, if at all, would you be carrying out the following tasks as part of your job?

Confidence among registered managers in managing records & analysing data

Registered managers surveyed were specifically asked about additional tasks involving storing and using digital information that they were likely to be required to perform as part of their role.

Registered managers were more confident in managing records and financial accounts digitally than they were using spreadsheets or similar software to analyse data. Registered managers rated themselves on average a confidence level of 8.16 out of 10 for managing records and accounts, and 7.80 out of 10 for using spreadsheets to analyse data.

5.2.7 Reasons for lacking confidence when using digital technologies

Reasons for lacking confidence using digital technologies were similar across the activities outlined. The most common reasons centred around having never done these activities⁶⁶ or having little experience in doing them.⁶⁷ Other less common reasons included preferring to do things in person or by phone,⁶⁸

⁶⁶ 61% of those who lacked confidence in storing, sharing or using information digitally at work gave this reason, and 44% of those who lacked confidence to communicate digitally.

⁶⁷ Mentioned by 29% of people who lacked confidence to use the internet for work related tasks, and 26% of those who lacked confidence to communicate digitally.

⁶⁸ Mentioned by 19% of those who lacked confidence to use the internet for work related tasks, and 28% of those who lacked confidence to communicate digitally.

having only managed to complete these tasks with help in the past,⁶⁹ and concerns over online scams and fraud.⁷⁰ A minority also mentioned the unreliability of their internet connection or device.⁷¹

5.2.8 Providing care and supporting people with care and support needs in using technology

Confidence among the workforce already using care technologies

Frontline staff⁷² surveyed who use technology designed specifically for care generally felt confident using this technology to provide direct care and support to people. There was an average rating of 8.46 out of 10 for confidence among this group (where 0 meant 'not at all confident' and 10 meant 'very confident').

Confidence among the workforce who do not currently use care technologies

Frontline staff surveyed who do not already use care technologies⁷³ were less confident in their ability to use this technology than if it was part of their role. The average confidence rating out of 10 for this group was 6.27 for hypothetically using these kinds of technology for delivering care. A third (33%) said they would *not* be confident using this technology (rating themselves between 0 and 5 out of 10).

Frontline staff surveyed providing direct care and support to people were generally quite confident in helping someone receiving care and support to use widely available consumer technology, but confidence levels were lower than for some other digital activities. The average confidence rating was 7.98 out of 10 for helping people with technology such as tablets, smartphones, audio assistants, video calling platforms and health or wellbeing apps.

Confidence in helping people receiving care & support with digital tasks

If someone receiving care and support needed help, most frontline staff surveyed providing direct care and support would be confident helping them to find information online. The average confidence rating among this group surveyed was 8.84 out of 10 for this task. Staff were slightly less confident setting up and supporting a remote consultation (e.g. a telephone or video consultation with a GP), with an average confidence rating of 7.75 for doing this. This was followed by advising people receiving care and support on how care technology such as personal alarms or sensors could support them (an average confidence rating of 7.67 out of 10).

5.2.9 Accessing L&D online

Confidence levels were high for accessing online training/e-learning and online resources for learning. The workforce was asked in the survey how confident they felt accessing online training or e-learning (either as self-directed or group learning) and online resources to learn something new. The average rating was 8.91 for accessing online training or e-learning and 8.87 for accessing online resources.

Lack of practice and a preference for in-person learning were the main reasons for low confidence in accessing online resources for learning. The survey asked those who rated their confidence in accessing either online training or online training resources between 0 and 5 to find out

⁶⁹ Mentioned by 20% of people who lacked confidence to communicate digitally

⁷⁰ Mentioned by 14% of people who lacked confidence to use the internet at home.

⁷¹ 9% of those who did not feel confident using the internet for work related activities gave this reason.

⁷² Excluding registered managers and administrative staff

⁷³ Survey participants were asked to think about personal alarms, monitoring equipment fitted with sensors, voice operated or remote-controlled technology and eMAR when answering this question.

why they had given a low confidence rating. Among those included in this group, the two main reasons for their lack of confidence were not having had much practice at accessing online learning resources (45%) and a preference for learning new things in person rather than online (34%). Other reasons, mentioned by at least one in ten of this group, include unreliable digital devices (11%), never having tried to access online learning (11%) and difficulty in using digital devices for this purpose (10%).

5.3 Attitudes to using digital technology in the workplace

5.3.1 Impacts of digital technology on adult social care

Job efficiency and communication

Most of the workforce surveyed agreed that digital technologies play an important role in certain aspects of adult social care delivery. The survey explored perceptions of digital technology in adult social care delivery using a range of statements. Over eight in ten participants agreed that digital technologies were important in adult social care (82% overall and 94% of participants that took part in the survey by telephone) and that digital technologies helped them communicate with colleagues and the people they support (82% overall and 89% of participants that took part by telephone). Furthermore, 80% felt that digital technologies can help them do their job better or more efficiently (91% of participants who took part in the survey by telephone versus 79% of those that took part online).

Care workers were less positive than others about the role of digital technology in the delivery of adult social care. Care workers surveyed were less likely to agree than those in most other job roles⁷⁴ in three areas:

- Digital technologies were important in adult social care: 79% of care workers agreed versus 87% or more of those interviewed in other job roles.
- Digital technologies help me communicate with colleagues and the people I support: 79% agreed versus 89% or more of those interviewed in other job roles.
- Digital technologies can help me do my job better or more efficiently: 77% agreed versus 87% or more of those interviewed in other job roles.

The data also show that managers, those who were not in a direct care role, those who had received digital skills training in the last 12 months and those who were using more digital technology since the start of the COVID-19 pandemic were more likely than other surveyed members of the workforce to agree that digital technologies were important in adult social care and could improve job efficiency.

The benefits of technology in social care were discussed in the qualitative research. These included:

- **Improved efficiency:** this was the most important reason provided in the discussions. Participants felt that use of technology would allow them to do certain tasks more quickly such as accessing details about a client (e.g., regarding their medication); ordering equipment online; and communicating (with other organisations, with people using care and support services and their families).
- **More robust record keeping and easy access to records/information:** it was noted that using digital care record systems allowed reporting outputs to be more detailed and sophisticated, and

⁷⁴ Except for occupational therapists/ principal occupational therapists, where the difference was not statistically significant because of small sample size.

therefore more robust – for example, the system will prompt people to ensure they had added the right information. These systems also enabled users to access information easily and know where information was kept, making it easier to keep track of things. Managers and staff in the office were also able to monitor when work has been completed and were alerted to any issues immediately.

- **Improved working practices** including flexible working, especially for those working in the community who were able to complete their work wherever they want, and enhanced communication between organisations
- Other benefits mentioned, though to a lesser extent, included:
 - **value for money or better use of time:** for example, not having to travel to face-to-face appointments; allowing carers to spend more time with people most in need, and less time with those with a low level of need who can be engaged with digitally
 - **productivity and convenience:** assessments carried out remotely can be convenient (e.g. done in the evenings) and involve the family, and more can be completed in one day
 - **data protection:** less risk of misplacing papers containing confidential information.

"I definitely think that digitally it makes things a lot quicker, for instance I don't have to go to a peripheral store to collect a piece of equipment, I can order it to the customer and then go and review it when I'm there." OT

"I feel if [our care record system] was in the digital way, I think it would be better, because then at least it could have prompts and help parts on it to say, 'Is this correct?', and give a definition...because I've noticed some carers have written in [paper] completely the wrong information or have left it blank because they don't know what to do." Care worker (manager)

However, there were key drawbacks and concerns noted around increasing the use of digital technology in social care. The central concerns were around frustrations associated with working digitally; technology malfunctioning; and poor design of digital systems. These are described below.

Working digitally was associated with anxiety and stress. Participants who were less familiar or confident using technology described a range of emotions surrounding using it including: fear, concern, panic, frustration, and feeling overwhelmed. This was caused by: not knowing what to do when things go wrong, feeling unsupported, lacking confidence compared to colleagues (which may be particularly relevant for the 16% of participants falling into the 'pre-novice' group for overall confidence in using digital technology), being put off by 'jargon' associated with digital technology, and the time it took to become familiar with a new piece of technology. There were also examples where some people had left, following the move to a digital system that they were unable to get to grips with.

"It fills me with anxiety and frustration about the fact that the job I do, I don't find difficult, in terms of the role I have and the decisions I have to make...but it's all the technology side of things which completely brings me down." Social worker

Digital technology was seen as being prone to faults. Participants were concerned that the systems and technology they were using can be prone to glitches, crashing, and were vulnerable to power failures and connectivity problems. This supports the survey findings that 39% said that internet access was not available in all parts of their workplace, 31% said there was no broadband connection in their

workplace(s) and 29% said there was no stable connection. There were cases where people were carrying paper notepads with them to visits as a backup or carrying out their work on paper before transferring information to digital systems, demonstrating that there are still currently uses for paper for notetaking in ASC.

“It’s quite difficult to say, ‘we want to have just digital’, because if something goes wrong then you haven’t got access to that care plan for that day...you can go to the filing cabinet [if it’s on paper].” Care worker (manager)

Digital systems used in care settings were seen as not always being fit for purpose. Participants described a lack of intuitive, easy-to-use, and tailored systems in their workplaces. Instead they were using systems that were not designed for social care or for their specific area of work; systems were not optimised or did not do all the tasks they required of them. There was also a lack of interoperability of different systems described. As a result, digital systems could be difficult to navigate, and time-consuming to use. Participants wanted to see more systems that were designed with end-user in mind, or adaptable to different care environments

“The problem with that software is that it’s very generic...they cover some aspects of the work but some are side-lined so that’s a problem with those off the shelves software. We are still exploring personalising software for our needs but are unable to find one.” Care provider

Another drawback of digital technology noted by participants was the time it **can take to get to grips with a new system or equipment** – this can be a deterrent to using technology more widely.

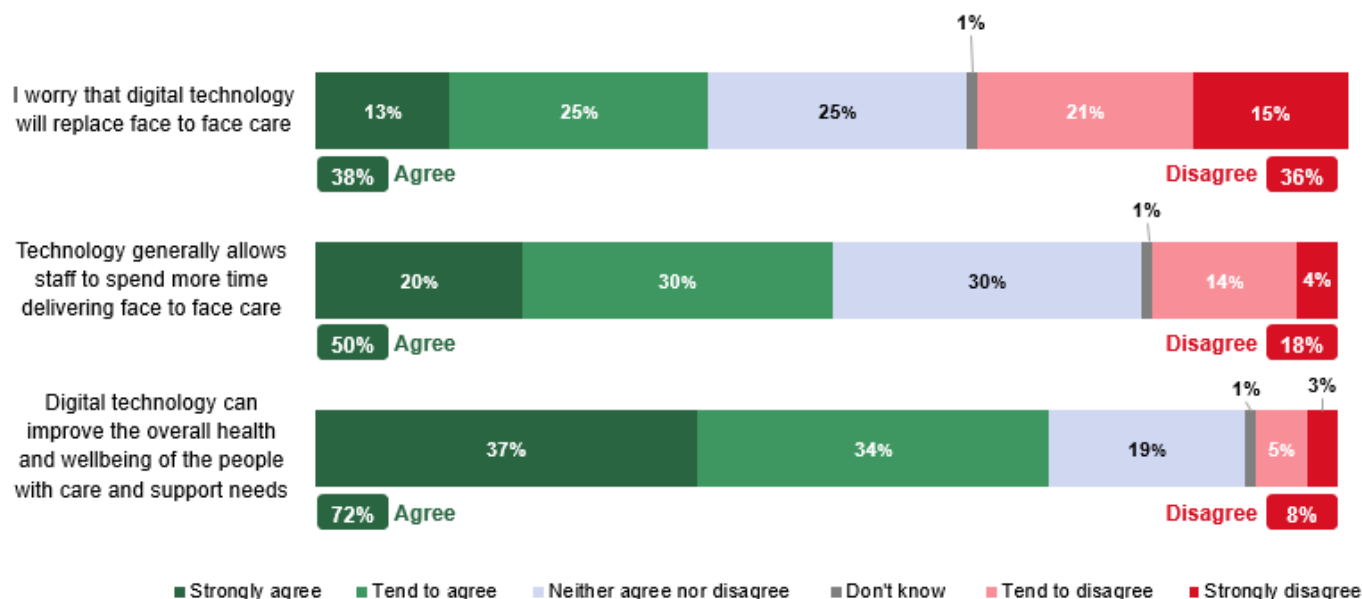
“We started [using a new digital system] in February and we’ve not quite got the hang of it all, as of yet...it’s now taking up so much time that you’re missing out on the care aspect of how we work.” Care worker

Impact on those in receipt of care and support

Four in ten of the workforce were worried that digital technologies will replace face-to-face care. A number of statements in the survey explored perceptions of how digital technology affects face-to-face care and the needs of those receiving care and these are shown in Figure 5.7.

Despite these concerns, there were also more positive views that this technology can save staff time and be used to improve the overall health and wellbeing of those with care and support needs. Half (50%) of participants agreed that technology generally allows staff to spend more time delivering face-to-face care, and nearly three-quarters (72%) agreed that digital technology can improve the overall health and wellbeing of people with care and support needs.

Figure 5.7: Attitudes towards digital technologies in care



TECH_ATT2. Please say how much you agree or disagree with the following statements. 'Not applicable' not shown (1%)
 Base : All participants in direct care role (1341)
 CARE_ATT. Please say how much you agree or disagree with the following statements.
 Base: All participants (2046)

Social workers were particularly concerned about the impact of technology on their time to deliver face-to-face care. Among the social workers (including principal social workers) who participated in the survey, a third (32%) *disagreed* that technology allows staff to spend more time delivering face-to-face care (versus 18% or less among other frontline job roles⁷⁵).

Recent exposure to digital skills training was associated with more positive views. Those who received digital skills training in the last 12 months were more likely than other members of the surveyed workforce to agree that digital technologies can improve the overall health and wellbeing of the people with care and support needs (71% versus 60% respectively) and that technology allows staff to spend more time delivering face-to-face care (47% versus 35%).

The qualitative research also highlighted the impacts of technology on people receiving care. **Benefits for people using care and support services** including improved independence and the benefits for their wellbeing that this brings. However, there were also concerns about negative impacts on those receiving care.

The risk to face-to-face care was the most important concern raised. Some participants across all groups were concerned about the impact of digital technology on face-to-face care. This includes virtual interaction replacing face-to-face, but also technology reducing the quality of face-to-face care if frontline staff are required to type into a screen while attending to a person. participants reported seeing this in practice, for example some care workers felt that they were spending a lot of time logging things in digital systems, or people needing their care had questioned them about why they were using a tablet or digital system in their presence. It was noted that digital technology does not have a place in all aspects of care – it was not felt to be appropriate in all settings, with all types of people, and in all scenarios. The

⁷⁵ Except for occupational therapists/principal occupational therapists, where the difference is not statistically significant.

increasing use of digital technology raised concerns about the quality of service provided to people in future, and the implications this has for job satisfaction among the social care workforce.

“Sometimes...the technology might not be the best option and makes things less personal for a client and for the carer. So, the best is a good balance between using technology and also personal connections...we don't want staff to be spending the majority of the care call on their mobile.” Principal social worker

“[When you use a digital record-keeping device, residents] always ask, 'What are you doing?' You have to say, 'I've got to log [this].’ Obviously, they don't understand that. They just want their cup of tea and they don't understand what you're doing.” Care worker

5.3.2 Openness to using new technology

Support for digital technology now and in the future

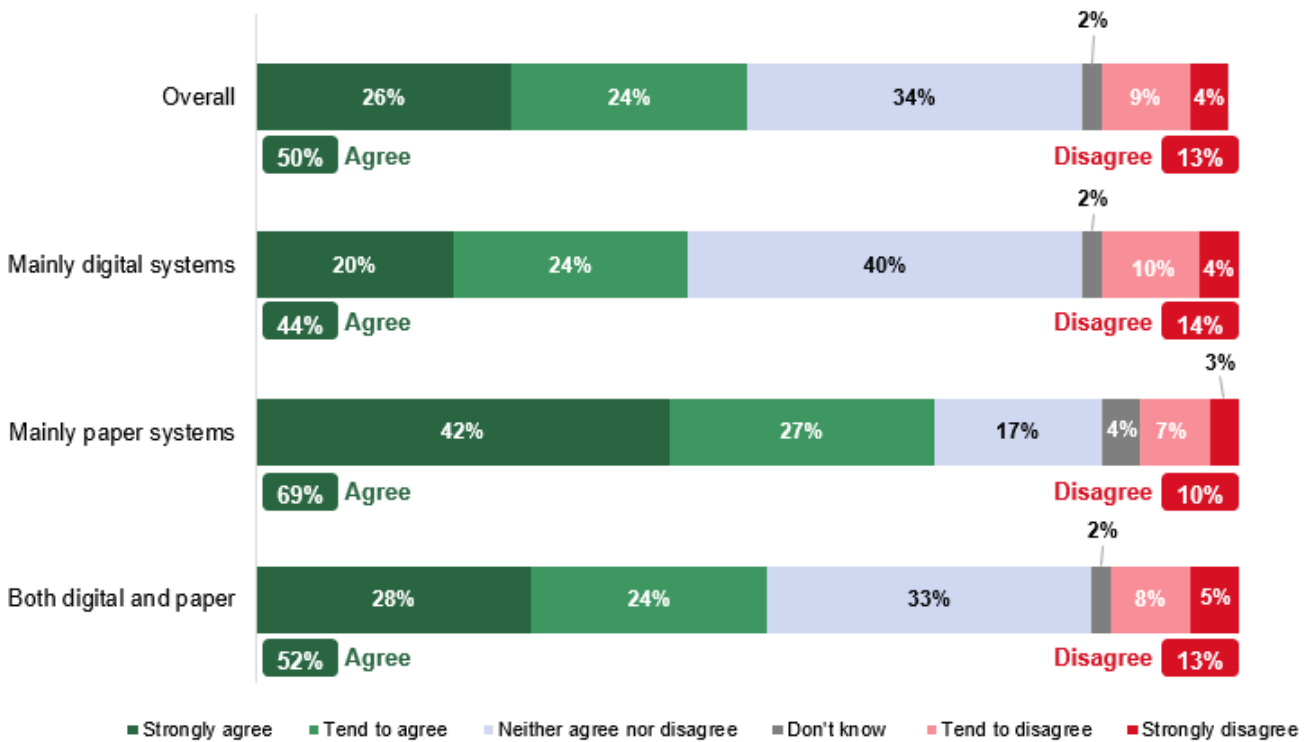
There was openness to using digital technology as part of adult social care delivery. Several statements were included in the survey to explore the openness of the workforce to using new technology now and in the future. Most were happy to use new technology in their job if it was clearly explained to them (88%) and supported the use of digital systems to store and manage information in their workplace (81%).

Care workers were less supportive than other job roles about using digital systems to store and manage information. Among the care workers surveyed, 78% supported this approach compared with 91% or more of other surveyed job roles.⁷⁶ There were no significant differences in how supportive care workers were by the type of setting they work in (and the same is true of registered managers).

Views were split about using more digital technology for work planning or care management. While half of the surveyed workforce (50%) would like to use more digital technology for work planning or care management, a substantial minority (36%) were unsure, as shown in Figure 5.8.

⁷⁶ Except for occupational therapists/principal occupational therapists, where the difference is not statistically significant, owing to small sample size.

Figure 5.8: Attitudes towards using more digital technology for work planning or care management, by type of system used at work for storing information



Base : All participants (2046)

MONITOR_ATT. How much to you agree or disagree with the following statements: I would like my workplace/places where I work to use more digital technology for work planning/ care management

The data also show that younger employees aged 18-34 and those who were using more digital technology since the start of the COVID-19 pandemic were particularly likely to say they would like their employer to be willing to use more digital technology.

Generally, there was support in the qualitative discussions for digital technology to be more widely used in different care settings. As discussed above, participants noted that technology can improve efficiency, and it allows people with care and support needs to have more independence. It was also described as the ‘way forward’. As the size of the workforce decreases and demand increases there was seen to be an increasingly important role for digital technology in the social care sector.

“It’s the way forward and I think that we just need to get more au fait with it and be clear about when it’s helpful and when it’s not helpful and what it actually means and how we utilise it to inform and help our practice.” Nurse

However, there were still concerns about moving to a more digital way of working. The central concern was the need to balance digital working with the important role for face-to-face interaction and paper. Reassurances were needed around how these different ways of working will be balanced, and how staff will be supported to continue to provide high quality face-to-face care.

“I feel like I’m a tech worker, rather than a carer. I’m supposed to be looking after people with vascular dementia and I’m messing about with phones and tablets.” Care worker

There were also a number of attitudinal barriers. The anxiety and stress that digital working caused for some staff triggered concerns about digital technology being rolled out more widely. Managers also reflected that there was a widespread perception among their staff that using more technology will be

complicated, and this prevented them supporting the wider use of it. They also described a lack of willingness to accept change among some, or staff seeing the need to learn a new way of doing things as a hindrance. Linked to this, there was a preference among some participants to use paper as it was seen as quicker and more convenient.

Other barriers to supporting the roll out of digital more widely, mentioned in some of the interviews, were:

- **concerns about the impact on workforce numbers** – there were concerns from some that digital might replace care staff
- **safety concerns**, specifically the risk to the workforce when carrying expensive technology around unsafe locations
- **the time and investment required** in moving everything over to a digital system
- **concern that lack of skills, or openness to using technology among some of the workforce**, could impede wider rollout of digital technology in the sector.

"I do worry sometimes that there is a mismatch between that vision around the use of assistive technology and the workforce embracing it, because they're just trying to deal with the day-to-day stuff that's coming through the door." OT

5.4 Digital maturity of adult social care organisations

5.4.1 Organisation and security of digital information in the workplace

Most staff reported that digital systems were used for at least some of the storage and management of information in their workplace. A third (32%) of the adult social care workforce surveyed said they work in settings where information was stored and managed mainly digitally. One in nine (11%) said information was stored and managed using mainly paper-based systems, and over half (52%) said both digital and paper-based systems were used.

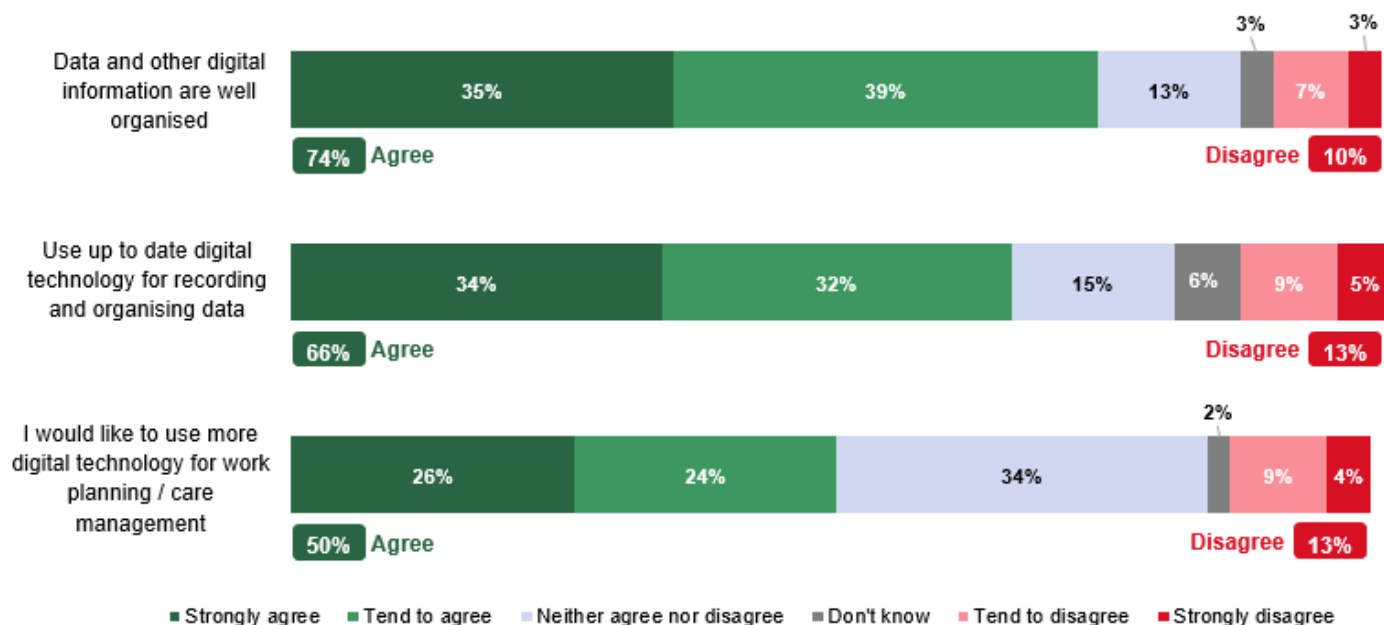
The extent to which digital versus paper-based systems were used varied by job role. Over eight in ten (86%) social workers (including principal social workers) work in settings where information was mainly stored/managed digitally, a much higher proportion than other job roles such as registered managers (22%), care workers (30%), and registered nurses (34%). Those working for local authorities (46%) or the NHS (59%) were also more likely to say they use mostly digital systems in their workplace.

Digital information was generally felt to be well organised but this varied by type of care setting. Three-quarters (74%) of all adult social care staff surveyed agreed that data and other digital information are well organised in their workplace.

Staff surveyed who knew who to speak to about sharing information securely and keeping information secure were more likely to agree that digital information was well organised (75%, compared with 59% who do not know who to speak to about these things).

Staff working in settings using mostly paper-based systems to manage information were more likely to disagree that data and other digital information was well organised (17% disagreed, compared with 10% of those in mainly digital settings).

Figure 5.9: Views of digital technology and the organisation of digital information at work



Base : All participants (2046)
 MONITOR_ATT. How much do you agree or disagree with the following statements?

5.4.2 Proactivity of employers in adopting new technologies

Views on how proactive employers were in looking for ways to use new technology varied by job role and the current use of digital in the organisation. Three in five (61%) of those surveyed who were employed by someone (i.e. not self-employed) agreed that their employer looks for ways to use new technology to improve care delivery.

Care workers were less likely than those in other job roles to agree that their employer looks for ways to use new technology to improve the delivery of care (57%, compared with 75% of registered nurses and 76% of administrative staff).

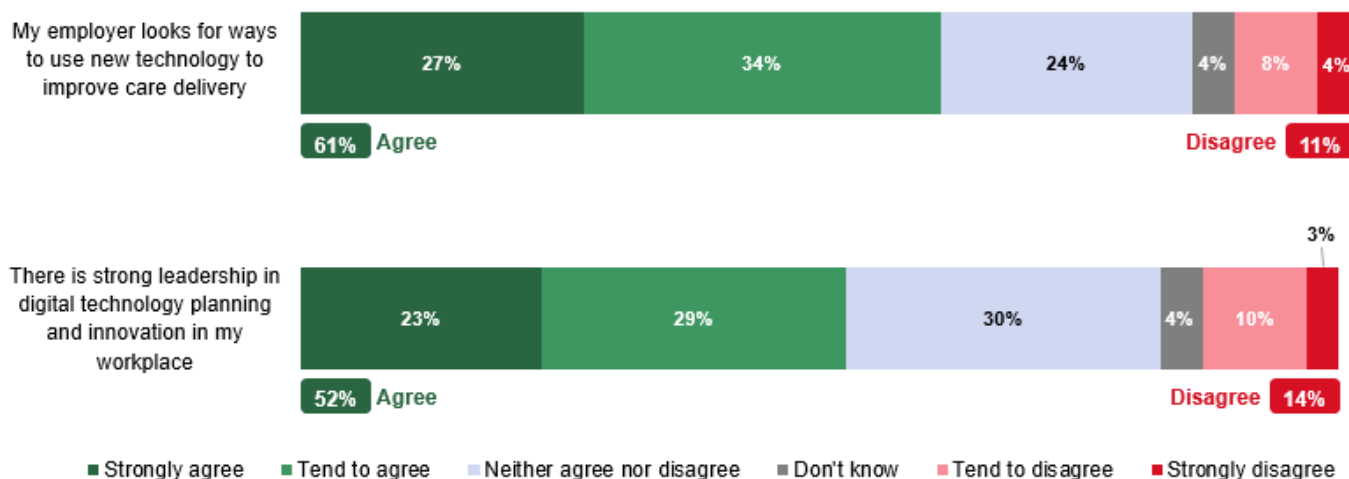
A quarter (25%) of staff working in settings with mainly paper-based systems disagreed that their employer looks for new ways to use technology. This compares with 7% of those who work in settings using mainly digital systems.

In the depth interviews and discussion groups, participants expressed varying experiences of employers’ attitudes to and use of digital technology. Some staff described complex digital systems using devices, software and apps designed for use in business management and care provision. Others explained that their workplaces were still predominantly paper-based. In some cases, this was due to a lack of resources to fund a shift to digital systems, while in others, staff reported that the paper-based system functioned well and that management saw no need to change it. Some staff described their workplace as being in a transitional phase, making a progressive shift from paper-based to digital systems over a period of time rather than all at once.

“The transition is really good; we’ve got all the training. [...] The company’s aim is to make sure that the whole workplace is digitalised by the end of the year – all the care homes that are under the company [...] everything will go digital. Our rota, schedule, medications, care plan.” Nurse

There were differences by professions. Social workers working in local authorities tended to describe their organisation as quite innovative, with examples of rolling out new systems, training people, and recruiting digital advisors. Care workers commonly described having very limited access to technology; for example, sharing a desktop computer or laptop between several staff. However, there were examples where care workers were working with up-to-date equipment and technology – for example, one setting that had provided all care workers with tablets – though these examples were less common.

Figure 5.10: Views of digital leadership in their organisation



Base : All participants who are employed by someone (2001)
 DIG_CULT. Please say whether you agree or disagree with the following statements about your employer. If you work in more than one setting, please think about the setting in which you spend more time or worked in most recently.

Care workers were less likely than the overall average to agree that there was strong leadership in digital technology planning, with less than half (49%) agreeing compared with 69% of registered managers. This difference may reflect who different roles look to for leadership or may reflect the extent to which the activities of organisational leaders in relation to digital technology was communicated to the workforce as a whole.

Those working in settings using mainly digital systems for organising data were more likely to agree that there was strong leadership around this than those working in mainly paper-based settings (65% compared with 24%). Those who broker or coordinate care as part of their role, those who had responsibility for digital skills development, and those who said there was greater use of technology in their workplace now than before the COVID-19 pandemic were also all more likely than the average to agree there was strong leadership in digital technology planning and innovation.⁷⁷

Those who had received digital skills training in the last year were also more likely to think that there was strong leadership in digital technology planning/innovation.⁷⁸

⁷⁷ 61%, 63%, 56% and 52% respectively.

⁷⁸ Over half (51%) of those who had received digital skills training in the last 12 months agreed there was strong leadership in digital technology planning and innovation, compared with 27% of those who had not received such training.

5.4.3 Information governance & data protection

Knowing who to speak to about information security

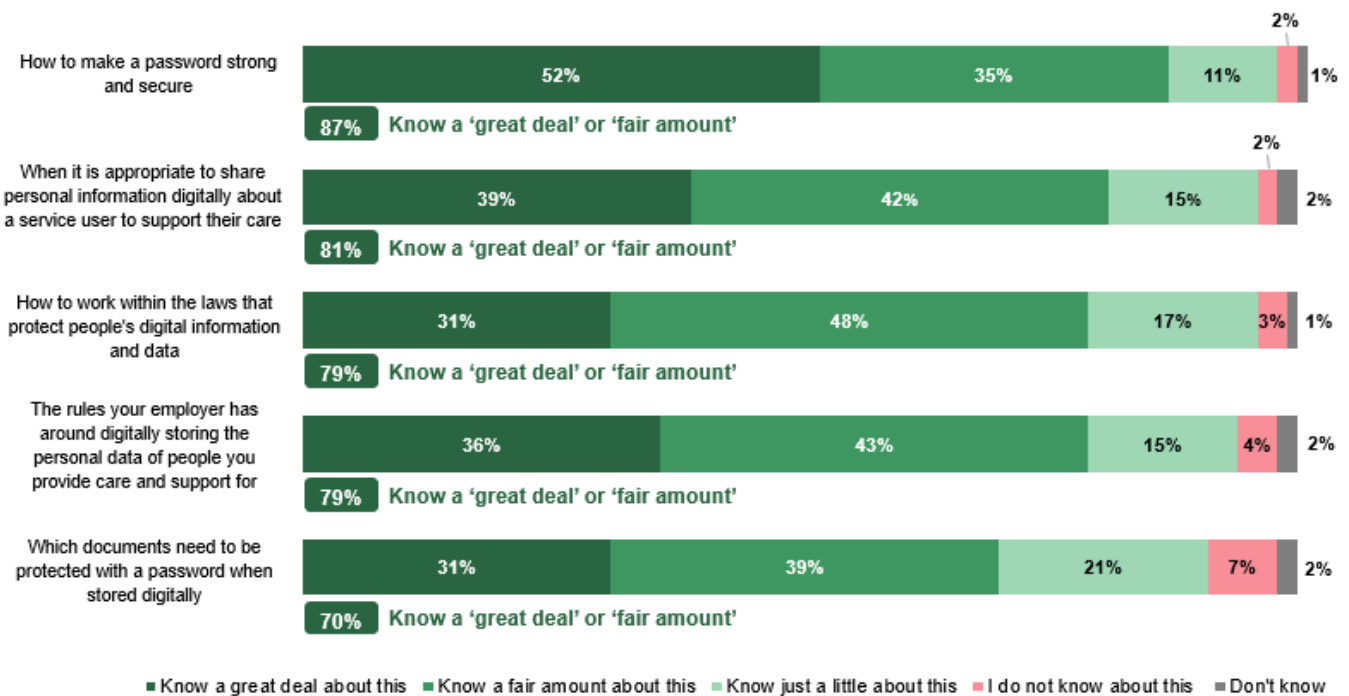
Staff were well informed about who to go to for support related to information security, and the most common support was from a manager. The majority (90%) of the adult social care workforce surveyed said that they knew who to speak to if they had questions about appropriately sharing information digitally and keeping it secure at work. One in twenty were not sure and the same proportion said this was not relevant to their job role (both 5%).

Of the majority of staff who knew who to speak to about appropriately sharing digital information and keeping it secure, most (85%) said they would speak to their manager about this. Just over a third (35%) would speak to the Data Protection Officer in their organisation and a quarter (24%) would speak to the information governance lead. Around a fifth (21%) would speak to another colleague, and 14% said they would speak to the Caldicott Guardian in their organisation.⁷⁹

Knowledge of processes around storing, using & sharing data securely

Staff surveyed reported that they were well informed about various processes to store, use and share data securely and most know something about these topics. However, some of those who reported knowing about this said they know ‘just a little’ about these topics, as outlined in Figure 5.11.

Figure 5.11: Knowledge of processes for storing, using and sharing data securely



Base: All participants with internet access (work or home related) (2044)
 DATKNOW: How much, if anything, would you say you know about each of the following?

It should be noted, that as described in [section 5.1.2](#) on views of skill levels of staff, nearly a third of registered managers and others with management responsibilities reported skills gaps in their

⁷⁹ It should be noted that not all organisations had a Data Protection Officer or Caldicott Guardian so the group who did not mention speaking to these includes those without such a role in their organisation as well as those who had this role in their organisation but did not say they would speak to them.

organisation in relation to information governance (e.g. 32% said there were gaps in complying with data protection legislation in the digital sphere).

Awareness of NHSX’s Information Governance portal

Awareness of the NHSX Information Governance portal was mixed and varied by age and job role. Almost two-fifths (39%) of the workforce surveyed said they were aware of the NHSX Information Governance portal, and the remaining three-fifths (61%) were not aware of this. Those who were aware of this portal most commonly said that though they were aware of it, they had not yet visited it because they had not needed to (18% said this). 8% regularly visit it and a similar proportion (9%) occasionally visited it to check for advice and guidance regarding information governance questions.

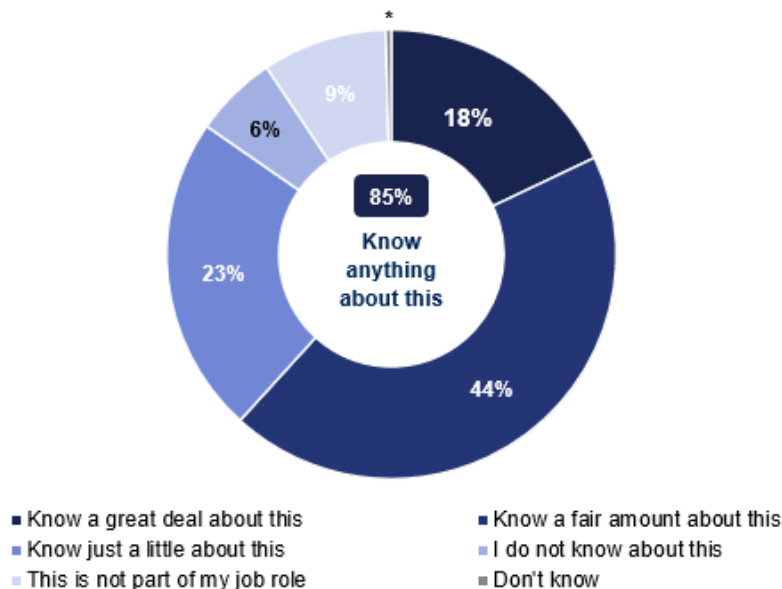
Those aged under 18-34 were more likely to be aware of the NHSX Information Governance portal and to visit it regularly. 44% of staff this age were aware of the portal and 12% visited it regularly (compared with 7% of those aged 35-54 visiting it regularly and 4% of those aged 55 and over).

Awareness of the NHSX portal also varied by job role and type of employer. Registered nurses and registered managers were more likely than staff in other roles to have some awareness of the portal (53% and 51% respectively), and those working in the NHS were also more likely to be aware of it (64%).

Registered managers’ knowledge of maintaining digital data protection processes

Self-reported knowledge about data protection processes among registered managers was widespread, though limited. Most registered managers surveyed (85%) said they knew at least a little about how to set up and maintain adequate digital data protection processes in their workplace.

Figure 5.12: Knowledge of adequate digital data protection processes at work among registered managers



*Base: All participants who are Registered Managers (580)
 DATKNOW_RM. How much, if anything, would you say you know about how to set up and maintain adequate digital data protection processes in your workplace/places where you work?*

Registered managers with responsibility for digital skills development were more likely to know something about this (87%, compared with 74% of registered managers without this responsibility).

There were high levels of awareness of information security, data protection and safeguarding requirements across the qualitative discussions. Staff were conscious of the need to keep data safe, and to protect people with care and support needs, seeing this as integral to the job and the sector in general. All participants in the qualitative discussions had received training in data protection requirements as part of their induction when joining their organisation, and commonly reported being required to undergo refresher training on an annual basis. Care providers generally expressed confidence that the necessary policies and procedures were in place at their organisation and were able to give details of these when asked. More junior members of staff were clear on the need to report any data security or safeguarding concerns to a senior colleague or manager.

“We all have to have GDPR training... so that we understand about data protection, that we understand about people's information being kept secure. [...] Most staff nowadays have to go through GDPR training.” Nurse

The most common data protection procedures in place described in the discussions included:

- password-protection of documents and devices
- encryption of sensitive documents
- using secure NHSmail
- using virtual private networks (VPNs) networks to access work servers remotely
- rules around workforce use of personal mobile phones while working
- recording permission to collect and share personal information, including photographs.

“Everything we go on has got separate passwords and then we've got the VPN to get onto the system. Basically, everything is password-protected.” Social worker

Though qualitative participants were generally confident in the data protection procedures in place at their workplace, there were some concerns raised about rules not being fully complied with. A common concern was around using personal devices at work – for example to share information about a client with a GP, or to take photos of a person and their home for a report. These staff were aware that this was not secure but had no other means of gathering or disseminating this necessary data. Staff were getting around this issue by deleting images after use.

5.5 Access to digital technology at home and at work

5.5.1 Internet access and use

Internet access outside work

Almost all of the ASC workforce surveyed had some access to the internet outside of work, either at home or via a mobile phone. In the survey, among the 99% with access to the internet, most had access to the internet 'all of the time' (89%), and 10% had access 'some of the time'.⁸⁰

Registered managers were the group most likely to have access to the internet all the time (96%). A third (33%) of agency staff⁸¹ said they had access to the internet outside of work only 'some of the time', the highest proportion of any employee group.

Likewise, in the depth interviews and discussion groups, participants commonly reported having access to the internet outside of work. In some cases, this was solely via a mobile device (using mobile data) rather than a broadband connection. However, participants also reported knowing of colleagues who had no access to the internet at home. For example, care providers reported that some of their staff (commonly care workers) did not have a Wi-Fi connection or smartphone at home.

Those who accessed the internet at home tended to use it for the following tasks:

- interacting with social media, messaging (for example, using WhatsApp), and sending and receiving emails
- streaming entertainment on a television or other device
- facilitating home-schooling during the pandemic
- working from home.

Internet access at work

The vast majority of survey participants also had at least some access to the internet in the places they work. Among the 96% with access to the internet at work, nearly three-quarters (72%) had internet access at work 'all of the time' and nearly a quarter (23%) had internet access at work 'some of the time'.

All of those who manage other staff (100%) had at least some access to the internet in the places they work, compared with 94% of non-managerial staff. Care workers were more likely than those in other job roles *not* to have internet access at all in the places they do their job (5%) and were more likely than other job roles to have internet access only 'some of the time' (25%).

Those working in homecare settings were more likely to say they do *not* have any internet access at work (8%, compared with 4% overall). Those working in settings that use 'mainly paper-based systems'

⁸⁰ The fact that over three-quarters (77%) of survey participants completed the survey online rather than by telephone could mean these findings were an overestimate of the proportion with internet access compared with the workforce at large – this possible limitation is discussed in the 'Conclusions' chapter of this report ([here](#)). Those completing by telephone were mainly registered managers who also reported good access to the internet.

⁸¹ Agency staff were those who reported they were employed by an agency. They worked in a variety of settings including care homes and homecare.

were also more likely to say they had no internet access at work (14%, compared with 3% of those working in settings with ‘mainly digital based systems’).

However, across the depth interviews and discussion groups, there was variation in the extent to which participants use the internet at work. Staff in the depth interviews reported using the internet at work for around a fifth of their work time (among care workers) and up to as much as 90% of work time among OTs and registered managers of care providers. There were some notable differences across the professions in the qualitative discussions. For example:

- **Nurses, OTs, social workers and care providers** reported that they consistently use the internet at work for tasks such as record-keeping, facilitating meetings with colleagues, and ordering equipment for people with care and support needs. OTs, in particular, said they commonly used video calling platforms to enable remote home visits with clients in order to minimise unnecessary in-person meetings and the associated risk of transmitting COVID-19.
- **Care workers** were less likely to report that they accessed and used the internet at work, though there were exceptions where care workers were using phones, apps and laptops in their work, they commonly described using paper-based systems rather than devices that used the internet.

“Because they're not using e-care, [Care workers] don't really need to be getting on the internet; there's not a reason why they'd have to.” Nurse

- Care workers who did access the internet for work reported using it to assist people with care and support needs – for example, facilitating video calls to friends and family; using an audio assistant device; or helping a person with care and support needs to access entertainment using a smart TV. Care workers tended to use their own personal devices (usually mobile phones), personal data contracts, and personal email accounts to carry out these tasks as they were not provided by their employer. Some care workers reported having had to upgrade their mobile phones and/or data contracts, to improve their connectivity for work purposes.
- Some care workers reported using an app for record-keeping, instead of a paper-based system, using a mobile phone (either a work-issued device or a personal one).

Reasons for lack of internet access

Among those who did not have internet at work all of the time, the most common reasons for lack of access related to connectivity rather than availability of digital devices. Four in ten in the survey who did not have internet access ‘all the time’ at work said that internet access was not available in all parts of their workplace (39%) or that there was no mobile signal in their workplace(s) (39%). Other common reasons for lack of internet access at work were around difficulties connecting – there was no broadband connection in their workplace(s) (31%) or that there was no stable connection (29%). A less common reason given was that there was no access at all to a device that connects to the internet (5%). These findings contrast slightly with those in the care provider chapter of this report regarding connectivity; 99% of care providers in the care provider survey had access to the internet. However, internet connectivity could vary depending on factors such as job role and the building environment and the provider interviews were mainly with office-based managers and more senior staff.

Similarly, unreliable internet was a common problem reported across the qualitative discussions. Across the workforce, participants reported ‘black spots’ where internet access was unavailable. This was the case both within buildings where they were based (for example, care homes), and in different

areas of the community where they work. Unreliable internet access in residential care settings has caused some problems, for example:

- Participants talked about working in care homes where residents paid for internet access as part of their care packages, but it was often unreliable. In these scenarios, residents either went without internet; relied on staff using their work (or personal) devices to access the internet on their behalf; or had to source and fund their own 'booster packs' to improve the internet signal in their rooms.
- Staff who used digital technology for tasks such as record-keeping (either on mobile or fixed devices) reported instances of internet failure at work. In this situation, staff had to revert to paper-based systems, and update digital systems when they were back online. Participants mentioned worrying that data entered into a digital system could be lost to an internet outage.

Community-based staff also reported internet access difficulties. These issues were usually related to one of two factors: poor coverage from a mobile data service provider (sometimes in rural areas, but not exclusively); or lack of Wi-Fi in the homes of people with care and support needs. The provision of SIM cards to staff to use in digital devices had overcome this issue in some cases. Furthermore, some of the apps used by care professionals were usable without internet, and data could be entered while offline. However, where this was not possible, staff tended to revert to using pen and paper, which led to increased workload later as they had to duplicate work (enter their paper notes into the digital system at another time).

“They let us have a SIM card so when you're out and about you had internet, so you could order equipment there and then in the person's house; you could show them videos on YouTube – brilliant – but they took the SIM card away, I think because of money.” OT

Working from home

Most adult social care staff who had at least some internet access at home carried out work-related tasks using the internet at home. Nearly eight in ten (79%) used the internet for work tasks at home, a fifth (20%) never did so and the remaining 1% were unsure.

Social workers (including principal social workers) were most likely to use the internet to do work-related tasks from home (97%), followed by registered managers (90%). Those working in homecare settings (87%), other/multiple settings (85%) and housing with care (79%) were more likely to carry out work-related tasks using the internet at home, compared with 66% of those working in care homes.

Across the depth interviews and discussion groups, OTs, social workers and managers of care settings were likely to work from home at least part of the time. This had increased since the pandemic. In order to work from home, participants used their personal internet connection to access video calls, emails, and connect to databases and drives hosted by their employers' servers. Participants reported that in some cases, a lack of home internet had to be overcome at the staff member's expense, so that they could work from home during the pandemic.

“I know at least one occupational therapy assistant who didn't have the internet at home, because she'd only ever use her phone...She had to go to the expense of getting broadband fitted.” OT

Care workers generally reported in the qualitative discussions that they did not work from home, as this was not possible due to the nature of their roles. Some care workers mentioned that they occasionally sent work-related emails from home, using a personal email account (for example, to report

their working hours to their manager). Some care workers also mentioned that they were expected to complete training requiring a digital device outside of work hours, due to a lack of time and staff shortages while they were at work.

Frequency of accessing the internet

Those with any access to the internet used it frequently. Half (52%) accessed the internet in their role 'almost all the time' and the vast majority (96%) accessed it at least once a week. A quarter (26%) accessed the internet in their role 'several times a day', 8% 'once or twice a day' and 10% less than once a day.

Frequency of accessing the internet at work varied by role. The majority (86%) of social workers (including principal social workers), administrative staff (82%) and registered managers (76%) accessed the internet 'almost all the time' at work. This compared with 44% of care workers and 57% of registered nurses.

Linked to this, staff who did not provide direct care and support were more likely than those who did provide direct care and support to access the internet at work 'almost all the time' (82% compared with 45%). Those employed by a local authority were also more likely than those working for any other type of employer to access the internet 'almost all the time' as part of their job (66%).

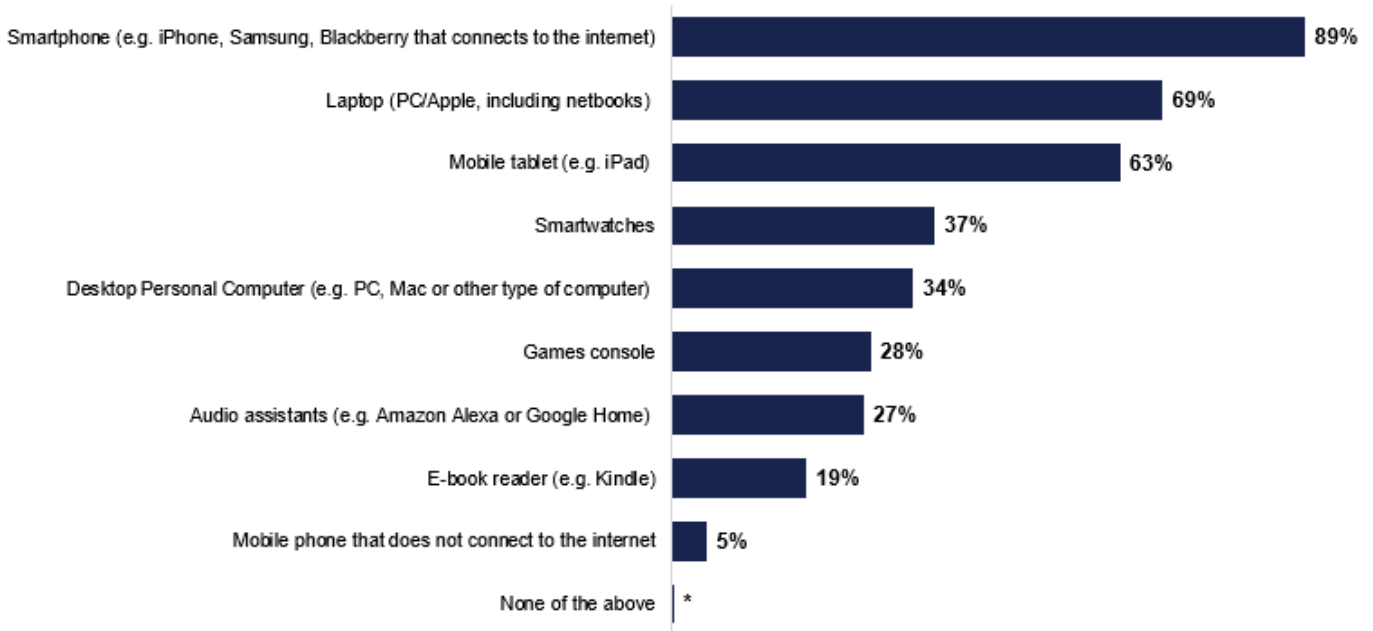
5.5.2 Access to digital devices

Use of digital devices at home

Access to digital devices at home was widespread. Almost nine in ten (89%) of the adult social care workforce surveyed owned or used a smartphone outside of work – the most commonly used digital device. Other commonly owned or used devices at home were laptops (69%) and tablets (63%).⁸²

⁸² As most (77%) participants surveyed took part in the online version of the survey (rather than by telephone), it is possible the survey was overestimating how widespread access to digital devices was compared with the overall adult social workforce.

Figure 5.13: Digital devices used outside of work by the adult social care workforce

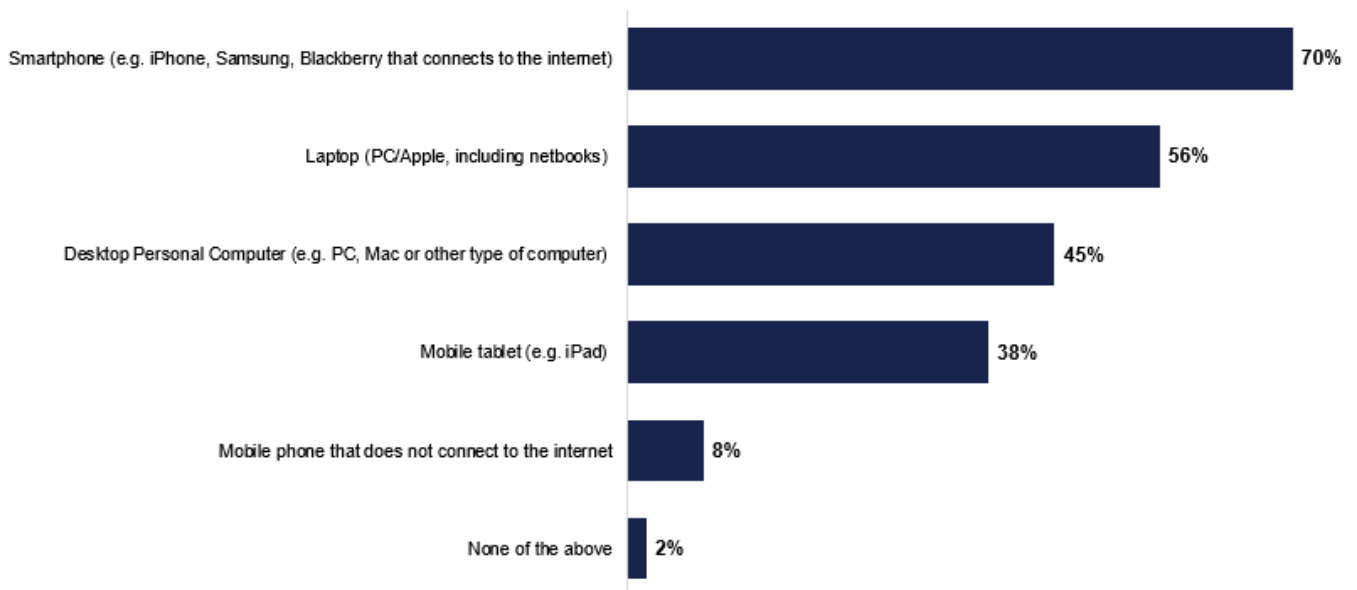


Base : All participants (2046)
 DIGUSE_HOME. Which, if any, of the following devices do you own or use outside of work?
 *Apart from 'None of the above'

The most frequently mentioned digital devices used at home in the qualitative interviews were mobile phones, laptops, tablets, desktop computers, and audio assistants. Some participants also used digital technology equipment for personal interests, such as making music, gaming, and streaming video entertainment. Participants using these specialised devices tended to be those who were more confident using technology.

Use of digital devices at work

Use of digital devices, particularly smartphones, was common among the adult social care workforce, though (as mentioned [later in this section](#)), a significant minority of participants were using their own personal digital devices at work rather than having a work device. Smartphones were the most commonly used digital device at work by adult social care staff who participated in the survey (70%).

Figure 5.14: Digital devices used in work by the adult social care workforce

Base : All participants (2046)

DIGUSE_WORK. Which, if any, of the following devices do you use in your job?

*Apart from 'None of the above'

Use of digital devices at work varied by job role, with care workers less likely than those in other job roles to use a smartphone, (68%), laptops (49%) or desktop computers (41%) at work. Registered managers and registered nurses were the most likely to use tablets at work.⁸³

Use of digital devices also varied by setting. Staff in care homes were more likely to use tablets (55%) and desktop computers (55%) compared with other settings. Those working in homecare were more likely to use smartphones (87%) and less likely to use desktop computers (31%) or laptops (42%). Care workers working in care home settings were more likely to own or use a mobile tablet outside of work than those in homecare (67% versus 56%), and the same is true for use of mobile tablets in their jobs (53% of care workers in care homes used them, compared with 21% of care workers in homecare settings). Care workers working in homecare, on the other hand, were more likely to use smartphones in their job (87%) compared with care workers in care home settings (52%).

There was extensive use of laptops and mobile phones for work reported in the qualitative discussions. Some types of assistive technology, particularly less advanced technology like monitors and alarms, were also mentioned.

There were some notable differences across the professions in the qualitative discussions:

- Care providers, social workers, OTs, and nurses all reported using laptops and mobile phones – and to a lesser extent tablets – regularly in their work.
- Social workers and OTs were also more likely to have knowledge about assistive technology, since a key part of their work involves identifying where this type of equipment may be of benefit, and supporting clients to use it.
- Care workers reported more of a mixture of digital and paper-based work, and paper-based record-keeping was still very common.

⁸³ 62% and 60%, compared with 38% of care workers and 38% overall.

- Other technology mentioned in the interviews and discussion groups, aside from laptops and mobile phones, included:
 - desktop computers for staff; in circumstances where these were limited, they were often in high demand for tasks such as mandatory online learning
 - communal computer room for residents in care homes
 - communal tablets for residents in care homes; participants reported that these devices tend to be in limited supply and high demand
 - outdated technology, such as fax machines, were still being used in some cases (though this was not widespread in the qualitative discussions).

Use of personal digital devices for work

Use of personal devices for work varied by job role and employer. Nearly two-fifths (39%) of those in the survey who used digital devices at work said they use their own device at work. It was more common for care workers and registered managers to say this (both 42%). Use of personal devices also varied by setting⁸⁴ and type of employer⁸⁵, with those working in homecare settings being more likely to use their own personal devices for work than those working in care homes. Among care workers specifically however, those working in care home settings were more likely than those working in homecare to use their own personal device (67% versus 43%).

Those who worked in care settings that use mainly paper systems (56%) or a mix of paper and digital (40%) were more likely than those working in settings that mainly use digital systems (32%) to use their own personal device.

In the qualitative discussions, personal mobile devices were being used for the following functions:

- **In their direct care roles:** For example, accessing videos, pictures and music for people in their care; researching medications, treatments and equipment. Participants reported that there was a greater need for this during the pandemic as people using care and support services had less contact with their friends and family who might normally do this for them.
- **To communicate with other organisations or parts of the health and care sector:** For example, using personal mobile phones to make video calls to GPs during periods when doctors were not visiting care homes (such as during the first wave of the pandemic). During these calls, the staff would report symptoms, seek advice and request prescription medication for collection off-site.
- **To access digital systems** – e.g., logging into care management software.
- OTs reported needing to use personal mobile phones to take photos of people in order **to assess and record** their physical needs. They also used their phones to order equipment online.

⁸⁴ Over half (56%) of those working in homecare settings used their own personal devices for work compared with 32% of those working in care homes.

⁸⁵ Agency staff (56%) and those working for care providers (46%) were also more likely than other groups to use their own personal devices. Those working for local authorities were the group least likely to use their own device for work (14%).

“If I go out to visit someone and I want to order some equipment, normally I would access that on the laptop when I got back to my home office. But on a mobile phone, I could be sat in my client's house saying, 'Right, we're going to get you that toilet frame... and that's the day it's coming'.” OT

There were some concerns raised in relation to data security and information governance when using personal internet networks, data or devices for work purposes. For example, participants noted that they were having to access sensitive information on devices they were not confident were secure (because they were personal devices). Concerns were also raised about using personal internet networks to access confidential information. They were also not sure how secure their personal devices were when carrying out work calls with doctors (for example), or storing information relating to a person with care and support needs.

“I've got teenage sons using our computer network, and god knows what they're doing. [...] The data that we deal with – the confidential information and the systems we have access to – I do feel like, 'Oh, I hope it's going to be alright.’” OT

5.6 Use of technology

This section explores how digital technologies were used by the workforce to communicate, support the delivery of care, and support business day-to-day management. Key findings are:

- **Digital communication was common**, and generally adult social care staff had the technology they needed to communicate digitally with colleagues.
- **A range of technology was used to deliver care** – particularly monitoring equipment with sensors. Younger participants were more likely to be using these types of technology. Over half regularly thought about how technology could support the people they care for. However, nearly 4 in 10 would like to look for ways to use new technology to improve care but don't know enough about technology and its potential uses, and more than half of care coordinators and brokers felt this.
- **Consumer technology was also being widely used** to deliver care or help those receiving care, particularly tablets, video calling platforms, and audio assistants. Again, younger people were more likely to report using these technologies.
- **A variety of digital systems were used** for the business and day-to-day management of care organisations – most commonly for accessing payslips, digital care records or planning, and monitoring work.

5.6.1 Using technology to communicate digitally

Generally adult social care staff had the technology they need to communicate digitally with colleagues as part of their job, but this varied by role and the digital maturity of the organisation.

Among adult social care staff surveyed 85% agreed they had the technology they need to communicate digitally with colleagues as part of their job. However, care workers were less likely than those in other job roles to agree they had the technology they need to communicate digitally in general.⁸⁶ Among care workers specifically, those working in homecare were more likely to agree they had the technology they needed to communicate digitally (86%) compared with care workers in care home settings (78%) or

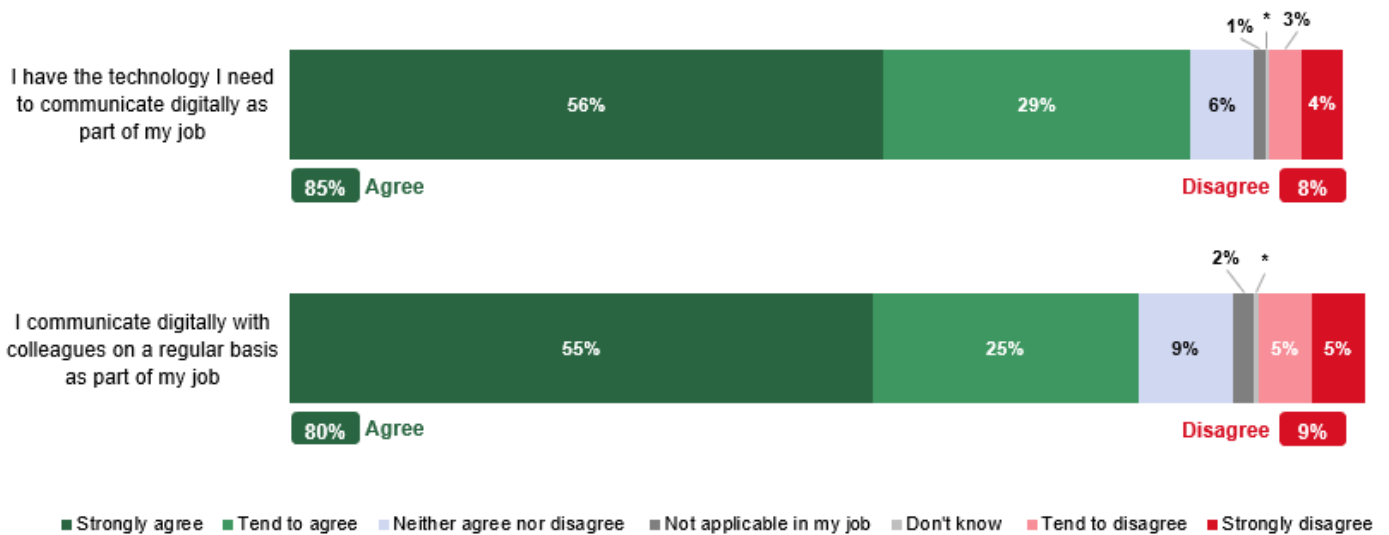
⁸⁶ 82% of care workers, compared with 93% of registered managers, 93% of social workers (including principal social workers) and 95% of administrative staff.

those working in both care homes and homecare settings (77%). The same is true for registered managers – 98% of registered managers working in homecare settings agreed, compared with 88% of registered managers in care home settings.

While one in nine (90%) adult social care staff working in settings that use mainly digital systems said they had the technology they need to communicate digitally, a much lower proportion (55%) of those working in settings with mainly paper-based systems said this. Staff surveyed who used more technology now than they did before the COVID-19 pandemic were also more likely to agree they had the technology they need to communicate digitally.⁸⁷

Digital communication with colleagues was common across the adult social care workforce. Eight in ten (80%) participants in the survey said they communicate digitally with colleagues on a regular basis, as part of their job.

Figure 5.15: Digital communication among the adult social care workforce



Base : All participants (2046)
COMMS_ATT. Please say how much to you agree or disagree with the following statements.

Around three-quarters (76%) of care workers communicated digitally with colleagues on a regular basis – a lower proportion than any other job role in the survey. This varied among care workers by setting, with care workers in homecare settings being more likely to say this compared with those in care home settings (84% compared with 67% respectively). The same finding was also true for registered managers, whereby those working in homecare settings were more likely to say they communicate digitally with colleagues on a regular basis compared with registered managers working in care home settings (97% compared with 89% respectively).

Those working in homecare settings (87%), housing with care (including extra care housing, supported living services and shared lives; 84%), or other/multiple types of settings (83%) were all more likely to say they communicate digitally with colleagues on a regular basis than those working in care home settings (69%).

⁸⁷ 89% who used more technology agreed, versus 80% where technology was used to the same extent as before the pandemic.

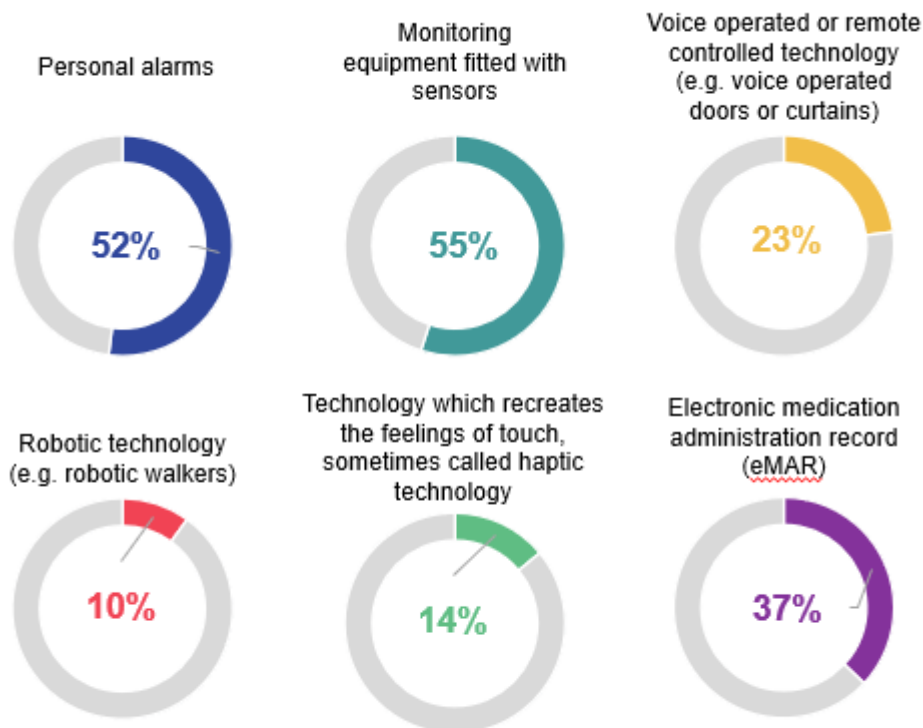
Those who manage others (87%), and those who do not provide direct care and support (93%) were both more likely than the workforce overall to say they communicate digitally on a regular basis with their colleagues. Nearly nine in ten (86%) of those working in settings with mainly digital based systems said they communicate regularly digitally, compared with 50% of those working in settings with paper-based systems.

5.6.2 Using technology to support the delivery of care

Use of technologies to deliver care

Frontline staff⁸⁸ in the survey who worked in a direct care role used a range of technologies in their role as shown in Figure 5.16.

Figure 5.16: Types of technology used to deliver care by frontline care staff



Base : All participants in direct care role (excluding Registered Managers) (949)
 CARETECH_USE. Do you use the following types of technology in your role working in adult social care?

Among those surveyed, younger groups of staff working in frontline care roles were more likely to use a range of technologies in their job than older groups of staff. For example:

- 60% of those aged under 18-34 used personal alarms in their job, compared with 48% of 35-54 year olds and 40% of those aged 55 and over.
- 59% of those aged under 18-34 use monitoring equipment fitted with sensors, compared with 44% of those aged 55 and over.

⁸⁸ Excluding registered managers

- 44% of those aged under 18-34 use an eMAR, compared with 34% of 35-54 year olds and 31% of those aged 55 and over.

Staff responding to technology fitted with sensors (either a personal alarms or monitoring equipment) typically said they knew what action to take in response. Among this group 69% said they know what action to take 'always' or 'most of the time'.

While younger groups of staff were more likely to use personal alarms and monitoring equipment fitted with sensors, there were no significant differences by age group in knowing how to respond to alerts from these technologies.

Participants in the qualitative discussions also referred to using technology for the provision of care. Care workers mentioned helping people with care and support needs to use technology for various tasks. Monitoring equipment with sensors, and personal alarms were seen as key technologies they need to use as part of their role and there were few concerns raised in terms of knowledge and confidence to use these. They also described using technology for communication, for example supporting people with care and support needs to use mobile phones or communication software (eye tracking technology for people who were non-verbal). Technology was also used for calming, therapy and de-escalation, for example, in sensory rooms.

“We've got the sensory room with lights, massaging chairs, music and a bubble machine. It's good, but it's unreliable [because the equipment often doesn't work]. I know it's because they're tight on money, but it just seems a shame that [residents] are missing out on something which does help them to relax.” Care worker

Knowledge and awareness of technologies to deliver care

Among those providing direct care and support there was awareness of the range of technologies available to meet the needs of people they care for. Two-thirds (69%) of the workforce surveyed who work in a role providing direct care and support to others said they had a good understanding of the range of technologies available to meet the needs of people they care for.

Knowledge of the range of technologies available differs by job role. Registered nurses and registered managers were most likely to agree they had a good understanding of what was available (84% of staff in both job roles this), compared with 67% of care workers. Social workers (including principal social workers) were most likely to *disagree* that they had a good understanding of the technologies available (17% of this group). In the qualitative interviews, social workers tended to consider their digital skills required for 'back office', business management functions such as working with Microsoft packages, communication software, digital care management systems rather than technology used in front line care. They expressed a desire to learn more about assistive technologies, which is the area the survey findings suggested there was a gap in.

Those responsible for managing other staff and for developing the digital skills of others were more likely to agree they had a good understanding of the range of technologies to meet people's care needs (75% for both groups).

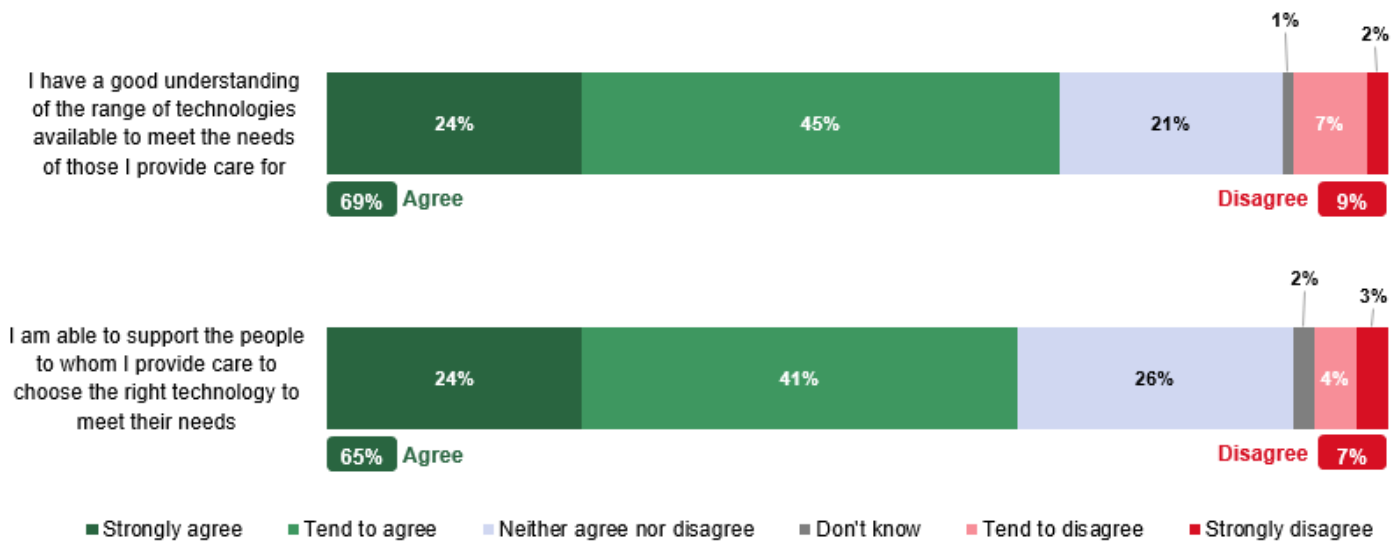
Participants in the qualitative interviews expressed a desire to learn more about what assistive technology is available. This was particularly among OTs, social workers, and care providers, especially those who had more confidence in the digital technology. These participants would like to

know what is available so they can advise their clients on them. There were some suggestions of an online resource or brochure with details (e.g., videos) on how to use these different technologies.

“Probably greater understanding of more of the devices that are actually out there, where we've got opportunities to do things differently...We're finding out about things more by the luck of the draw, by accident.” Principal OT

Staff surveyed who provided direct care felt able to support people to choose the technology to meet their needs. Two-thirds (65%) of staff surveyed working in a direct care role said they can support the people they care for to choose the right technology to meet their needs.

Figure 5.17: Understanding of the range of technologies available and the ability to support people to choose technology to meet their needs



Base : All participants in direct care role (1341)
CARE_ATT. Please say how much you agree or disagree with the following statements.

Registered nurses were more likely than those in other job roles to agree they can support the people they care for to choose the right technology for their needs (82% of nurses agree they can do this, compared with 64% of care workers and 60% of social workers).

Staff who supported the use of digital systems to manage information at work (72%) were more likely than the overall average (65%) to agree they can support those they care for to choose the right technology, as were managers (71%) and those with responsibility for digital skills development (70%).

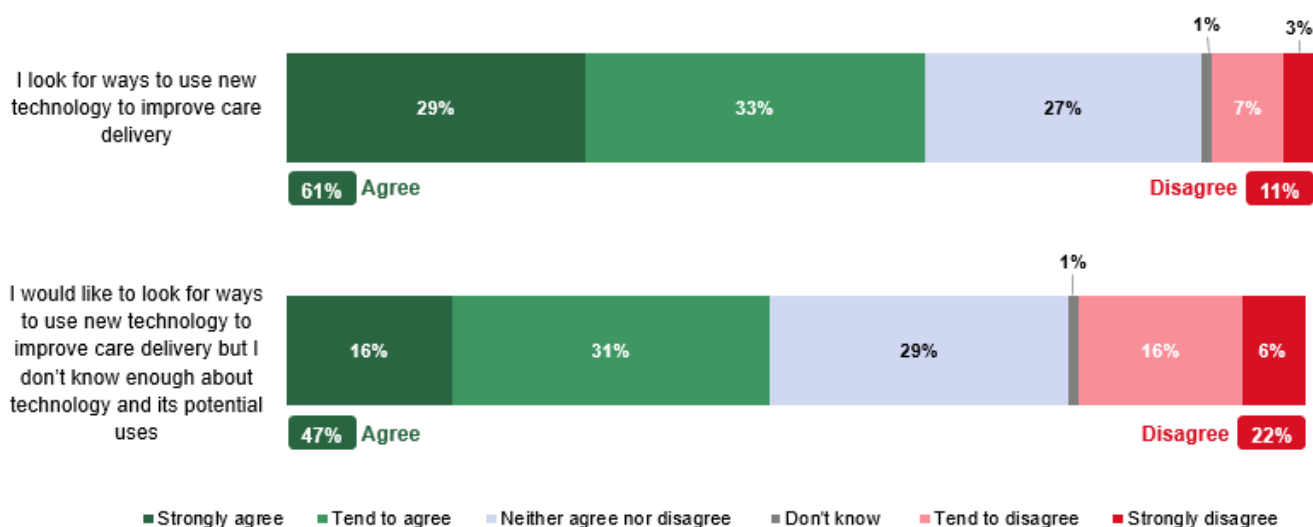
Over half of those involved in direct care delivery consider the use of technology for supporting the people they care for. Around six in ten (57%) of staff with a direct care-giving role agreed that they regularly think about how technology could support those they care for.

The data also suggests that those with a care coordinator or broker role, those who had received digital training in the last 12 months, and those using more technology as a result of the COVID-19 pandemic were more likely to agree that they regularly consider how technology could support those in their care.

Most managers look for ways to use new technology to improve care, but some felt they lack knowledge in this area. Members of the workforce holding a managerial position and/or responsible for digital skills development were asked about their proactivity around improving care using digital

technology. Three in five of those surveyed (61%) looked for ways to use new technology to improve care and delivery.

Figure 5.18: Proactivity in digital care delivery among managers and those with responsibility for digital skills development



Base: All participants in a managerial role and/or those with responsibility for digital skills development (1361) LEAD_ATT. Please say how much you agree or disagree with the following statements.

Care coordinators or brokers were more likely to feel their lack of knowledge inhibits their ability to use technology to improve care than people in other roles. Among the managers and those responsible for digital skills development who were surveyed, those with a care coordinator or broker role were more likely than other managers to say they would like to improve care using new technology but felt that they don't know enough about technology and its potential uses (53% versus 39%).

The data also suggests that among those in managerial positions and/or responsible for digital skills development, men and those whose workplaces had increased the use of technology since the start of the COVID-19 pandemic were more likely to look for ways to use new technology to improve care.

Among registered managers specifically, those who were already using mainly digital systems, those whose employers had a strategy for digital skills development and those who funded training in digital skills in the past 12 months were more likely to seek ways to use new technology for improving care delivery.

In the qualitative discussions, OTs and, to a lesser extent, social workers commonly reported using and feeling knowledgeable about assistive technology. These two roles require staff to recognise where technology could assist people with care and support needs. OTs and social workers reported attending online training sessions to keep up to date with developments in digital technology available. They also discussed using the internet (in particular, Google-searching) to research and source available technology and were more likely to feel confident to ask their management to supply that technology. This was seen as a key part of their jobs – for example, recognising where technology could assist people with care and support needs, and recommending, prescribing, ordering or installing those technologies. These professionals referred to a range of technologies, for example:

- smart home devices, such as motion sensors and automatic lights

- devices used to help determine when people with care and support needs were at risk and may need greater support (for example, devices that monitor peoples' activity and flag alerts about behaviour, such as checking how long someone has been out of the house for)
- interactive safety devices (for example, pre-recorded audio that checks in with a user if they were behaving unusually, like leaving the house after dark; or devices that provide access to the correct medicine for that day or time)
- wearable alarms and fall detectors, that can raise an alarm in the case of a fall.

Although in the qualitative discussions social workers described being knowledgeable about these types of technology, in the survey they reported [lower confidence on average using some aspects of consumer and care technology](#). Where lack of confidence exists, participants described trying to work through technologies independently so that they could build up their own confidence.

“I'll go and fit stuff like motion detectors, door alarms, bed occupancy sensors; set up CCTV and stuff like that, occasionally. [I don't feel confident doing that, but] I have a strategy: I get the equipment delivered and I do a dry run at home, so I can inspire some confidence in the service user, rather than bumbling through.” OT

5.6.3 Using widely available consumer technologies

Technologies that are widely available to everyone were sometimes used to deliver care or to help those receiving care to stay independent.

Among frontline staff surveyed – i.e., those in a direct care-providing role (rather than all staff), technology was widely used to help people receiving care and support with their care needs or to stay independent. The majority (76%) used mobile tablets or smartphones for this purpose. Three-fifths (62%) used video calling platforms, and nearly half (48%) used audio assistants. Just over two-fifths (41%) used health and wellbeing apps (e.g. for medication reminders, care plans or coordination, nutrition, exercise, life planning, reminiscence, or other brain training).

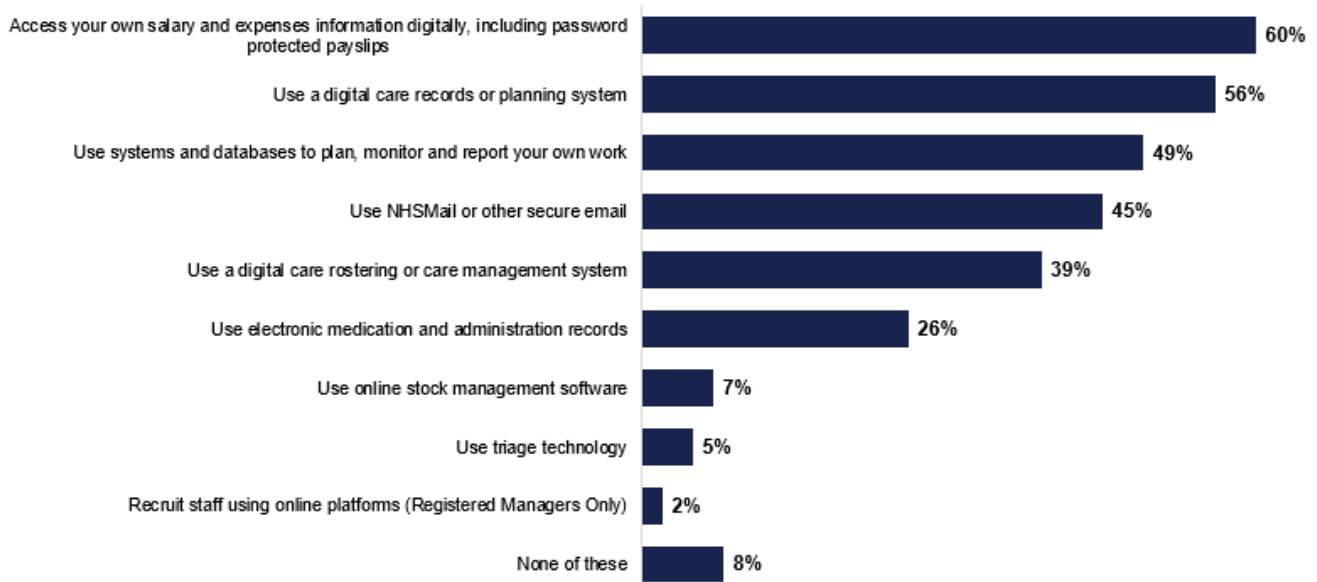
There were age differences in the frontline staff using these types of widely available technology to deliver care. Over four-fifths (84%) of those aged under 18-34 used tablets or smartphones, versus 77% of those aged 35-54 and 54% of those aged 55 and over. Over half (58%) of those aged 18-34 used audio assistants in their direct care role, versus 43% of those aged 35-54 and 37% of those aged 55 and over.

In the qualitative discussions, participants mentioned using tools recommended or prescribed to people with care and support. These include an app to help with anxiety. Other less common ways care workers supported people to use technology were around entertainment – for example, supporting people to use smart televisions, gaming consoles, and audio assistants. Audio assistants could also be used in care delivery to provide verbal reminders to users to take medicine or exercise.

5.6.4 Using technology in business systems and day-to-day management

Adult social care staff in the survey used a variety of digital systems for day-to-day management, as shown in Figure 5.19.

Figure 5.19: Use of digital systems among the adult social care workforce



Base : All participants with access to the internet in their role in ASC (2034)
DIGSYS_USE. Do you do any of the following as part of your job at the moment?

Those who had managerial responsibilities were more likely to use these digital systems. For example, 62% of managers used a digital care rostering/management system compared with 53% of non-managers, and a third (33%) of managers used an eMAR compared with 22% of non-managers.

A number of different digital systems were mentioned by participants in the depth interviews and discussion groups. These included:

- **Systems used in direct care provision** such as systems to record notes and manage care plans. This included a voice activation software used to record notes, a care management and planning software, and a software to record medication administration.
- **Systems for managing business needs** such as systems to log and record holiday, payslips, rotas. This included an accounting software, an online training hub, a software for rota management and holiday requests, a portal for personalised policy and procedure documents, and a software to manage risks, compliance, and analytics.
- **Care management software** such as systems to manage care commissioning, referrals and safeguarding.
- **Microsoft Office packages** and **video calling software** were also frequently mentioned.

“[Supplier] has a portal we log on to...It's great. Singing, dancing, and yes of course you pay extra for it, but actually, it's well worth the money... It cuts down on the amount of workload that we have.” Care provider

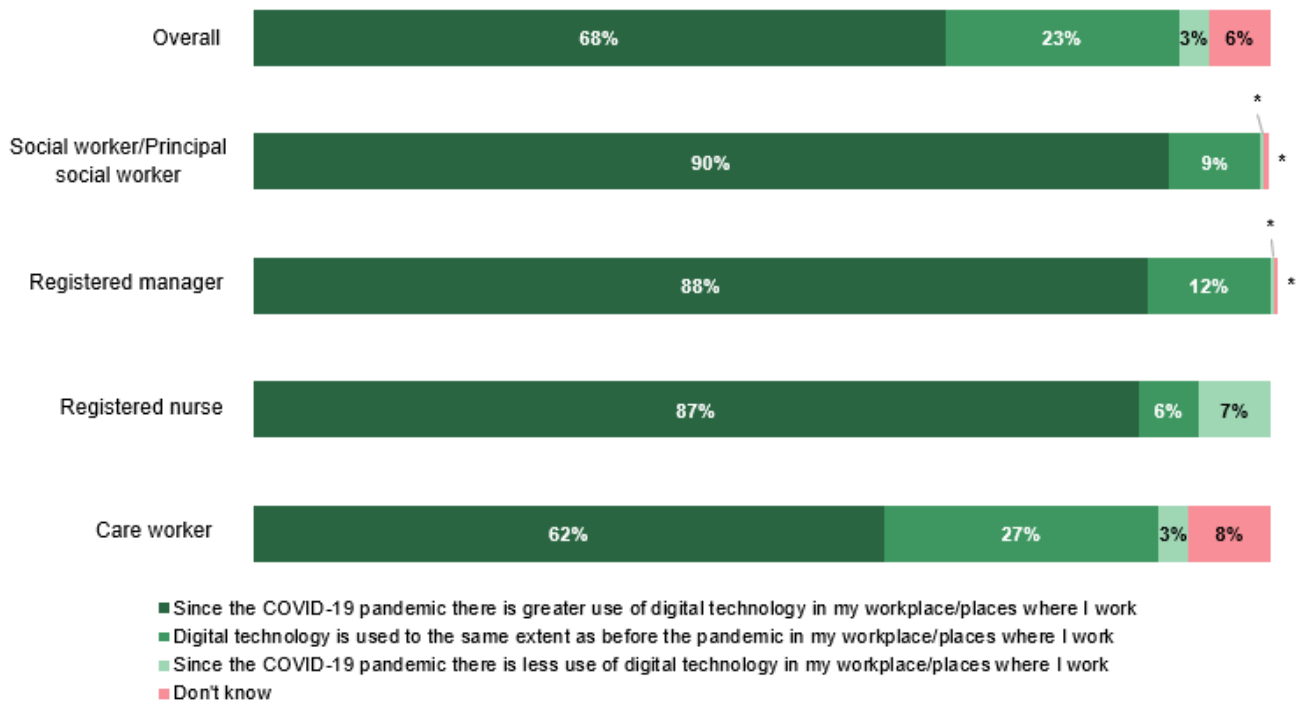
5.7 Impact of COVID-19 on use of technology and need for digital skills

5.7.1 Use of technology

The COVID-19 pandemic has had an impact on the use of technology in the workplaces of the adult social care workforce surveyed. Over two-thirds (68%) said there was now greater use of technology in their workplace.

The reported impact of COVID-19 on the use of technology varied by job role, with care workers being less likely than those in other roles to say there was more use of technology now.

Figure 5.20: Use of digital technology since the COVID-19 pandemic, overall and by job role



Base: All participants (2046)

DIG_COVID1. To what extent, if at all, has the COVID-19 pandemic changed the use of digital technology in your workplace/places where you work?

Staff who were supportive of using digital technology to store or manage information and those who know who to speak to about keeping digital information secure were also both more likely to say there was greater use of technology now than there was before the pandemic.⁸⁹

Participants in the qualitative discussions reported that COVID-19 had led to an increase in use of technology, and increased awareness of the need for digital skills in the ASC sector. Since the beginning of the pandemic, all participants in the qualitative discussions reported using digital technology more frequently. Even participants who did not regularly use technology at all in their workplace had to start using some form of technology in relation to their work. Some examples of this were more frequent

⁸⁹ 73% and 70% respectively.

use of emails; using messaging apps or video calls to communicate with colleagues; and working remotely.

Participants also generally reported that they had been using technology more in their day-to-day lives – for example, supporting children through home-schooling; keeping in touch with friends and family by video call; and shopping online. It was noted that this increase in use of digital technology was likely to have helped people to feel more confident using digital technology in general, and to be more willing to use it in the workplace if it was made available.

5.7.2 New technologies being used

Among those surveyed who reported a greater use of technology at work now than before the COVID-19 pandemic, the most common new technology used were video calling platforms. Over half (57%) said these video calling platforms had been introduced since the start of the pandemic. A wide range of other types of new technology were also being used to a lesser extent, including tablets (16%), online text-based communication platforms such as email (10%), online training or e-Learning (8%), laptops (7%), smartphones (7%) and electronic care management software or apps (5%).

Use of new video calling platforms was the most common new technology used by adult social care staff surveyed, but its use among those who reported greater use of technology now than before the pandemic varied by job role. Social workers (including principal social workers) were most likely to say they were using this technology now, with eight in ten (81%) saying this, compared with around half (51%) of care workers. Those who do not provide direct care and support to others were more likely than those who do provide direct care/support to say they were now using video calling platforms as a new form of technology since the pandemic (66% compared with 54%).

Older groups of staff were more likely to say that they were using video calling platforms now and were not doing so before the pandemic. Two-thirds (66%) of those aged 55 and over were using this technology since the pandemic but not before, compared with 61% of those aged 35-54 and 41% of those aged under 18-34.

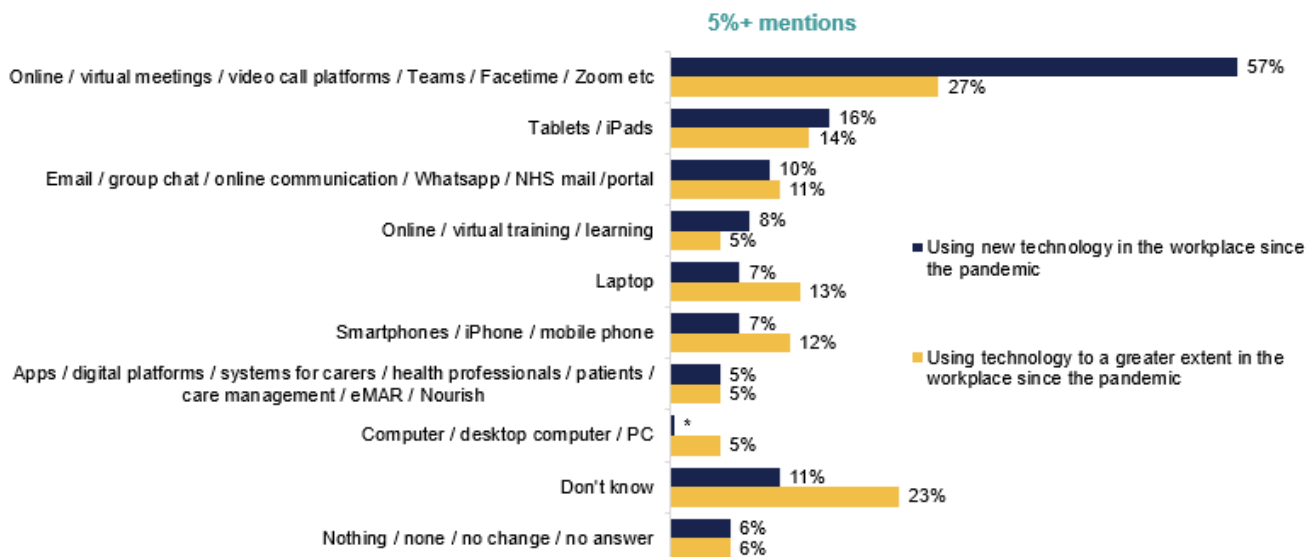
There were some cases mentioned in the depth interviews and discussion groups where participants were supplied with new technology by their employer to support remote working. This included laptops, tablets, mobile phones, headsets, keyboards and mice, and computer monitors. However, this had also caused some issues if staff were unfamiliar with the technology provided. Accessing support had also been more challenging during the pandemic because of less contact with colleagues.

“I have been given a work mobile phone. I’m supposed to take it on visits, but what I do at the moment is take my own mobile, because I know how to dial '999' on that and I don’t even know how to turn the work one on.” OT

5.7.3 Greater use of existing technologies

There were also cases where a technology was already being used before the COVID-19 pandemic but was being used to a greater extent now than it previously was.

Figure 5.21: New technologies used and greater use of existing technologies since the pandemic



Base : All participants with greater use of digital technology in workplace since the Covid-19 pandemic (1657)
 DIG_COVID2. What type(s) of new digital technology, if any, are now used in your workplace/places where you work?
 DIG_COVID3. What type(s) of existing digital technology, if any, has your workplace/ the places where you work made greater use of than before the COVID-19 pandemic?

Making greater use of existing technology now varied by job role, with nearly half (48%) of social workers (including principal social workers) saying they used existing video calling platforms more now than they did before the COVID-19 pandemic, compared with 22% of care workers, 23% of registered nurses, and 31% of registered managers. These differences may partly reflect the varying nature of the work that people in different roles do.

Those working in housing with care settings or other settings were more likely to say they used existing video calling platforms to a greater extent than before (38% and 31% respectively), and those working in care home settings were less likely to say this (20%).

5.7.4 Impact of COVID-19 on the need for digital skills

Staff taking part in the survey felt that the pandemic has had an impact on digital skills needs.

Two-thirds (65%) of the adult social care workforce surveyed said that the COVID-19 pandemic has increased their need for digital skills, while around one in nine (12%) disagreed that it has done so. Care workers were less likely to agree that the pandemic has increased their need for digital skills (60% said this) than other job roles (for example, 86% of registered nurses).

Staff were more likely to say the pandemic has increased their need for digital skills if they work in managerial roles that do not involve directly providing care and support. Three-quarters of managers (75%) and eight in ten (80%) of those who do not provide direct care said the pandemic has increased their need for digital skills, compared with three in five non-managerial staff (60%). These differences may in part relate to the different job roles and the greater need for communication technology among those in managerial roles, which was the main type of technology use increase seen in the pandemic.

In the depth interviews and discussion groups, participants reported having had to develop new skills since the pandemic began. This was mentioned particularly in relation to:

- using video calling apps and software which were used for meetings with colleagues
- virtual assessments (by OTs and social workers)
- facilitating GP appointments during lockdowns
- helping people with care and support needs to stay in touch with their loved ones.

However, participants had faced some challenges. For example, participants commonly reported having to teach themselves about technologies with which they were previously unfamiliar.

Navigating apps like MS Teams or Zoom was frequently given as an example of new software that participants had to get to grips with.

“I was on a course recently where they used breakout rooms as part of the training, so it wasn't training per se, but I learned how to get myself from one screen to the other. Most people struggled, but we got there eventually.” OT

The pandemic has also highlighted the digital skills that were lacking in the sector. For example, participants reported that employers had assumed staff had the necessary capabilities to use digital communication programmes (e.g., video calling software or messaging apps). However, this was not always the case and, as mentioned above, some staff had to teach themselves how to use new technology with little or no support. Care providers, in particular, noted that the pandemic had demonstrated to them gaps in their workforce's knowledge. Care providers also explained that, with the increasing use of technology in general across society, their expectations of incoming staff's technology skills were now higher than in the past. The findings from the survey also show that the increased use of digital technology during the pandemic may have widened gaps in digital skills, as office-based staff and registered professionals saw a greater increase in use than care workers.

6 Learning and development about digital skills

Chapter summary

This chapter outlines findings on the digital skills of the adult social care workforce. It includes findings from a combined online and telephone survey (sample of 2,046), 45 depth interviews and 18 discussion groups with the adult social care workforce including care workers, social workers, occupational therapists, administrative staff, and personal assistants.⁹⁰ The views of registered managers/assistant registered managers who participated in the survey and 23 care providers who participated in depth interviews are also included in this chapter.⁹¹ The survey data have been weighted to be as representative of the social care workforce as possible. The views of 7 L&D providers who took part in depth interviews are also included. The chapter contains three sections looking at developing digital skills in the sector.

The first section (**Developing digital skills and support provision**) explores motivation to develop digital skills and its role in career development. It also looks at experiences around seeking and providing support around digital technology.

- **There was a high interest in developing digital skills**, especially among older participants. Benefits of improving digital skills included: being able to work more efficiently, feeling more confident, and reducing anxiety and stress associated with digital technology.
- **Digital skills were linked to career progression**, and this was also a motivation for developing skills.
- **Participants largely felt well supported to use digital devices** – however there were instances where it was felt there was a lack of support available. This could make staff feel isolated and confused when it came to using digital technology.
- **Support available primarily centred on informal support** with a heavy reliance on asking colleagues or managers for help, though there were mentions of asking for help from IT departments.
- **Managers played an important role in supporting staff**. Common barriers to providing this support included a lack of access to the internet and digital devices among certain groups of staff, and a nervousness preventing people from wanting to use digital technology.

The next section (**Learning and development in the ASC sector**) explores findings on access to and experiences of learning and development (L&D) within the sector.

⁹⁰ More details about the profile of participants can be found in the appendix.

⁹¹ The registered managers included in the survey were mainly contacted through the CQC list of care settings. In addition, some registered managers heard about the survey via other channels and took part. The qualitative research with care providers involved interviews with registered managers as well as more senior figures in care providers such as managing director or head of business improvement. The methodology contains a breakdown of the samples. In this chapter registered managers were sometimes analysed separately. Where we refer to frontline staff with managerial responsibilities this is a different group from registered managers and includes staff who were not registered managers who had responsibility for managing others.

- **Half of workers' initial training** did not provide them with the digital skills they needed to carry out their job.
- **Most participants working on the frontline had accessed some form of digital skills L&D in the past year** – most commonly via e-resources and formal training provided internally. Managers also reported that training has largely been delivered via e-resources or from staff internally. Training has largely focused on data protection and developing knowledge around digital systems rather than confidence and broader skills development.
- **When exploring barriers to accessing digital skills training** the most common barrier cited was finding the time to participate in L&D. Managers also reported a reluctance to developing skills among some staff as a factor preventing them providing more training.
- **Issues with the L&D accessed** included a lack of time to digest and embed learning from L&D, and not enough focus on basic skills.
- **External training** accessed by managers for their staff has mainly been sourced from technology learning providers or specialist providers. External provision of training was generally rated as good, but four in ten were unsure about the quality of this training.
- **There was a desire for digital skills L&D to focus on basic skills to build confidence.** Participants would also like to receive L&D on developing their skills and confidence in using the software they regularly need in their roles; and developing knowledge around assistive technology.
- **Participants in the research would like L&D provided in a mix of formats.** It was suggested that targeted, group, face-to-face sessions (when possible) were needed to build basic skills, with online learning and on-the-job learning playing an important role in developing skills around specific tasks and embedding learning.

The final section (**Learning and development providers**) provides findings from interviews with digital skills L&D providers.

- The types of support offered by the three providers specialising in digital L&D ranged from targeted L&D for specific systems to broader L&D to develop digital skills of the workforce.
- There was an emphasis upon building up basic digital skills to improve overall digital awareness, and confidence within the workforce.
- Since the pandemic there has been a big shift to online L&D and demand for digital skills courses, however overall, there has been a reduction in take-up of L&D courses during this time.
- Reported barriers to wider take-up of L&D include a lack of capacity to take part in training, limited digital awareness among leaders, lack of access to digital devices among the workforce, and limited digital skills themselves being a barrier to accessing online L&D.

Suggestions for developing digital skills courses in future included: introducing mandatory accreditation for basic digital skills allowing them to be recognised and transferrable; aligning L&D with emerging digital technologies and approaches; focusing on the cultural aspects of digital skills development – e.g., organisational leadership, support for staff, and exploring ways of empowering staff.

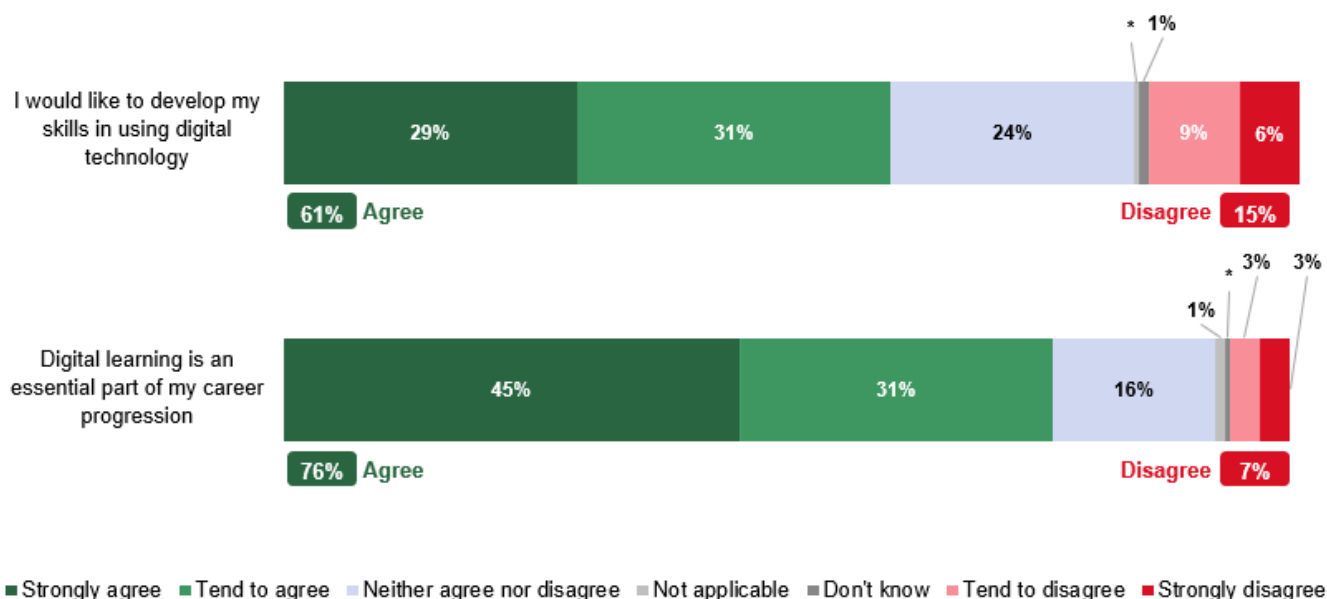
6.1 Developing digital skills and support provision

6.1.1 Attitudes to developing skills

Motivation to develop skills

Most people wanted to develop their digital skills and saw digital learning as essential for career progression. The survey included statements regarding digital skills acquisition. Three-quarters of those surveyed (76%) felt that digital learning was an essential part of their career progression and six in ten (61%) wanted to develop their skills in using digital technology.

Figure 6.1: Motivation among the adult social care workforce to develop digital skills



Base: All participants (2046)

TECH_ATT1. Please say how much you agree or disagree with the following statements about digital technology.

TECH_ATT2. Please say how much you agree or disagree with the following statements.

Linking digital learning and career progression was more likely among managers of frontline staff and care coordinators or brokers. Among those surveyed, eight in ten managers of frontline staff (82%) agreed that digital learning was an essential part of their career progression, as did 83% of those with a care coordinator or brokerage role.

The data also suggest that those whose workplaces made greater use of technology during the COVID-19 pandemic and those who received training in digital skills in the last 12 months were more likely to link digital learning with career progression. Further analysis of the registered managers data also shows that those whose organisations had a digital skills development strategy were more likely to link digital learning and career progression.

Older staff were more likely to want to develop their digital skills than those who were younger.

Looking specifically at registered managers as a group, there was a clear pattern showing the wish to develop digital skills increasing with age, from 52% among those aged 18-34, rising to 67% among those aged 35-54 and 66% for those aged 55 and over. This pattern was also found among those who were not registered managers with 68% of those aged 55 and over and 64% of those aged 45-54 wanting to improve their digital skills compared with 54% of those aged 18-34 years.

In the qualitative discussions there was a high level of interest in developing digital skills. The reasons for wanting to develop digital skills centred around:

- an acceptance that current skills were not optimal
- an awareness of the benefits of digital technology – for example supporting more efficient working
- a desire to feel more confident, and reduce the anxiety and frustration that was associated with working with unfamiliar technology
- an acknowledgement that it was the future – participants expected to be working more digitally so felt they needed to develop their skills.

“I would be more efficient, most definitely, I'd just be quicker, I'd be less stressed. Yes, I think there was an undoubted benefit to be had there.” Social worker

Another motivation for developing digital skills mentioned in the qualitative discussions, though less commonly, was the importance of digital skills for career development. For example, one care worker said that her current lack of digital skills prevented her from applying for more senior roles. A social worker noted that digital skills would be required in order to participate in the training required to become a social care professional and could be a barrier to getting a job. Managers also said they would be looking for evidence of digital skills in recruitment in future, particularly after the pandemic.

“There was an expectation when we recruit people now and we're making it explicit they come in with a certain level of digital capability.” Care provider

Those in managerial roles also wanted to develop their own skills so that they could better support staff to use digital technology.

“It would probably help run this place smoother. I could show staff more, help with more things with residents if they came in with them and weren't sure.” Care provider

The reasons for **not** being motivated to develop digital skills focused around the following themes:

- **Already having adequate skills;** this was the key reason participants gave. This included those in more senior positions who were more likely to be using digital in their day-to-day work, and felt they already had good skills. It also included those who did not see digital skills as central to their roles (e.g. if their role was primarily to provide care on the frontline, particularly care workers).
- **A resistance to digital technology being used more widely in the sector.** For example, these participants were not supportive of the move towards using more technology in general (primarily because it was seen to potentially impact the quality of face-to-face care). Other reasons included not wanting to spend more time than they were already getting to grips with digital systems or being put off by jargon associated with digital technology.
- **Being comfortable relying on ad-hoc support** from colleagues or technology specialists as needed.

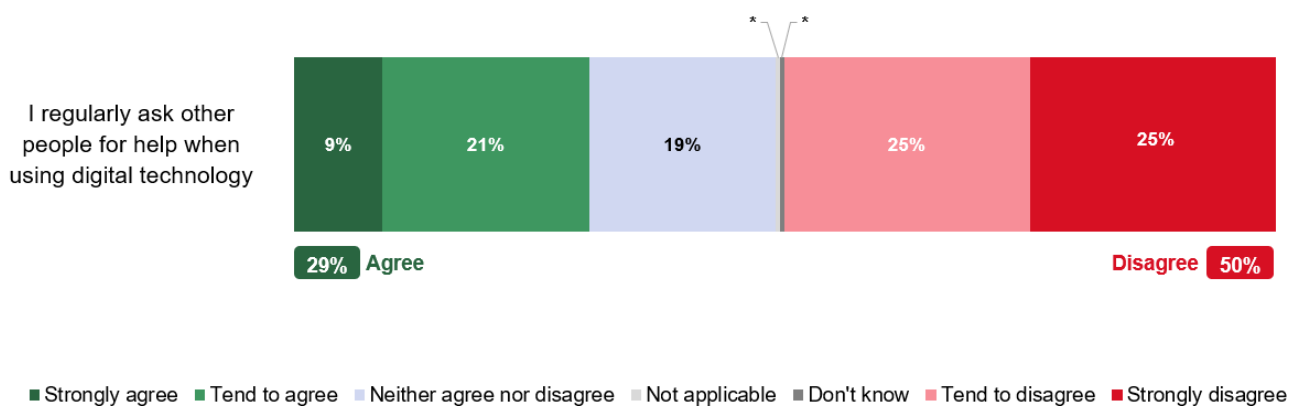
"I'm a bit resistant to becoming 100% technology, I think that would just lose the point of occupational therapy because, yes, it's a person-centred job, not a computer-faced job." OT

6.1.2 Supporting staff in digital skills development

Need for regular support

A minority of workers said they need regular help with digital technology. Among those surveyed, three in ten (29%) agreed that they regularly need to ask others for help when using digital technology.

Figure 6.2: Needing to ask for help when using digital technology



Base: All participants (2046)

TECH_ATT1. Please say how much you agree or disagree with the following statements about digital technology.

Those who had 'pre-novice' levels of digital confidence were more likely to agree that they regularly asked for help (51%) than those with 'intermediate' or 'secure' levels of confidence (23%).

Care coordinators or brokers and those responsible for digital skills development were more likely to seek help regularly when using digital technology. In the surveyed workforce, 35% of those with a role involving care coordination or brokering and 35% of those responsible for the digital skills development of staff agreed that they regularly need help from others when using digital technology. Registered managers were more likely than other groups to say they regularly ask for help (33% compared with 29% overall).

Younger workers and managers of frontline staff were less likely to say they need regular help with digital technology. Among the surveyed workforce, those aged 18-34 were more likely to *disagree* that they need regular help when using digital technology (65%) and this was also the case for managers of frontline staff (58% disagree versus 47% of non-managers).

The data for registered managers echoes that of the wider workforce by showing that, among those surveyed, older registered managers were more likely to regularly ask for help, as were those who had a care coordinator or brokerage role.

The qualitative discussions suggest that this may be due to confidence around asking for help. As discussed in [section 5.2.2](#) within the workforce skills chapter, some more senior and older participants felt they had more confidence to ask questions and seek help with digital technology.

Receiving support

Employees largely felt supported to use digital devices and technology. The survey explored the extent to which employed members of the workforce felt supported to use digital technology to do their jobs. Among those included in the survey who were directly employed by an organisation, seven in ten (73%) felt that their employer supports them to use digital devices and technology to carry out their job, although 19% were unsure⁹² and 8% disagreed.

Local authority employees tend to feel more supported in using digital technology at work.

Among employees included in the survey, 78% of those working for a local authority agreed that their employer supports them to use digital technology at work, compared with 70% of those working for a care provider and 61% of those working for the NHS.⁹³

The data also suggest that managers of frontline staff, care coordinators or brokers, those whose workplaces had made greater use of technology since the COVID-19 pandemic and those who had received training in digital skills in the past 12 months were more likely to feel supported by their employer.

Among the group of registered managers included in the survey, those whose organisation has a budget for digital skills development, a digital skills strategy and those who had funded digital skills training in the last 12 months were more likely to feel supported by their employer to use technology at work.

In the qualitative interviews, the types of support available to help with digital technology primarily focused on informal support. This involved a heavy reliance on colleagues (or typically one colleague) to answer queries as they came up. This was often a peer or a manager. Managers in particular were seen as integral to this: leading by example, showing people how to do things, and being on hand to answer queries. Managers themselves reported that the support they got to use digital technology also came from colleagues, specifically predecessors or where they existed, the head office (rather than having their own bespoke training).

Other types of support described in the discussions included:

- IT specialists such as IT departments people can call or log issues with online, or external technology providers that provide support for specific technology or software – this was largely described by people working in local authorities
- support when new systems were introduced or when they start a new job via one-off training
- members of staff dedicating time (e.g., a prescribed day) to go through care workers' questions – this was the case in a number of settings
- digital champions or buddies within the organisations.

“The council has...these different systems for support, and there's an email support for this...For me personally, having somebody in the office who's been there a long time, has used the systems...that's pretty much how I learn. If he left, I'd be snookered.” Social worker

⁹² 18% neither agreed nor disagreed and 1% said don't know.

⁹³ Excluding those working for 'other' employers (76%), agency employees (81%) and those with multiple employers (82%) where differences were not significant.

However, participants also felt there was a lack of support available to help them with digital tasks. For example, participants often felt they did not know who to go to when they had a problem with digital technology. They also described an assumption from their senior colleagues (i.e. management) that people already had the capabilities to use technology so support was not provided or felt too advanced. Linked to this, digital technology was heavily associated with the use of jargon, and ‘speaking a different language’ that meant participants often felt isolated and confused when trying to resolve issues – particularly with IT departments. These concerns were raised by participants in all types of settings – e.g., some people working in local authorities felt very well supported, others felt isolated and ill supported. However, care workers in particular felt that they were often left to work out how to use digital technology.

“You feel you don't know who to ask and then when you do ask people, because they might know what they're doing, they go too quick and then you're just left with this sort of feeling of inadequacy and feeling like a dinosaur.” Social worker

Providing support

Most managers reported supporting their staff to use digital technology. The survey also explored the extent to which managers and those responsible for digital skills development felt it was their role to support staff to use digital technology. Among managers and those responsible for digital skills development included in the survey, seven in ten (71%) agreed that it was their role to support staff in their workplace to use digital devices and technology to do their jobs.

Focussing on the registered managers data, those included in the survey were more likely to have said it was their role to support staff to use technology to do their jobs if their organisation had a budget for digital skills development (93%), a digital skills strategy (90%) and if they had funded digital skills training in the last 12 months (88%).

In the qualitative research those in managerial positions described common barriers they faced when trying to provide support to staff around digital technology. These included:

- **A lack of Wi-Fi and access to digital devices among staff**, making it difficult to provide support and training. There were also examples given where staff were expected to use their own personal devices to get around the lack of technology, or purchase devices to access digital systems. Managers felt that staff were understandably resistant to this.
- **Overcoming lack of confidence and apprehension to using technology.** Managers described an ‘insurmountable’ barrier or ‘blocks’ among parts of the workforce to carrying out certain tasks digitally, and therefore accepting support to work more digitally. This was felt to be caused by lack of confidence; poor experience of technology (e.g., technology malfunctioning); or attitudinal barriers (not seeing technology as beneficial for social care). It was also linked to misperceptions among some staff about what using digital technology will involve. One example given was staff saying they were slow at typing so could not use digital devices; the manager had to reassure them that typing speed was not an important factor in using all types of digital technology.
- **Remote working** (and training) during the pandemic had made it difficult to provide peer support and reassure people who lacked confidence around digital skills.
- **English and writing skills** were also noted as a barrier.

“I think where there is that gap, there’s also a block...for example, I have one lady and every single time she wants to put her annual leave in I have to do it for her, and I’ve shown her, I must have, you know, every year, I must have shown her dozens of times.” Care provider

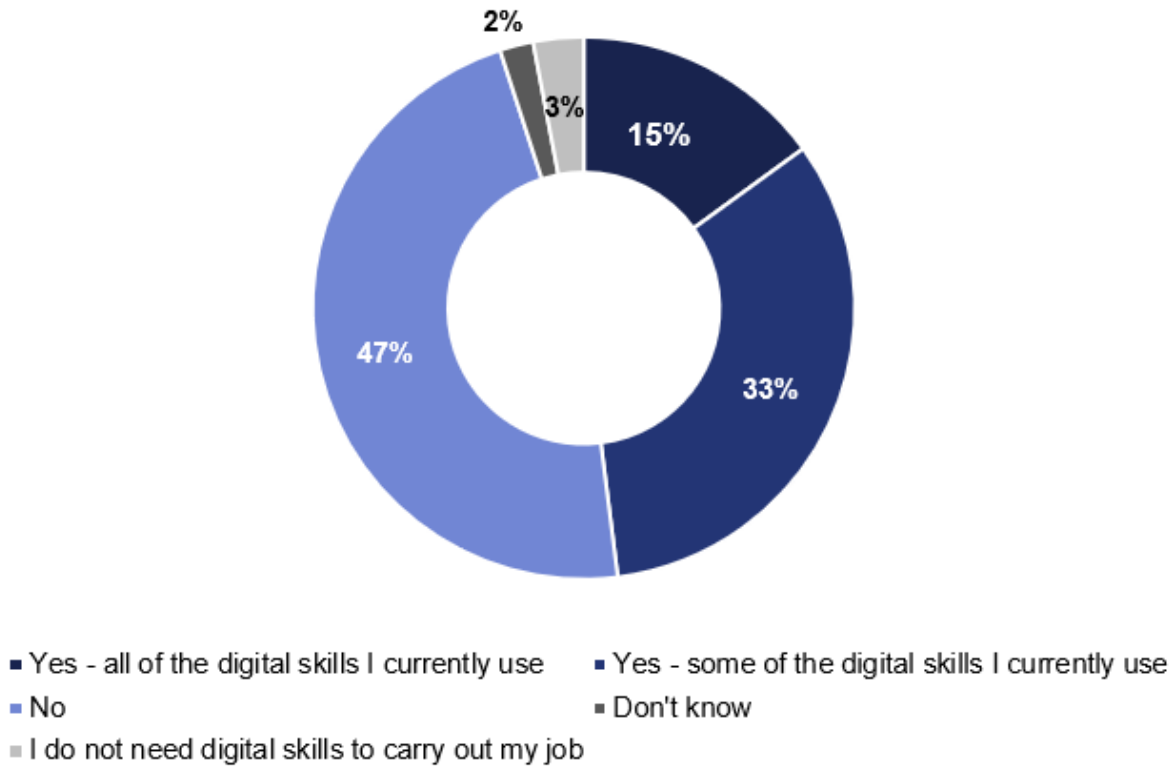
6.2 Digital skills Learning and Development in the sector

6.2.1 Access to L&D (for individual)

Initial training

Half of workers reported their initial training did not provide them with the digital skills they needed to carry out their job. The survey asked whether the job training provided when people started working in adult social care provided any of the digital skills currently needed in their job. Almost half (47%) did not receive training in any of the digital skills they currently needed to do their job.

Figure 6.3: Initial job training and provision of digital skills



Base: All participants (2046)

INIT_TRAIN. When you first started working in adult social care, did the initial job training you received provide you with any of the digital skills that you currently need to carry out your job?

Registered managers were more likely to say they did not receive the necessary digital skills training. Among the surveyed workforce, registered managers were significantly more likely than other job roles to say that they did *not* receive digital skills training needed for their current role during their initial training (69% versus 54% or less among other job roles⁹⁴). This may reflect the fact that registered managers were unlikely to have started their careers in this role and so their initial training would not have equipped them for this particular role.

⁹⁴ Excluding occupational therapists/principal occupational therapists, 36% (note: < 100 unweighted cases).

Among those who received some or all of the necessary training, the data suggest this was more likely among those with a care coordinator or broker role, male workers, those aged 18-34, those in their roles for less than 5 years, and those who received digital skills training in the last 12 months.

Digital L&D in the last year

The survey explored whether those with access to digital devices at home or at work had improved their digital skills in the previous year via a number of different delivery methods, whether this L&D development was internally or externally provided, and the focus of the learning. The focus of these questions was on the frontline workforce, excluding registered managers and those responsible for digital skills development.

A majority reported L&D activities to improve their digital skills in the past 12 months, with a focus on data protection, communication and managing/planning care. Overall, eight in ten of the surveyed frontline workforce (78%) reported L&D activities to improve their digital skills in at least one format over the past year, with the most commonly cited formats being e-resources (44%) and formal training (42%). Less formal training methods were also commonly reported. A third of those surveyed (32%) made use of self-directed training⁹⁵ 31% received training from a colleague, 14% used peer-to-peer networks and 7% mentioned Digital Champions.

During the last year, L&D has mainly consisted of internal provision. Around half of those who accessed L&D did so internally (46%), while 9% did so via an external provider. The remainder accessed training through a mix of internal and external provision (38%) or did not know how the training was provided (6%).

Data protection was the most common mentioned type of digital skills learning in the past year.

Among the frontline workforce who reported accessing digital skills learning in the previous year, six in ten (57%) received training or support around data protection, while 45% accessed training or support on digital communication with colleagues and 44% mentioned training in the use of digital systems to plan, manage or report on work. Three in ten mentioned (28%) training or support in digital care delivery and a similar proportion (27%) mentioned training or support in supporting care recipients to use digital technology to support their care needs.

The data suggest that those whose workplaces made greater use of digital technology during the COVID-19 pandemic were more likely than those whose use remained at the same level to have received training or support in how to communicate with colleagues, and in using technology to deliver care.

In the qualitative discussions, digital skills L&D was largely understood as accessing training.

Mentions in the qualitative discussions of digital skills L&D accessed in the last 12 months was minimal. Some put this down to the pressures of the pandemic meaning it had not been a focus. Participants were also largely not aware of any dedicated budgets for L&D. Those who were able to comment suggested that training on digital skills typically came from a broader training budget.

Care workers, in particular, described a lack of L&D generally in their roles, including around digital skills. They put this down to the focus of their role on frontline care, the pressure of their role (no time for L&D), but also the limited qualifications needed for the role so digital skills were not the focus.

⁹⁵ 3% mentioned the NHS Digital Academy.

“[There have been] no opportunities [for training or development]. No, really. It's been so understaffed. Just getting your day-to-day job done has been an accomplishment itself.”

Care worker

The types of digital skills L&D discussed in interviews were mostly limited to training focused on specific systems rather than developing skills and confidence. This focused around training at the start of a job on digital systems (induction), and training when a new system was put in place (e.g. mandatory training on local systems). Participants also described training on communication systems (such as MS Teams or Zoom) in response to remote working brought about by the pandemic.

“They have to do the information and governance [training], and this is when they would introduce them to these apps. So, telling them how to get access to their payslips, how to get onto ‘Grow’, but it would be a very quick whistle-stop tour of, this is how you get on it.” Nurse

Other types of L&D mentioned focused on self-directed learning. This involved individuals searching on the internet for how to do things when they had issues, for example looking at YouTube links. They also described on-the-job learning (i.e., learning from colleagues).

These types of L&D were all largely provided virtually through online meetings or webinars, and e-learning (primarily because of the pandemic). There was some mention of face-to-face training sessions. These were also chiefly provided internally or by software/system providers (in the case of training on digital systems). There were a few mentions of the Care Skills Academy, Skills for Care, and local authority provided learning to other parts of the sector.

There were other examples of L&D discussed – though these were not as common. These included:

- A homecare setting looking at introducing National Vocational Qualifications (NVQs) in Health and Social Care for staff via an online training platform.
- A local authority providing staff with access to bitesize weekly sessions on different digital technology or tasks.
- A local authority with a team of digital advisors: dedicated people who can share learning around digital technology, and to whom staff can go to if they need support.
- Peer groups and teams working to trouble-shoot issues. For example, one social worker had access to a dedicated care planning system champion who was the 'go to' person for the system they use.

Barriers to accessing training in past 12 months

The survey asked those with access to digital devices at home or at work what, if anything, had prevented them from accessing more L&D in digital skills in the previous year. Again, these questions were asked to the frontline workforce, excluding registered managers and those responsible for digital skills development.

A lack of time was one of the most commonly cited barriers to accessing digital skills L&D in the past year, as shown in Figure 6.4.

Figure 6.4: Barriers preventing access to more L&D on digital skills

Base : All participants with access to digital devices who are not responsible for digital skills development (864)
 TRAIN_BAR. What barriers, if any, have prevented you from accessing more learning and development on digital skills in the past 12 months?

A number of barriers to accessing more L&D were also described during the qualitative discussions:

- **Lack of dedicated time:** the key barrier was finding the time to participate in L&D. Some participants, particularly care workers, said they did not have time to do training at work and were encouraged or required to do this outside of working hours. This was a particular problem if they did not have reliable internet access at home or did not have access to work equipment due to limited availability.
- **Lack of knowledge of personal learning needs and what L&D was available.** Participants described a lack of understanding of what their own training needs were ('you don't know what you don't know'); they were also not aware of what L&D was available and how to access it.
- **Barriers associated with remote learning** were also noted, including a lack of digital technology to access remote learning, and lack of digital skills to access training delivered online (e.g., not knowing how to sign on to MS Teams). Working remotely was also seen as a barrier to learning from colleagues – with people working in a more isolated way due to the pandemic, with less peer support.
- Some care workers said they were simply not offered L&D so were not able to discuss the barriers to it more broadly.

Participants in the qualitative interviews described some common issues with the L&D they had received. **A key issue raised in the qualitative interviews was the lack of time to digest and embed learning following L&D.** For example, managers reflected that staff were often not using digital technology frequently enough to embed learning they had received from training. Participants also noted that often inductions on new systems or new technology happened before they were rolled out so there was a gap between the training and practising what has been taught.

“Things like the GPS trackers and things, I don’t think we have enough information given to us, and we don’t use them enough to actually embed that learning.” OT

Participants reported that digital skills training was currently offered at the wrong level, with not enough focus on basic skills. Managers and those confident with their digital skills noted that this can act as a barrier for staff to engage with and benefit from digital skills L&D. It was also reflected in discussions with those who were less confident; they said they could feel excluded from L&D because it felt aimed at a more advanced level than they felt comfortable with. There was therefore a desire to see more tailored L&D on offer. Linked to this, participants also reported that L&D can often feel generic and not tailored enough to specific roles or settings in social care.

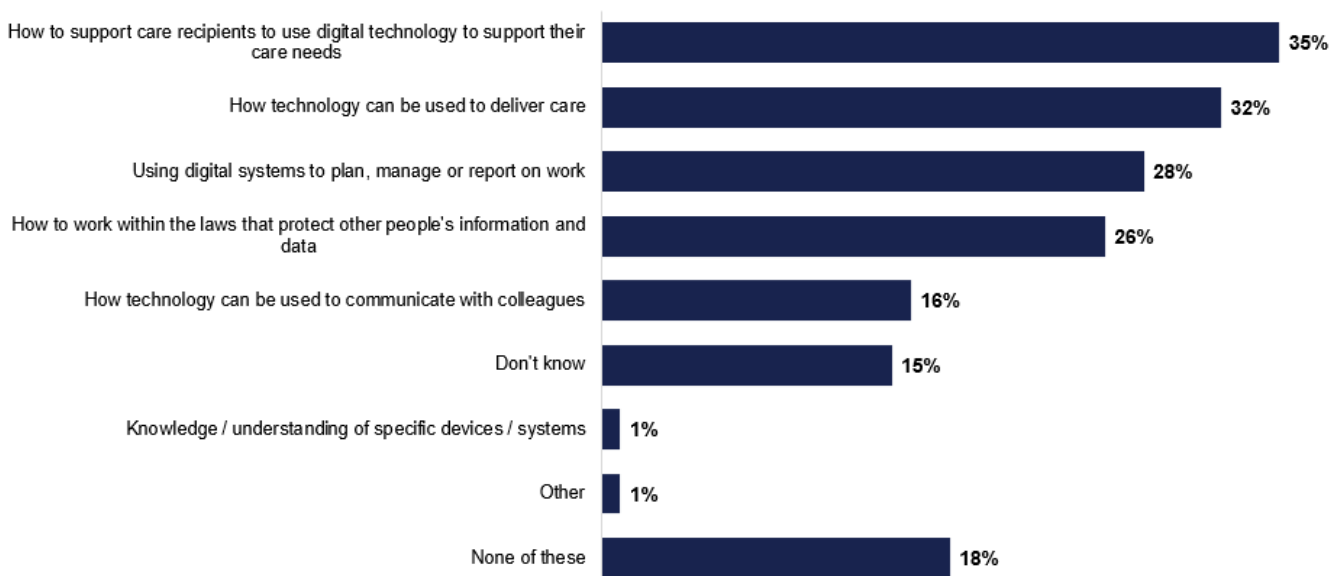
6.2.2 Training needs and preferences

Topics of training

The survey explored which digital skills those with access to digital devices would like to develop and their preferences for accessing training. The focus was on the frontline workforce, excluding registered managers and those responsible for digital skills development.

Two-thirds of the frontline workforce could identify at least one gap in their own digital skills. While a fifth of those surveyed (18%) felt they do not need to develop any digital skills, two-thirds (67%) could identify at least one area for development, while 15% didn’t know which of their digital skills need further development. The most commonly cited areas for development are shown in Figure 6.5.

Figure 6.5: Digital skills development needs of the frontline adult social care workforce



*Base : All participants with access to digital devices who are not responsible for digital skills development (864)
 TRAIN_MORE. Which, if any, of your digital skills are in greatest need of further development?*

The data also suggest that those whose workplaces made greater use of digital technology during the COVID-19 pandemic were more likely to want more training in supporting care recipients to use technology to support their care needs and training in using digital systems to plan, manage or report on work. Further, those who provide direct care and support were more likely to mention wanting training in the use of digital systems for planning/managing, or to not know what digital skills training they need in the future.

In the qualitative interviews, there was a desire for L&D around digital skills to:

- focus on basics skills to build confidence
- develop skills and confidence in using the software staff were using in their day-to-day roles
- develop knowledge around assistive technology.

There was a high demand for learning about the basics in order to build up the confidence of the workforce. This was discussed by both managers and non-managers (managers also wanted their staff to be offered learning on basic digital skills). ‘Basic’ skills included a range of things such as how to carry out a remote call or meeting; using touchscreens; faster typing and texting; using the internet and navigating websites (particularly on a work phone); organising folders on desktop; composing emails.

“Just the basic functions of how things work...if they haven't got an iPhone, getting used to touchscreen technology. And typing.” Nurse

Linked to this, there was also high demand for training on specific systems, notably developing skills to use the following:

- Microsoft software: specifically, how to work more efficiently in Word, Excel, and PowerPoint. Notably this was among managers and more ‘back office’ staff who wanted to learn how to put together presentations in PowerPoint, create their own formulae in Excel, or understand shortcuts in Word.
- Communication software such as Zoom and MS Teams – including setting up a meeting, sharing screens etc.
- Management and clinical software.

“What was missing was a really simple training package, how to navigate your way around Word, Outlook, using the equipment that your company has, because every organisation has different technology, different software packages.” Nurse

Managers, in particular, wanted to develop their analytical skills in Excel. They also wanted to become more adept at optimising the functionality of the systems they were using – including communication software and the management and clinical software.

“I could be better at how to use Excel; I don't use that to the best of its ability. I can use it to do what I need to but I know that there are so many different things that I could do with it and I don't use it to its full potential.” Nurse

Format of training

Participants in the research would like L&D provided in a mix of formats, and there was an important role for online/e-learning, on-the-job learning, and face-to-face training. Over half of the surveyed frontline workforce (56%) would like to use online/e-learning and 52% mention on-the-job training delivered by a colleague. Face-to-face training delivery was mentioned by 46%, while 35% would like to access online resources (e.g., articles, videos, professional forums, activities and tools accessible online).

In the qualitative interviews there was a preference for face-to-face group sessions rather than individual, remote, or self-directed learning, particularly for basic digital skills and initial training.

This was felt to be an effective way of learning as people could have dedicated time away from their busy roles and would not be distracted. Face-to-face learning was felt to be particularly suitable for introducing staff to digital technology and building their confidence. It would also allow people to learn in a supportive environment, where they would be able to interact with other people, share examples and experiences, and ask questions.

“I think we have to start with some face-to-face learning so we are there in the room with people building confidence and supporting them as a starting point. But I think as they become more confident, e-learning and assessments and webinars feel intuitively the right way to go.”

Care provider

The importance of ongoing learning was also emphasised. It was felt that any training needs to be supplemented with on-the-job learning, so that people would be able to practice what has been taught. There was also a desire to see refresher courses (for example, a re-cap of learning every six months). This was seen as important because digital technology was regularly changing, but also because staff may have lacked opportunities to embed learning following training, so learning was lost.

Participants in the qualitative discussions felt that online learning would work better once people had built confidence in basic skills. More detail on participant views of online learning was provided below.

Online L&D resources

Information provided by trusted adult social care sector organisations was most mentioned by those wishing to access online L&D. Those who stated a preference for accessing learning via online resources were asked whether a number of specified resources would be useful in developing their role or their interests in working digitally. Over eight in ten of those answering rated all five of the specified resources as useful, with the highest ratings awarded to information on websites provided by trusted adult social care sector organisations. A ranking of resources by their overall usefulness rating was as follows:

- information on websites provided by trusted adult social care sector organisations (95%)
- information on websites hosted by a government organisation in partnership with the adult social care sector (91%)
- practical guides and technical guidance available online (91%)
- a professional forum or network for staff to share best practice, ideas and technical knowledge about digital working (88%)
- webinars on digital technology and digital working (84%).

The data suggest that those who received digital skills training in the last 12 months were more likely than those who did not to rate all the specified online resources as useful, with the exception of practical guides and technical guidance.

In the qualitative interviews, online learning was also felt to be more suited to specific, bite-size, and bespoke learning around different tasks or specific technologies. This would also have the

benefit of providing a resource to staff to dip into as and when they need it – rather than having to recall information from a training session from months before. For example, refresher demonstrations of how to use technology would be helpful. Online learning was also seen as important to care workers who predominantly worked night shifts, as they were not able to access training sessions delivered during the daytime.

“They've got this new system for recording leave and payroll and all that kind of thing which we're having to access, and they've got a lot of little videos you can watch, and they're actually really useful. There are so many other areas that something like that could be useful for.”

Social worker

Some of the benefits of online resources included being able to undertake training at their own pace and having written information to refer back to. Participants commonly mentioned Care Skills Academy as an example of a good online resource, and also spoke favourably about it being endorsed by Skills for Care. It was important to participants across the professions that any online resources be delivered by a trusted ASC organisation that understands the needs of the care sector.

“We've got Care Skills Academy; they deliver all the online learning and development. Very good experience with them...it's one of the best I've come across, because it's interactive. It keeps you engaged, it keeps you interested, and it's user friendly. It's easy to get around, to understand, very supportive.” Care provider

However, there were also some drawbacks of online resources for developing digital skills raised across workforce groups. It was suggested that this mode of self-directed learning can be easy to disengage from making it harder to absorb the information being provided. For example, participants described checking emails while learning online, or not paying attention to the e-learning but just completing it ‘for the sake of it’. As described above, participants tended to prefer dedicated training sessions in a group format as information was easier to absorb and gave them the opportunity to ask questions of the trainer. This included remote learning via a video calling platforms.

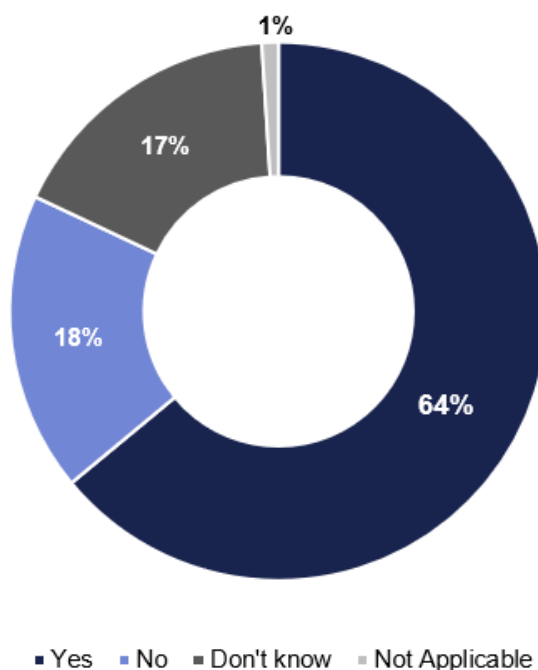
“I would rather have Zoom training, than watch a video, because if there's something in the video you don't understand, you've got to continue watching, then it's getting the answer to your question at the end. Whereas if it was Zoom, you could say, 'Excuse me, I don't understand that'.” Care worker

6.2.3 Strategic views of L&D

The survey included a series of questions directed at registered managers and those with responsibility for digital skills development to provide insight about how digital skills development was accessed and supplied to the adult social care workforce.

Current approach to digital skills development

Two-thirds of managers were aware of a digital skills development strategy in their organisation, but half did not know if there was a dedicated budget for digital skills development. Registered managers and those with responsibility for digital skills development were asked about their strategy and budget for digital skills development. Two-thirds of those surveyed (64%) reported that their organisation had an L&D plan or strategy for digital skills development of frontline staff. Among those who were aware of a digital skills strategy, 74% said this was updated at least once a year.

Figure 6.6: Existence of an L&D plan or strategy for development of digital skills

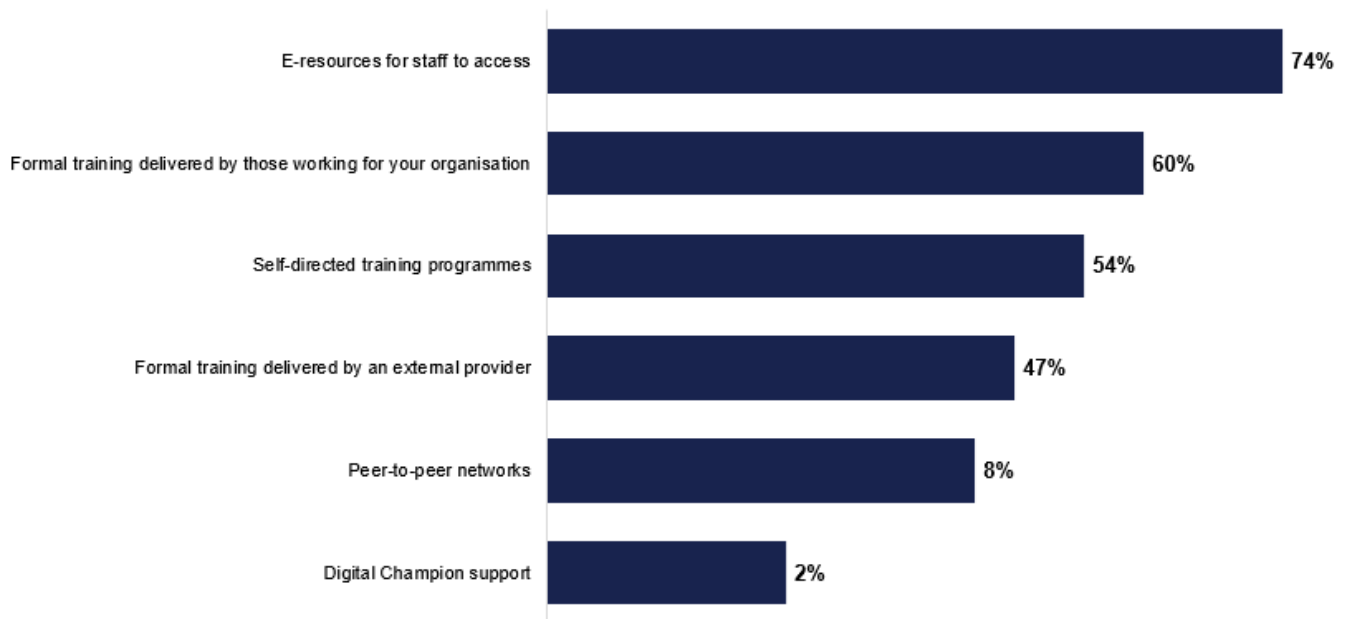
*Base : All participants who are Registered Managers / those with responsibility for digital skills development in the workplace (1159)
 TRAIN_RM1. Does your organisation have a learning and development plan or strategy in place to develop the digital skills of frontline staff?*

While three in ten managers (30%) said that there was a dedicated budget for the development of digital skills among frontline staff, 20% said there was no such budget and half (47%) did not know.

Among registered managers surveyed, those working in a single site organisation were more likely than those working in organisations with multiple sites to have said there was no digital skills development strategy (26% versus 37%) and no budget for digital skills development (62% versus 28% respectively).

Recent training has mainly been delivered via e-resources or by staff internal to the organisation.

The survey explored whether L&D in digital skills had been supplied in the past 12 months via different delivery methods for frontline staff in their organisation. Among the surveyed registered managers, the most commonly reported types of delivery were e-resources (74%) and formal training provided by staff working within their organisation (60%).

Figure 6.7: Delivery methods for L&D, among registered managers

Base : All participants who are Registered Managers (580)

TRAIN_RM4. Over the past 12 months has your organisation arranged or funded any of the following learning and development in digital skills for frontline staff?

External training has mainly been sourced from technology learning providers or specialist providers. Registered managers whose organisations had sourced formal training via an external provider were asked which organisation provided the training. The providers mentioned by over a fifth were technology learning providers/suppliers or a specialist organisation (38%), local authorities (26%), and national organisations (for example [Care Improvement Works](#), the National Care Forum, Digital Social Care) (21%).

Types of digital skills L&D accessed

Recent L&D for frontline staff has mainly focused on using digital systems for planning and care management and data protection. The survey explored the focus of digital skills training and development offered to frontline staff over the previous year. Among the managers surveyed, six in ten mentioned L&D on using digital systems to plan, manage or report on work (59%) and data protection (58%). Slightly smaller proportions mentioned L&D on using technology to communicate with colleagues (55%), using technology in care delivery (53%) and supporting care recipients to use digital technology to support their care needs (51%).

The qualitative research provides an example of where L&D was being comprehensively thought through (described in more detail below as well as in the 'What Matters Most App' case study). This was an example where the organisation has taken an incremental approach to rolling out technology and upskilling staff concurrently. It was felt that this would help with staff buy-in to the digitisation of their way of working by keeping them engaged, bringing them along with the changes, and providing continuous support. Assessment of digital skills throughout was also seen as an integral aspect of the approach to ensure L&D was developed around the needs of the workforce.

L&D and digital skills development: head of business improvement (charity):

This large national charity, that provides support to people with a learning disability, has been running a programme for three years to introduce digital technology to the organisation and upskill the workforce. They have taken a staggered approach to this.

Assessment of technological and skill need: The steps to do this included:

- Step one: working with local managers to understand the types of devices, how many devices, and types of digital/internet connectivity required
- Step two: assessing people's digital skills to understand levels of training required
- Step three: assessing skills throughout to monitor progress

Building up access to technology: transferring some aspects over to digital before building up to more widespread use of digital technology. The steps included:

- Step one: giving everyone an email address – providing them with a 'digital identity'
- Step two: moving payslips and absence systems to a digital system
- Step three: sending more communications out via digital channels.
- Step four: progressing to using an app and more advanced things such as using SharePoint

Introducing a programme of support: The support being put in place has included:

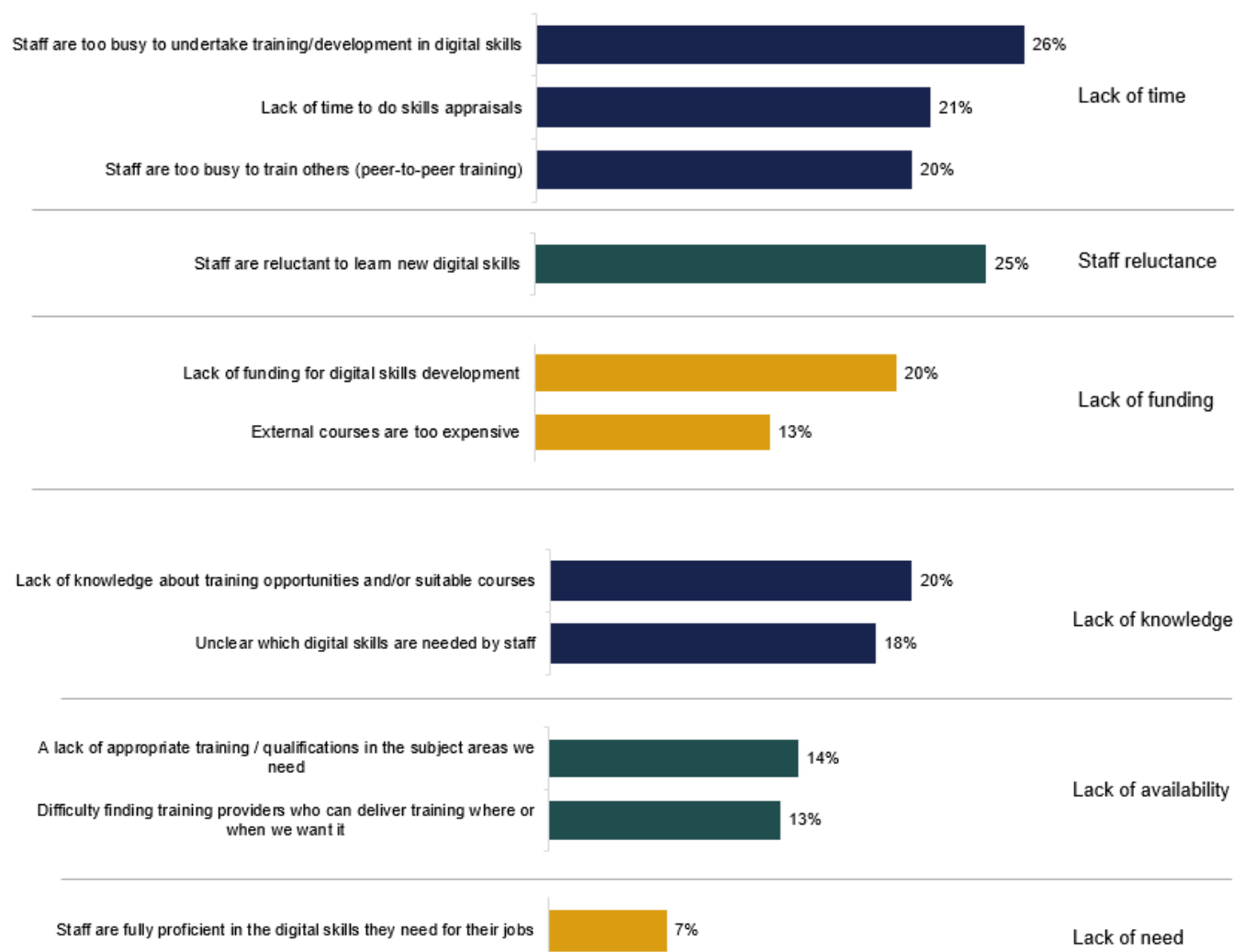
- a buddy system
- champions (10% of the workforce will be digital champions by the end of the programme).
- providing training to upskill on simple things such as how to use emails, how to log onto the payslip system.
- an online learning management system that has enabled them to build training modules for people/groups of staff.
- digital workshops for managers to attend so they can coach their staff.

“The way we've approached that is to run a number of pilots to understand what types of training needs and what sort of expectations and what sort of support people need, in order to come up with a deployment model to upskill people, in several different ways.” Business improvement manager

Barriers to provision of digital skills L&D

Lack of time and staff reluctance were barriers to the provision of digital skills training. The survey asked registered managers and those responsible for digital skills development whether there had been any barriers to the provision of more digital skills L&D for frontline staff during the previous 12 months. Among those surveyed, 17% experienced no barriers and seven in ten (71%) mentioned at least one barrier. Figure 6.22 summarises the findings and divides the barriers into six broad themes.

Figure 6.8: Barriers to providing more digital skills L&D to frontline staff over the last 12 months



Base : All participants with responsibility for digital skills development in the workplace (1159)
 TRAIN_RM7. What barriers, if any, have prevented you from providing more digital skills learning and development over the last 12 months for frontline staff?

Focusing on the registered managers’ survey data, those in organisations without a digital skills development strategy and/or budget were more likely to mention barriers covering a lack of funding, a lack of knowledge about training opportunities, being unclear which skills staff need to develop and a lack of appropriate training course for their needs. Conversely those whose organisation had a digital skills strategy and/or budget in place were more likely to say that there was no need for more training because their staff were proficient in the skills needed for their roles.

In the qualitative research, managers also talked about barriers including lack of resources to dedicate to digital learning, digital L&D being deprioritised for other things like infection control, and lack of funding to roll out new technology and teach people about it.

“If it got to the point that I had more than five people on training in one go and those five people did not have a laptop at home that they could use, then I would struggle to give them all laptops to use.” Care provider

Perceptions of external training

Half of registered managers rated the availability and quality of external supplied digital skills training as good but four in ten were unsure. Regardless of whether or not they had sourced external training provision in the previous year, registered managers and those responsible for digital skills development were asked about their perceptions of the availability and quality of externally supplied digital skills training for care staff. Among those surveyed, 51% rated the availability of such training as good, and 54% rated the quality as good. However, on each measure, four in ten were unsure⁹⁶ linking with the 20% of managers who cite a lack of knowledge about training opportunities as a barrier to facilitating greater skills development among frontline staff.

Analysis of the registered manager data shows that, among those surveyed, those who reported a strategy and/or a budget for digital skills development were more positive regarding both the availability and quality of externally sourced training.

In the qualitative interviews there was a suggestion from managers of having a repository of approved suppliers of digital skills training that would allow users to navigate by the type of provider and type of digital skills need.

“It would be good to have a list of 20 people who support adult and social care’s digital need. ‘These are the top four to meet your service’s need’.” Care provider

Managers also suggested in the qualitative interviews that they would also like to see more focus on communicating the purpose and importance of technology in general so that L&D could generate greater buy-in to digital technology among the workforce.

6.3 Learning and Development Providers

6.3.1 Types of organisations providing L&D

The findings in this section come from depth interviews with L&D providers. The 7 L&D providers taking part in the interviews can be broadly summarised as follows:

- **Commercial Interests:** 6 of the 7 L&D providers interviewed were commercial organisations and relied upon L&D activity to fund their business, whilst one provided a ‘free L&D offer’ as part of a financial institution’s community programme to support digital literacy.
- **Social Care Specialism:** All L&D providers interviewed commented that they had very good insights into the sector and considered themselves as specialists in supporting adult social care. Two of the L&D providers also offered support to other sectors. One L&D provider was established as a commercial arm of an independent care provider, and another was established by a former social worker.
- **Partnerships with technology suppliers:** 4 of the 7 L&D providers interviewed worked in partnerships with technology suppliers. This relationship included providing L&D to support staff with using specific software and digital systems, as well as the development of L&D courses and activity to support workforce digital skills, awareness, and confidence.
- **Core Staff Group and Bank Staff:** Most L&D providers interviewed operated with a relatively small team of permanent staff and a larger group of bank staff to deliver L&D as required. This was

⁹⁶ 26% rated availability as neither good nor poor, and 14% said don’t know. 23% rated the quality as neither good nor poor, and 17% said don’t know.

considered an important element in their business model, deploying resources in a more flexible way as demand fluctuated.

“Our business was set up by a former social worker who saw the gap in how council staff were trained to use (digital) systems.” L&D provider

In addition to the training offered by L&D providers, it should be noted that care providers and the workforce can often access [training from technology suppliers directly for using their products](#).

6.3.2 Types of L&D provided

Digital skills L&D was not the primary focus of the more generalist L&D providers. Four of the 7 L&D providers interviewed offered a broader suite of L&D offers relating to care and support activities. This was in direct response to demand from employers within the sector. Digital related L&D activities were seen as peripheral to these more dominant traditional adult social care L&D themes such as ‘lifting and handling’ or ‘administering medication’, for example.

“Employers are more interested in basic care training” L&D provider

Aside from those L&D providers offering specialist digital L&D, there was a limited range of courses available to support the workforce in their digital skills, awareness, and confidence in general. Only one national L&D provider interviewed offered specific courses on digital skills and on Technology Enabled Care (TEC). However, all L&D providers did make some references to the safe and effective use of digital technology, such as data protection, as an integral part of their L&D offers relating to delivering care and support.

However, there was specialist digital L&D available: 3 of the L&D providers interviewed offered more specialist digital related L&D. These L&D offers included targeted support for local authority staff using digital data systems, consultancy support to local authorities in supporting the workforce and promoting digital technology, and a broader L&D offer supporting the adult social care sector to adopt and use digital technology.

Some specific support was offered to independent care providers during the pandemic lockdowns in relation to digital skills, awareness, and confidence of the workforce. It was noted that there was significant interest and investment in the use of digital technology within the sector from organisations such as NHSX and LGA during this period – including associated L&D support offers such as using NHSmail, provided for example by Digital Social Care. However, one L&D provider commented that some care homes were issued with iPads during the lockdowns, but there was limited associated L&D support to enable staff to use these devices in the first instance.⁹⁷

There was an emphasis on developing basic digital skills. The importance of embedding basic digital literacy (described as a general familiarisation of digital) within the adult social care workforce as a starting point to improve overall digital skills, awareness, and confidence was emphasised. It was noted that the specific digital L&D courses available to the sector were being set at Level 1 & 2, that was geared around more basic levels of digital competency and confidence rather than Levels 3 or 4 that required a more applied approach. Further it was noted that some local authorities were working with their local communities to support digital inclusion that by default may include elements of the local adult social care workforce.

⁹⁷ Guidance on this is available here: <https://www.digitalsocialcare.co.uk/social-care-technology/nhsx-care-home-ipads/>

“People are using digital in their personal lives such as online shopping, and this can be applied in their working lives” L&D provider

As previously mentioned, L&D can also be offered by technology suppliers in addition to that offered by L&D providers. Please see [section 11.7.4](#) for details about what training technology suppliers are offering and intend to offer in future.

6.3.3 Format of L&D

Since the pandemic there has been a big shift to online L&D. All L&D providers commented that they had seen a significant shift to using online courses and materials. This was in response to the workforce now being more receptive to the use of communication technology, such as MS Teams, to work with others online as a consequence of having to work in a more agile (digital) way during the pandemic. Staff having to isolate and restrictions on face-to-face meetings has also caused this shift.

Several L&D providers noted that in order to maximise their impact of moving to more online L&D, they were also introducing a cascade approach. This involves targeting small groups of staff within care settings and supporting them to be (digital) champions to other staff not attending the online L&D courses.

“We have targeted three staff in each care home and can technically reach up to 17,000 staff.” L&D provider

L&D providers also noted that they were creatively using technology to deliver L&D beyond online communication platforms such as MS Teams and Zoom. This included the use of online videos and tutorials and the use of ‘screenshots’ to support staff in using digital systems for example.

6.3.4 Audiences and take up of L&D

Smaller care providers relied upon external L&D offers. L&D providers reported that generally it was the smaller and medium sized (SME) independent care providers that were accessing their courses and support material. Local authorities and some larger sized independent care providers tended to have their own in-house general L&D teams so had less need for externally provided L&D. L&D providers commented that this led to a degree of variability in terms of the types and take-up of L&D offers due to the more diverse nature and limited internal capacity of SME independent care providers to engage in L&D support offers.

L&D providers reported reductions in take-up of overall L&D courses over the pandemic. L&D providers generally reported a reduction in activity over the course of the pandemic - due to the impact of the lockdown restrictions and the consequent impact upon independent care providers’ capacity.

“We have seen our activity fall by up to 50% during COVID-19.” L&D provider

However, L&D providers working with local authorities commented that activity had remained relatively consistent with pre-pandemic levels. This was considered to be a reflection that this L&D activity was generally contained within Local Authority fixed budgets and plans.

In contrast to the picture of L&D demand overall, L&D providers reported that there was a strong demand for digital skills courses during the pandemic. For example, one L&D provider commented

that they had recently introduced a level 2 course on TEC⁹⁸ developed in partnership with TSA to run alongside a Level 2 course on digital skills. The focus of these courses was as follows:

- The TEC course focused upon introducing staff to how technology enabled care, such as monitors and alarms, can be used to help support improved health and wellbeing outcomes.
- The Digital Skills for Working in Care considered issues relating to protecting data, using devices and how to communicate effectively using different technologies.

However, the L&D provider commented that the volume of take up was greater for the digital skills course, doubling over 12 months to 9,400 per month, whereas take-up for the TEC course was significantly lower.

“The TEC has not changed over the pandemic, but the digital skills required has” L&D provider

6.3.5 Barriers to take-up of L&D

Key barriers to wider take-up of L&D were reported by L&D providers as follows:

- **Smaller care providers lacked capacity:** Smaller independent care providers make up the core audience for many of the L&D providers, but they can face challenges releasing staff for L&D courses due to workforce recruitment shortages impacting staffing capacity.
- **Digital awareness of leaders:** Several L&D providers noted that in some cases, owners of independent care providers had limited digital awareness themselves and therefore did not prioritise digital related L&D support for their staff. One L&D provider commented that improved understanding of the benefits of technology among care leaders may generate greater interest in enrolling staff onto L&D offers related to digital skills. Another L&D provider commented that they were actively working with leaders within adult social care to raise awareness about digital technology in a consultancy capacity and another L&D Provider commented that they were promoting the benefits of digital technology to leaders as part of their wider ‘community benefit’ based activity.

“We approached 1,200 care homes over the pandemic to offer support, but only 500 responded. This was due to managers not engaging (in digital).” L&D provider

- **Digital inclusion remains a concern:** All L&D providers recognised the issue of digital inclusion within the workforce, and across independent care providers upon the take up of L&D delivered online. Several commented that there were issues around connectivity, particularly across rural areas, and that groups of staff and some independent care providers lacked access to smart digital devices or software.
- **Supporting staff online with digital skills.** L&D providers commented that often they spend a considerable amount of time just supporting some of the workforce with low digital confidence to register for L&D online courses - such as entering personal details. This was considered a barrier to more staff enrolling on online L&D courses.

⁹⁸ Technology enabled care.

“There is a real paradox of trying to support staff with low digital skills through our online service.” L&D provider

- **Online L&D was very intensive:** a few L&D Providers commented that the switch to online courses (to include digital L&D offers) was having a potential detrimental impact upon take-up. L&D providers commented that most course modules require up to four hours study – a prolonged period of time with none of the ‘physical interaction’ with others normally available in a classroom setting.

7 People with care and support needs

Chapter summary

Findings in this chapter are based on 25 depth interviews with people with care and support needs. These interviews aimed to explore participants' general use and comfort with digital technology, their views and experiences of using technology designed to support care and independence, their perceptions of the digital skills of care workers and unpaid carers, and their views of how digital technology could be used in the future to support care and independence.

The sources of information and advice about care and support most commonly mentioned by participants were local authorities (LAs), charities, GPs and the NHS. Participants also frequently relied on family and friends to help them access information, for example by calling organisations or looking on the internet.

Ownership and use of digital consumer technology were common, with smartphones, computers, laptops, and tablets frequently mentioned. However, digital skills and confidence varied greatly: those who had been using technology for a long time, were using, or had used it for work purposes, felt they had good digital skills and were digitally confident. In contrast, other participants made limited use of consumer technology, were still learning how to use it, or only felt confident to use the functions they had learnt or been shown, usually by friends or family members.

A minority of participants had never used any consumer technology and as a result they did not know how to use them and were not digitally confident. They were primarily participants aged 80 and over.

Looking at digital care technology, personal alarms were most commonly used, either as a pendant or wristband. Of those who used personal alarms, participants reported two downsides: people had to remember to wear it, and some who needed a personal alarm thought the pendant version labelled them as vulnerable. Electronic reminders for medication, video cameras around the home or by the front door, and health and wellbeing apps were also mentioned. **In addition, consumer technology was frequently used for care and support purposes.**

With the exception of personal alarms, overall awareness of digital care technology was limited among participants, which acted as a barrier to uptake. Other barriers that limited the adoption and use of digital technology, whether consumer or care related, included not knowing how to use it, not being able to afford it, not knowing how they could benefit from it or not needing it, and not being interested in it.

Among those using technology the benefits included greater independence, safety and peace of mind.

Participants who were open to using (more) care technology wanted to know what solutions existed that would suit their needs, what their benefits were, and where to find out about them. Actively looking for care technology solutions was rare however, and in most cases, the care technology used was suggested by family, friends, or health care professionals.

Participants aged 75 or older were less open to using (more) care technology: for example, because they did not feel they needed it, or thought it would be too disruptive.

Having family and friends who were knowledgeable about digital technology was a key enabler for those who were open to using (more) care technology: they could suggest relevant solutions, set up and show participants how to use the technology and help them resolve teething issues. Hands-on training, clear and written instructions, and being shown how to use technology were very important to participants, especially for those who found it hard to remember things.

Other enablers for increasing adoption of care technology related to the provision of information to raise awareness of existing digital solutions, and tailored advice based on participants' specific needs.

Perceptions of care workers' digital skills varied by the type of technology: participants who were supported by care workers saw them using mobile phones or tablets (occasionally as part of their job), so assumed they had some digital skills. However, care workers' awareness, ability to advise on or ability to support the use of care technology were unknown and were not expected to be part of their role.

7.1 Participant profile

Findings in this chapter are based on depth interviews conducted with 25 people who had care and support needs and lived in England. Looking at their demographic profile, 8 were aged 18 to 64, 10 were aged 65 to 79 and 7 were aged 80 and over. They were evenly split in terms of gender (13 females, 12 males). Nine were not in receipt of paid care, and among those who did receive paid care, 11 received funding from their local authority to cover all or some of their paid care.

Four participants with care and support needs asked to have their unpaid carer present to support them during the interview, and where appropriate the carer was also invited to contribute, usually to clarify points made by participants with care needs.

7.2 Sources of information and advice about care and support

Local authorities, charities, GPs, and the NHS were the most common sources of information and advice mentioned by participants, as also mentioned by [unpaid carers](#). Nurses, occupational therapists (OTs), social workers, and care workers were also mentioned by those who were supported by them and trusted them to be able to help. Participants who knew how to use the internet said they asked their social networks, searched online, went to gov.uk or charities' web sites, especially when they did not have support from a professional who they felt they could turn to. The charities mentioned included Age UK, Age Concern⁹⁹, and charities specific to participants' conditions such as the MS Society, the RNID, Guide Dogs, the Macular Society and Parkinson's UK. Family and friends were frequently relied upon to help find information and advice, whether this was online or by contacting an organisation. This was particularly frequent among older participants, who usually turned to their children (if they had any) if they felt they needed more help.

“Initially I'd be asking family, friends. My son would look things up on the internet for me.”

Person with care and support needs, aged 65-79

7.3 Use of, and experience with, consumer technology

7.3.1 Usage of consumer technology

Ownership and use of consumer digital technology were common among participants with care needs, with computers, laptops, tablets, smartphones frequently mentioned. Some also reported

⁹⁹ Age Concern is the former name of a charity which is now part of Age UK.

using audio assistants, and these were exclusively people aged 70 or younger. Occasionally use of consumer technology was limited by a health condition affecting participants' sight, dexterity or their ability to hold a handset for prolonged periods of time: these affected the type of technology used, and the amount of time spent using it. A minority of participants did not use any digital technology and only had a landline phone. They were all aged 80 and over and had not been shown how to use a computer or smartphones, found these too complicated to use, or were afraid of doing something wrong with the technology.

“I'm frightened that I'll do something wrong and the whole thing will go wrong. I don't have the confidence for it all.” Person with care and support needs, aged 80 or over

Those who used consumer technologies used them for various purposes, including internet shopping, entertainment, keeping in contact with family and friends, finding information online, banking, booking and attending medical appointments or support groups online. [The usage of consumer technology was similar to that described by the unpaid carers interviewed as part of this review.](#)

7.3.2 Learning to use consumer technology

Participants who had learned to use consumer technology for work purposes earlier in their life reported feeling very confident in using it. For others, ownership and usage of digital consumer technology did not necessarily equate with digital confidence. They explained that they only used the functions they had been shown or were familiar with.

“I am only comfortable with the things I know how to do. For what I use it for, it's fantastic.” Person with care and support needs, aged 65-79

Among participants who had not learnt to use consumer technology for work purposes, learning to use consumer technology usually involved some hands-on explanations from a family member (usually their adult children) or friend, trial and error, and occasionally some frustration, until they became comfortable with it.

“I've got much more daring now, so, I would press too many buttons! I wasn't comfortable to use them in the beginning, but now, I couldn't be without. It makes life very interesting.” Person with care and support needs, aged 65-79

Relatives and friends were often mentioned as a source of help with consumer technology. Examples of the support they provided included suggesting technology that could be useful, buying it as a present, setting it up for the person with care needs, and showing them how to use it. Sometimes minimal and informal help could make a big difference, as in the example below.

“The other day with my new neighbour we went out for coffee and we were talking, and I said, 'Oh I've written that in my diary.' And she said, 'You've written it in your diary?' And I said 'Yes.' And she said, 'But you've got a phone. (...) Put it in your phone.' And I said, 'I know I've got that, but I don't know how I would use it.' And she showed me and did it for me. And then I was saying there's pictures I want to get rid of. And she showed me and I looked at her with a marvelling smile thinking you're wonderful, I can do it now. This is why I suppose I need the hands-on to show me.” Person with care and support needs, aged 65-79

Participants who were confident in using consumer technology, even when it was for limited purposes, were very pleased with it and felt they could not do without it. They explained consumer technology made a very positive difference to their day-to-day life, making things generally simpler and easier.

7.3.3 Barriers to using consumer technology

Many barriers were mentioned that limited the use of consumer technology, or limited the take up of some types of technology (e.g. audio assistants). These included not knowing how to use the technology, not being able to afford it, not knowing how they could benefit from it, and not being interested in it. These barriers align with those reported by participating unpaid carers, some of whom saw the reluctance or skills level of the person they cared for as a barrier.

“It doesn't even interest me. It really doesn't interest me at all. I don't know why (..) I'm just not bothered. As long as I've got my phone to phone the kids and order my prescriptions...” Person with care and support needs, aged 65-79

There were small numbers of participants who mentioned that one-to-one lessons, in person or online, would help them make more use of consumer technology, but others said that even with hands-on help they found it hard to remember the instructions.

“I couldn't do the online shopping. I have no idea. They've tried to tell me and it just goes in one ear and out the other. I don't seem to be able to concentrate on what they tell me. 'Press this button and press that button.' To me it's all alien.” Person with care and support needs, aged 80 or over

7.3.4 Impact of the COVID-19 pandemic on use of consumer technology

Asked if and how their use of consumer technology had been affected by the COVID-19 pandemic, participants' responses could be split into two groups:

- Participants who rarely went out prior to the pandemic (for example because their condition(s) affected their mobility) reported that the pandemic had no or little impact on their use of consumer technology. Where changes were reported, participants said they had started to shop online, or bought more things online than before.
- Those who were used to going out prior to the pandemic reported that their use of consumer technology had increased. Mobile phones and tablets were used more frequently, to keep in touch with family and friends via video calls or messages, to read or look at the news, play games, and to shop online. In some cases, this led to improved digital skills and confidence.

7.4 Use and experience of digital technology for care, support and independence

7.4.1 Care technology used

Participants used a variety of digital care technology, which were similar to those mentioned by unpaid carers (see [section 8.4](#) digital care technology). Pendant alarms and wristbands were the most frequently mentioned, as well as electronic reminders for medication, and video cameras around the home or by the front door, which were used for safety. Health and wellbeing apps were also mentioned. These were used for medical needs (such as to monitor blood sugar or heart rate, access medical notes or monitor pain) or for communications purposes (converting voice into text, for those with a hearing impairment). Movement or motion sensors and voice operated doors or curtains were rarely used.

In addition to the above, some participants explained that they used mainstream consumer technology for care and support purposes. Examples mentioned included having alerts on their phone or smart watch to remind them about appointments or medications, using their smartphone or tablet for video calls with doctors or nurses, having a camera at the front door connected to their phone

to see who was ringing the bell and opening the door with their phone, and using Satnav to travel independently.

7.4.2 Finding out about care technology

In most cases, care technology was suggested by people close to the participants, usually family members (adult children, siblings, friends), or health and social care professionals at the hospital, local authority or extra care housing. Occasionally participants heard about care technology solutions by word of mouth, from friends or acquaintances who had similar care needs. Actively looking for care technology solutions was rare and the few participants who did this mentioned looking on the internet or asking friends and social media groups. Those who did not use care technology but were open to using some explained that they did not know what solutions existed or where to go to ask for information. Some participants said they would like to be able to try the technology before buying to ensure it really met their needs.

7.4.3 Perceived benefits and drawbacks of care technology

The benefits of the care technology used included personal safety, security, peace of mind for the participants and their loved ones, independence (being able to do things for themselves without having to ask or rely on others), and more generally 'making life easier'. These were [similar to the benefits mentioned by participating unpaid carers](#).

"It's a secure feeling knowing that you can get help, be able to feel independent and not having to, perhaps, rely 150% on someone else. I mean, I couldn't live without my son, but it makes me feel so much better." Person with care and support needs, aged 65-79

Overall, participants who used care technology or who used consumer technology to meet care and support needs were very positive about it. This was especially the case for people who had been disabled for a long time and had learnt to use technology as part of their day-to-day life, to keep some independence and keep safe. Over the years they had become very reliant on it and saw technology as an integral part of life.

"I don't know how I'd survive without technology, I really don't." Person with care and support needs, aged 18-64

A few drawbacks were mentioned by participants who used care technology. Cost was one of them. A few participants had explored possible technology that they could benefit from and identified some they would have liked but found it unaffordable.

"I had [screen reader software] loaded onto my laptop, but it had to be upgraded to Windows10, and my technology won't work on Windows10. Which means I need to buy the next package, but it's over £1,000, and I don't have that money, so for me, that's totally out of reach." Person with care and support needs, aged 18-64

In other cases, it was the ongoing costs of the care technology that was a drawback, in particular for alarms, but this could be mitigated by changing provider. Cost was mentioned as a barrier more by people with care needs than unpaid carers interviewed as part of this review.

Having to remember to wear the technology was also mentioned as a barrier. This was an issue for personal alarms, with people taking them off at night or when showering, and then having a fall when going to the toilet at night or forgetting to put them back on. Some participants also mentioned feeling

embarrassed to wear an alarm pendant when going out as they felt it labelled them as vulnerable. The wristband version was considered more discreet. Participating unpaid carers similarly mentioned that remembering to wear the technology or use it correctly could be a barrier for the people they cared for.

Other drawbacks of care technology reported by people with care and support needs included:

- needing to learn how to use the technology and the difficulty this causes for those who are forgetful or have memory problems
- needing help to set it up
- technology replacing face-to-face contacts.

“It [the technology he uses] takes away the personal, physically having someone here, physically having someone to talk to, physically having someone around. For some people, it's massive. The highlight of some people's day is their carer coming in.” Person with care and support needs, aged 18-64

7.4.4 Non or low users of care technology

Some participants did not use any care technology or only used a personal alarm. Non-use of care technology was found among those who had access to technology as well as those who did not. Some participants mentioned not wearing their alarms, leaving the technology in the box, or ignoring reminder alarms when they went off. The reasons they gave were similar to those limiting the use of consumer technology. A common one was not feeling they needed it, for example because they felt their care needs were not severe enough to justify it or because they felt well supported already. Those who gave these reasons did not consider the prevention role that care technology could have, nor did they mention that care technology could allow carers to have a break.

“I don't really feel I've got a need. A personal alarm sometimes might be useful for when I'm on my own. But it's difficult to say isn't it when you get to a borderline when you need that alarm and when you don't?” Person with care and support needs, aged 65-79

Overall, among non or low users of care technology, there was a low awareness regarding the range of care technology solutions available, how they could benefit from them and where to find out about them. This low awareness of care technology [was also observed among participating unpaid carers](#). With the exception of personal alarms, participants who used little or no care technology did not know about any of the other care technology discussed until the products were explained as part of the interview. Related to this, some participants expressed limited interest in care technology.

“I don't really know [how to find out about care technology]. I'd have to rely on my daughters to tell me. I don't know what other devices there are.” Person with care and support needs, aged 80 or over

Accessibility considerations were also mentioned as a barrier, for example being hearing and/or visually impaired, or having dexterity problems due to arthritis.

Many participants who were open to using care technology but who, until the interview, were not aware of the solutions available, could see how some of the technologies presented could help them. For example, voice operated technology was found useful by participants with mobility or dexterity problems, who also mentioned solutions that could help them in their day-to-day life such as a voice operated

washing machine, TV, kettle, and taps. Those keen to remain independent found the idea of sensors appealing and preferred that to having paid carers in their home. Alarms and digital reminders for medication appealed to those who had a family carer living with them if their carer went out or away for a few days.

When asked if they would have any concerns about adopting some of the care technology discussed, the issues mentioned were similar to the drawbacks raised by participants who were regular users of care technology. They included wondering how much it would cost, whether this would be affordable and worth the money (the assumption was that technology was expensive); and the difficulties involved in setting the technology up and learning how to use it (which some thought they should be able to overcome). Sensors or alarms going off unnecessarily, concerns over privacy and data protection, and the loss of social interactions were a concern for a minority. Among people aged 80 and over, there was a worry that technology could be ‘forced’ upon them as a result of the shift towards greater digitisation, despite them not wanting it.

7.4.5 Enablers

Participants with care needs who were open to adopting (more) care technology mentioned the importance of hands-on training or instructions to get them started. For some this was light touch: the instructions that would come with the technology were assumed to be sufficient. Others said they would need a more hands-on approach, they would need to write down the instructions to remember them, and would probably need support from family members (usually their adult children or their grandchildren, if they had any) to help them choose the technology and set things up.

7.5 Perceptions of the digital skills of the care workforce and unpaid carers

7.5.1 Perceived digital skills of unpaid carers and other family members

Participants who had unpaid carers or family around them thought they would be able to receive help from them if they needed support with using consumer technology. Indeed, those who used technology said they were being supported by family members already. When explaining their situation participants frequently mentioned family members such as adult children and their spouse or partner, and grandchildren.

Most participants thought that their unpaid carers and family members had a low awareness of care technology specifically (as opposed to consumer technology), or simply did not know how aware they were. This lack of awareness was also found in [the research with unpaid carers](#). The exception was participants who had family members working in health care, who said they heard about care technology from them.

“My son used to work as a physio assistant for about 12 years if not longer, and of course he's aware of my needs and anything on the market he would suggest to me.” Person with care and support needs, aged 65-79

7.5.2 Use of technology by care workers to deliver care, and perceived digital skills

A total of 16 participants were in receipt of paid care.

Use of technology by care workers to help deliver care was described as rare: only two participants said their care workers used a smartphone or tablet to record their visits, look at care plans or medication records, and write up notes. No concerns were raised about this alternative to paper records, but one of the participants said they would have liked to see the digital notes.

Participants who were supported by care workers had seen them with a mobile phone and as a result assumed that they had at least some digital skills but were unsure about the extent of these skills. Asking care workers for help with consumer technology when participants got stuck was an option, but only for those who felt close enough to the person supporting them (for example, because they employed that person directly). Others did not feel this was part of a care worker's job or did not know if their care workers would have the required skillset.

“She has in the past [helped me with my iPad] if I've made a mistake. 'What have I done? Can you get me back to normal?' It's very basic, what I do. She can sort me out. Sometimes I press the wrong button or I've deleted something. Or my fingers slip, although I've got a little pen to use. If she's not here I have to leave it.” Person with care and support needs, aged 80 or over and individual employer

Participants did not know whether their care workers would be familiar with care technology specifically. This was not a topic they discussed with them and they did not consider that informing or advising them on care technology was part of care workers' jobs. Similar views were expressed in the interviews conducted with unpaid carers.

7.6 Views of how digital technology could be used in the future

7.6.1 Attitudes towards care technology

Attitudes towards using care technology in the next 2 to 3 years varied by age. The oldest participants explained that while they could see the benefit of technology, they did not want to use more care technology themselves either now or in the future, because they felt already very well cared for, or thought that it could be disruptive or unnecessarily complicated at their age. This reluctance to adopt technology was also mentioned by some unpaid carers as a barrier to its adoption. Some people with care needs interviewed already had an alarm and felt this was enough to keep them safe.

“I think I'm quite content as I am, I don't want to get into complicated technology or anything like that because I've got family who give me help and I'm very happy with that.” Person with care and support needs, aged 80 or over

Participants of working age or under 75 were usually open to using (more) care technology in the future if they needed it, assuming it would enable them to retain independence, keep them safe, or allow them to continue living in their home.

“I don't mind using them [care technology], as long as they're pertinent to my support and my health and they're going to give me some independence or some confidence or reassurance in any way. I'll try anything, me. Anything to make life easier. It's a bonus, especially when you're as disabled as I am, and life's such a struggle.” Person with care and support needs, aged 18-64

A small minority of participants aged under 75 were trying to keep themselves informed about care technology solutions, or actively looking for care technology that could help them if or when their needs escalated. They were usually people of working age who were using a fair amount of technology already or had conditions that could deteriorate.

“I do keep abreast of as much as possible. I'm in quite a lot of disability Facebook groups so I do try and keep up as much as possible. As far as I know, I don't think there's anything really out there at the moment that would make things any different or any better.” Person with care and support needs, aged 18-64

Among the participants who were open to using (more) care technology in the future, a number of uncertainties or limitations about the practicalities were raised:

- A few participants wondered if their care needs were severe enough to justify it and did not know how to identify the “tipping point”.
- Many did not see the preventive aspect that some care technology solutions could play in their care.
- Those who were not familiar with care technology needed more detailed information about the solutions currently available to see how they could benefit from them.

7.6.2 Care technology solutions considered for the future

During the interview, participants were given examples of care technology solutions: personal alarms, sensors to monitor movements, audio or motion sensor technology, audio assistants, wearable technology (smartwatch), online platforms to manage and monitor one’s health and wellbeing, devices that provide a reminder to take medication, health and wellbeing apps for smartphones, voice operated doors or curtains. Participants who were open to using (more) care technology in the future were asked about which types they would consider. When answering, participants mentioned some of the examples they had been told about during the interview, as well as other options they were aware of:

- wristband and smart watches to help monitor health conditions such as heart disease
- audio assistant and other voice activated technology, which was appealing to those with mobility or dexterity problems
- motion sensors
- driverless car and a wearable device that reads text, recognizes faces and allows people to access visual information conveyed by audio, mentioned by visually impaired participants
- apps to track care workers and see when they will be coming in, to avoid having to contact them or their office to find out.

7.6.3 Support needed to choose, access and use more technology in the future

Participants who were open to using more care technology in the future mentioned the support they would need to be able to do so, namely:

- financial support towards the costs of technology. This was the most frequently requested type of support.
- information and advice, to raise their awareness of existing care technology, how they could benefit from it, and where to buy it from. More ad-hoc and tailored advice was also requested, for example from a GP or OT to assess their needs and suggest appropriate technology.
- support to learn how to use it and use its full potential. Some of the participants who were supported by an unpaid carer emphasised the importance of including their carer in the decision to use technology in the future, as they would most likely be the person setting it up for them and supporting them to use it.

7.6.4 Where support should come from

Local authorities were seen as best placed to support people with their needs in relation to care technology. Local authorities were considered impartial and the main 'port of call' when people develop care needs. It was assumed that local authorities could provide care technology to people eligible for LA-funded support, either free of charge or at a reduced cost. Other organisations mentioned included the NHS, to identify needs and/or inform people of the solutions available. This was particularly mentioned by people who had regular hospital appointments for their condition(s) and thought that the specialist healthcare staff they were in contact with (for example the 'MS nurse') would know about suitable care technology that could help them. Charities were less frequently mentioned, but those who mentioned them assumed that they might be able to source or sell care technology at a discounted rate (due to their charitable status). Some participants were already seeking advice from local or national charities when buying disability related equipment.

Thinking about the role that these organisations could play, participants wanted to see more promotion of care technology among people with care needs, as well as more consistency in the referrals for care technology, so that everyone with the same condition would have the chance to hear about existing solutions they could benefit from, rather than relying on whether or not a professional mentioned it, or having to ask about it.

“But had I not gone to an appointment that my sister sourced out, where you can go to see somebody about equipment, I would never have got it [a strong magnifying glass with a light].”
Person with care and support needs, aged 18-64

8 Unpaid carers

Chapter summary

The findings in this chapter are based on discussion groups and depth interviews conducted with 24 unpaid carers of people with care and support needs. These interviews and discussion groups aimed to explore participants' general use and comfort with digital technology, their views and experiences of using technology designed to support care and independence, their perceptions of the digital skills of care workers, and their views of how digital technology could be used in the future to support the care they deliver and the independence of the person they care for.

Unpaid carers obtained general information and advice on care and support services from a wide range of sources, similar to those used by people with care and support needs. Formal channels included GPs, hospitals and local authorities, and informal ones were support groups, the internet and word of mouth. **Several unpaid carers expressed a desire for a single source they could go to for all information, support and advice relating to care.**

The unpaid carers who took part were generally not very digitally confident. In common with the majority of participants with care and support needs, many unpaid carers were dependent on younger members of their family to set up new applications, to teach and remind them how to use digital technology, and to troubleshoot. **Most of them were happy to stay within their comfort zone and did not see developing their digital skills as a priority.** A smartphone was the device most commonly used, followed by tablets and laptops. The pandemic had prompted nearly all participants to increase and expand their use of digital technology, especially video calling.

Mainstream digital technology was used for care and support purposes, especially video calling and virtual assistants, and this was more common than any specific digital care technologies.

However, **there was limited awareness of the range of digital care technology, particularly among unpaid carers who lived with the person with care needs.** By far the best-known digital care device was the pendant alarm or panic button, and of the two in three unpaid carers who had experience of digital care technology, in nearly all cases it was a pendant alarm.

The single biggest reason for not using digital technology – either consumer or care specific - was lack of awareness about what is available. The other key reason was a lack of perceived need. Also, the adoption of digital care technology tended to be reactive rather than proactive: there were several instances of people thinking about starting to use technology after the person's condition had changed. These reasons for not using technology were similar to those reported by people with care needs (see [section 7.3.3](#) and [section 7.4.4](#)).

The interview or group discussion acted as a tutorial for some of the unpaid carers about the range of digital care technology available. Many were excited by how digital technology could help them meet their caring responsibilities as well as help the person they cared for. Of most appeal were modern personal alarms, camera doorbells, voice activated technology and carer apps. However, **participants who were receptive to using new care technology still said they would require support to adopt it.**

Participating unpaid carers identified the main benefits of digital care technologies as giving them reassurance and peace of mind; giving them more time, freedom and respite; and making them a better carer.

The main barriers they faced when accessing digital care technology were: limited awareness of and knowledge about digital care technology available; a basic level of digital confidence and, linked with this, low purchasing confidence; concern that technology was replacing the human aspect of care; concern about digital security and safety; and reluctance from the person being cared for to use digital technology. The first 3 mentioned here were also mentioned by the [people with care and support needs who took part in the review](#).

To help them use digital care technology, participating unpaid carers suggested a digital care technology promotion campaign to educate and inform about what is on the market. They also wanted to have the benefits for both carers and the person being cared for spelled out; be reassured about digital security and safety; and be reassured that digital care technology is complementary to human care, and that it meets individual needs. Unpaid carers also said they needed digital care technology that is simple to use and reliable, accompanied by face-to-face training and an approved supplier list with ratings and reviews from users.

8.1 Participant profile

This chapter explores the awareness of and current use of consumer and care digital technology by unpaid carers as well as their views on the future use of these technologies. It draws on the findings from 4 discussion groups and 7 depth interviews. Overall, 24 unpaid carers of people with care and support needs took part in the research. Looking at their demographic profile, 16 of the participants were women and 8 were men; 8 were under the age of 50, 5 were aged 50-64, 7 were aged 65-79 and 4 were aged 80 and over. 14 participants were living away from the person they cared for, and 10 were live-in carers. The care and support provided ranged from visiting a few times a week to provide company and domestic help, to 24/7 care.

8.2 Sources of information and advice on care and support services

The unpaid carers who were interviewed obtained general information and advice on care and support services from a wide variety of sources, such as:

- **GP surgery:** this was described as the ‘first port of call’. However, concerns were highlighted that GPs did not always provide enough follow up information and support.
- **Hospital:** support was provided at the point of discharge of the person with care needs. Hospital staff organised visits from a social worker, occupational therapist, physiotherapist or support worker. Many unpaid carers found this support very valuable, their only criticism being that it was temporary. In some cases, hospital staff provided information and advice leaflets about care and support services relevant to the person they cared for.
- **Local authority:** the local authority tended to be used for information and advice by participants who already had a relationship with social services but was not an obvious choice for those who were not already receiving formal social care support.

“I don’t really want to go to social services, I suppose I could if I had to, but I think I’d go private like my sister did. I’ve got some money, I have.” Unpaid carer aged 65-79, living with a person with care and support needs

- **Individual care and medical professionals who provide regular support:** some unpaid carers who took part in the research referred to the social worker, support worker, or mental health nurse of the person they cared for when they needed information and advice on care and support services.
- **Charities and the voluntary sector:** there were sporadic mentions of organisations such as Age Concern¹⁰⁰ and Citizens Advice Bureau.
- **Support groups:** the unpaid carers interviewed expressed a need for emotional support and accessed this from a range of places, such as face-to-face support from carers' centres and carers' sitting services, or on-line support through Facebook groups.
- **Internet:** this was mentioned as a source of information and advice by a minority. Those with more advanced digital skills did the searching themselves, while those with more basic skills relied on younger family members to help or do it for them.
- **Word of mouth:** finding the answer to a problem was sometimes serendipitous, for example, after years of being an unregistered carer one participant was told about a local carers' centre by an acquaintance.

Although a range of information sources were described across the interviews, a key concern for some participants was that they did not know the best place to go for information, support and advice. They described a lack of information about what support and advice was available to help them in their caring role, and a sense that those who did know did not tell them. The key message from these unpaid carers was that they wanted a single source of information and advice covering everything - from practical help, through to emotional support. For the more digitally minded, this could be an app.

“There needs to be one place and I didn't find anywhere that is one place.” Unpaid carer, discussion group, living with the person with care and support needs

However, a few participants felt they had no need for any information or advice. Although they knew about organisations that could help, they had not felt the need to contact them as they felt they knew what they were doing and were in control. A small number of participants expressed a fear that seeking out help would label them as unable to cope.

8.3 Consumer digital technology

8.3.1 Consumer digital technology usage and skill

The smartphone was by far the most common digital technology device used by the unpaid carers who took part. Only one of the 24 participants did not have a smartphone. A minority also had a tablet, laptop or, less commonly, desktop computer, but these devices were used much less often than the phone. Many felt, whereas the phone did everything, laptops, tablets and computers had fewer functions, such as internet searching and watching films.

Two-thirds of participating unpaid carers regarded themselves as having a limited but adequate level of digital skills and were confident using their main device for specific tasks. They generally mentioned doing around five out of the following: texting, sending emails, taking photos, searching the web, video calling, playing cards/doing puzzles, watching films, online shopping, online banking, and

¹⁰⁰ Age Concern is the name for a former charity which is now part of Age UK

using Facebook and apps. They were split in their attitude towards developing their digital skills. A handful of participating unpaid carers enjoyed digital technology and actively tried to learn new things. They tried to be independent and to work things out for themselves before asking for help. The remaining participants were happy to stay within their comfort zone, doing what they knew how to do, but did not see improving digital skills as a priority. They were generally dependent on younger members of their family to set up any new applications, teach, remind, and troubleshoot.

“I'm not a big fan of technology. I usually have to ask my kids to help me. It's alright when it's working OK but as soon as you have a problem, I don't really know what I'm doing.” Unpaid carer, discussion group, living with the person with care and support needs

“The kids have now put us onto WhatsApp, so we can talk and actually get a picture on WhatsApp and see what the grandchildren and the great-grandchildren are getting up to, which is a great help when she's stuck in the house.” Unpaid carer aged 80 or over, living with the person with care and support needs

A handful of unpaid carers who took part had high levels of digital skills and were digitally confident. They used their personal digital technology to its full capability. They used it for everything: messaging, emails, video calls, photos, social media, banking, shopping, searching the web, audio assistants and multiple apps. They had no problem adopting something new.

At the other end of the scale, two participants who were 80 and over were not at all digitally confident. They said they were not comfortable using digital technology, they were not open to using more in the future, and they did not see the need for learning digital skills as a result.

“No (I'm not comfortable). I mean I'm not a technophobe at all, well I am, that's what I am. So, yes, I suppose I haven't got the confidence, shall I say.” Unpaid carer aged 80 or over, living with person with care and support needs

8.3.2 Impact of the COVID-19 pandemic on use of digital technology

The COVID-19 pandemic prompted nearly all participants to increase and expand their use of digital technology. The biggest expansion was video calls on applications such as Zoom, WhatsApp or Facetime. Many of the unpaid carers interviewed learnt how to do this during the pandemic. It was used to communicate with family and friends, with the doctor, the person's support worker or other medical professionals and, in cases where the unpaid carer did not live with the person they cared for, the person themselves. People also mentioned doing more online shopping. One participant mentioned they had sent photos of pressure sores to medical staff to help with a consultation for the person they cared for. Another said that because of lockdown, they had had more time to learn about what they could do on their phone.

8.3.3 How consumer digital technology helped people in their role as an unpaid carer

Consumer digital technology had multiple benefits for participating unpaid carers, the most important being video calling. WhatsApp, Zoom, Facetime and similar took pressure off unpaid carers by reducing the number of in-person visits needed, for those who did not live with the person they cared for. It enabled carers to check in with the person they supported more easily and there was an instance of it being used as a remote teaching tool to explain to a parent how to record something on television. It was mentioned that video calling also made communication with care and medical professionals easier

and more efficient. One example given was a social worker assessment about a parent moving in with an unpaid carer held by video call. All of this was felt to be especially useful during lockdown.

Digital technology was also used to provide emotional support to unpaid carers. A good example of this was a woman in her 30s who looked after her mother full-time at home, and was not able to leave her and go out with friends. She used Facebook, Instagram and WhatsApp as a way of socialising and reducing her feelings of isolation. A few unpaid carers personified Alexa (an audio assistant) to the extent of making her into a companion. Being able to ask her questions, having her respond in her 'nice voice' and being able to say goodnight to her was like having a friend in the house.

“Once I’ve tucked mum into bed on Saturday night, I will have a glass of wine and sit and talk on Zoom to my friends because that’s the closest thing I get to normal.” Unpaid carer, discussion group, living with the person with care and support needs

Digital technology supported participating unpaid carers with caring tasks, for example setting medication phone reminders, or searching on the internet to understand more about a person’s condition and behaviours.

“My mum sets reminders on her phone, and so do I, so we don’t forget my dad’s medication.” Unpaid carer aged under 50, living away from person with care and support needs

8.3.4 How consumer digital technology helped the person with care and support needs

Unpaid carers who were more proficient with technology regularly used it as a tool to enhance the care and support they gave. There were numerous examples: looking up information on the internet for the person they cared for, adding apps on their phone, setting up a video call, playing old films on the computer, playing old songs on Spotify, using an audio assistant as a game to entertain.

“Sometimes if I’m holding her hand or dancing with her, I can shout to Alexa to change the music.” Unpaid carer, discussion group, living with the person with care and support needs

Participating unpaid carers described video calling as the mainstream digital technology that had benefited people with care and support needs most. It enabled them to keep in touch with family and friends and reduced feelings of loneliness, boredom and isolation. It was regarded as particularly good for communicating with younger members of the family, like grandchildren and great grandchildren.

“He adores all the kids so for him to be able to see them when he wants is important. He’s a people person and he wants to see people.” Unpaid carer aged under 50, living away from person with care and support needs

8.4 Digital care technology

8.4.1 Awareness and use of digital care technology

Among the unpaid carers who took part, there was limited awareness of the range of digital technology specifically designed for care. Some unpaid carers struggled to think of any examples without prompting and occasionally interpreted digital care technology as other tools, for example a clock on the wall with date, month and year, or mainstream digital technology. Awareness of care-specific digital technology was mostly determined by usage. In other words, the unpaid carers were not aware of technology much beyond what they had experience of, either through the person they were caring for or another member of the family having used it or, in a couple of instances, the participant having been a

care worker themselves. Nearly everyone was aware of personal alarms. There was occasional awareness of cameras, bed sensors, alarmed cushions and medical apps.

“I know about the one that people can wear for help, because my mother had one of those. I'm aware of those. I suppose I've not really thought about anything else.” Unpaid carer aged 80 or over, living with the person with care and support needs

Although awareness of the range of care-specific digital technology was low, just under two-thirds of participants had experience of using at least some specific digital care technology.

Unpaid carers who lived away from the person they supported were much more likely to use digital care technology than people who lived with the person they cared for. In most instances the person with care and support needs had some kind of alarm: a pendant alarm, panic button, pull cords or, in one case, a wristband. Across participants there was a single mention of each of the following being used: bed sensors, a GP appointment app which contained medical information, and a hospital discharge recovery app. No other digital technology specifically designed for care provision and support or monitoring was used.

Carers also described how they used digital consumer technology for care and support purposes. There was a single mention of doorbell with a camera, answering the doorbell from a phone, and mention of a baby monitor being used as a camera.

8.4.2 Reasons for non-usage of digital care technology

The single biggest reason why care specific digital technology was so little used was that participants did not know about it. Participants were not aware of the variety of care technology available so were not in a position to make use of it.

“Some of these I've never heard of. There's a lot of things that aren't advertised.” Unpaid carer, discussion group, living away from the person with care and support needs

“There must be advantages [to using digital technology] but we don't [know] them, we don't know what there is and if you don't what's about, you don't know what you're missing do you?” Unpaid carer aged 80 or over, living with the person with care and support needs

Another key reason for non-usage was a lack of perceived need. A few unpaid carers said they had coped without these technologies to date and had managed to care for their relative or friend successfully without feeling the need for extra help. This was because they regarded their friend or relative's care needs as minimal or straightforward, or because they considered themselves perfectly capable without the assistance of technology.

“At the moment I haven't had any need for it. Although he's had dementia for about 5 years, he hasn't got as bad as so many other people in 5 years. I suppose I've been very lucky.” Unpaid carer aged 80 or over, living with person with care and support needs

Adopting digital care technology tended to be reactive rather than proactive. There were several instances of unpaid carers thinking about starting to use technology after the person's condition had changed.

“We've not really looked into other things, but I think over time we'll have to because her condition has worsened...because I've been at home every day...there hasn't been that much need for additional technological input...but if I wasn't here if I was travelling...then things would

be different and as circumstances change, we might have to have cameras fitted and other things done.” Unpaid carer aged 65-79, living away from person with care and support needs

8.4.3 Attitudes toward digital care technologies

The participating unpaid carers identified the main benefits of digital care technologies for themselves as being reassurance and peace of mind; giving them more time, freedom and respite; and making them a better carer. For the person with care and support needs, the main benefits were seen as increased safety, greater independence and improved quality of life. [These benefits were also expressed by people with care and support needs.](#)

Participants identified the main drawbacks of digital care technologies as incorrect usage because the person with care needs lacked capacity, invasion of the person’s privacy, and the technology potentially being unreliable.

Because there was limited awareness and experience of using digital care technologies, apart from personal alarms, the interviewer described the different types of digital care technology to participants in nearly all cases. The findings set out below are therefore mostly based on perceptions rather than experience.

Personal alarms: This was one of the few digital care technologies that participating unpaid carers had experience of either directly or by hearsay. For someone living by themselves it was viewed by all participants as essential technology enabling a person to access help in an emergency. From the unpaid carer’s point of view the main benefit of this technology was the peace of mind it provided. It enabled the unpaid carer to leave the person by themselves which, for a live-in carer, provided respite. However, wearable personal alarms were thought to have drawbacks. It was well known that people took them off or refused to activate them. False alarms were another problem; one unpaid carer complained of the pendant being triggered in the night when the wearer rolled over. A condition of use was the wearer having the mental capacity to use the device properly.

“She’d be pressing it for fun or she’d just take it off and leave it.” Unpaid carer, discussion group, living with the person with care and support needs

A more sophisticated personal alarm like a wristband or smartwatch was felt to overcome some of the drawbacks of the pendant alarm, in that it sent out an automatic alarm directly to the carer. It was thought to be like merging a panic button and phone together and more likely to be worn than a pendant. However, it was not clear that all participants fully understood how the technology would work and only a few appreciated the data collection aspect of it.

Voice activation technology: The idea of voice activated technology, particularly a voice operated front door coupled with a camera, had wide appeal. Being able to open the door remotely after seeing who is there, was felt to provide a person living alone with increased personal security. It was felt that it would help to protect the person with care needs against con artists, stop them having to rush to answer the door and possibly fall, and enable them or the carer to deal with deliveries. All of this gave participants increased peace of mind. It was pointed out that the technology needed to be sophisticated enough to respond to multiple voices if the person had several carers or care workers.

“It gives me peace of mind. It’s not for him, it’s for me!” Unpaid carer, discussion group, living with the person with care and support needs

In general, the idea of voice activation held great appeal and captured imaginations. It was seen as a way for people to do more things for themselves for longer. In the form of an audio assistant such as Alexa, it was also viewed as providing a companion. One participant suggested voice activated mobile phone technology for those who cannot remember passwords or are unable to type.

“I think the voice is the last thing that people will lose and more than food you need someone to talk to, that's the main thing.” Unpaid carer, discussion group, living with the person with care and support needs

Cameras: Most unpaid carers who looked after someone remotely saw the benefits of cameras as being able to keep an eye on the person they cared for 24/7. They felt cameras could alert them to any problems and could allow the carer to make fewer in person visits. However, a few of these felt this could be an invasion of privacy and that the person themselves could object to being monitored.

Motion and movement sensors: These were felt appropriate only in certain situations. Participants with knowledge of sensors regarded them as overly sensitive and often triggering false alarms, creating unnecessary visits from the carer.

A medication reminder app was thought useful if a carer needed to administer lots of different medication at different times of the day. It could help avoid mistakes and reduce stress for the unpaid carer. However, it was felt to be unnecessary if medication needs were straightforward or if the carer considered they had already had an effective system.

A general carers' app appealed to some but not others. For some it had the potential for being a 'one stop shop' for everything they needed as a carer which would make their caring responsibilities easier to fulfil. It was seen as something they could use to variously monitor care, book appointments, get local authority information, arrange assessments for care, find links to useful websites, charities, or local support groups, organise their time and share information with other unpaid carers. It was thought that this kind of aid would be particularly helpful to new unpaid carers. More experienced carers did not see additional value in using an app of this nature. They felt they had successfully organised their time around the person they cared for and did not need any additional support.

“I could co-ordinate with my mum and take over easily when she needs a break”. Unpaid carer aged under 50, living away from person with care and support needs

“I know exactly what I'm doing ... I don't think you need an app to tell you how to look after someone.” Unpaid carer, discussion group, living away from the person with care and support needs

A carer's wellbeing app provoked a divided response. Some could see the benefits of paying attention to the carer's wellbeing and they thought it would be especially helpful for new carers. Others did not consider a wellbeing app as relevant to them and viewed it as potentially time consuming.

“I haven't got time to (worry) about my own health.” Unpaid carer, discussion group, living with the person with care and support needs

8.5 Paid care workers

Most participants had no experience of care workers either because they lived away from the person who needed care and had no contact with their care workers, or because the person they cared for did not receive paid care.

Participants who were able to talk about care workers thought that most care workers used a mobile device to clock in and out. Some recorded their visit digitally, but others left paper notes. The participating unpaid carers preferred digital records if they were able to access these on their phone. They felt it was reassuring to know that the care workers had turned up and what had been done. Another benefit of digital over paper record keeping was that the care organisation got a live report, which could be acted upon quickly if there was cause for concern. However, one unpaid carer preferred it when paper records were left at the house for her to look at.

There was no mention by participating unpaid carers of care workers using digital care technology with the person with care needs. The unpaid carers did not talk to paid care workers about digital care technology. It was assumed that care workers were not very knowledgeable about this, and that knowledge about care technology was outside their job remit. In terms of care workers' digital skills, there were two points of view: that because most of the care staff were young they were able to use digital consumer technology; the other being that as some care workers who had difficulty operating domestic equipment like a cooker or microwave, they were unlikely to be digitally confident.

8.6 Using digital care technology in the future

8.6.1 Interest in using digital care technology

The interviews and focus groups acted as a tutorial for unpaid carers about the digital care technology available. Talking and learning about it was a revelation to all the participants. Many were excited by how technology could help them meet their caring responsibilities as well as help the person they cared for. The fact that technology could help someone in their caring role was a new concept for some.

“I've never really heard of these apps but anything that would make me a better carer, of course of course...” Unpaid carer aged under 50, living away from person with care and support needs

“I think that anything that helps either of you and gives peace of mind is useful.” Unpaid carer aged 80 or over, living with person with care and support needs

Overall, most of the unpaid carers who took part were very receptive to using new technology. There were several examples of participants declaring that, because of what they had learnt, they would definitely investigate a specific piece of digital technology. Even if none of the care technology discussed was relevant to them at present, most appreciated how it might be useful in the future, or for someone with different care needs or at a different stage of need. There was a feeling that care technology could be especially useful to new unpaid carers.

“The future is technology.” Unpaid carer, discussion group, living with the person with care and support needs

However, occasionally there was reluctance to consider new technology. In two instances, a live-in unpaid carer could not see how digital care technology could help them or the person they cared for. In both cases the person had advanced dementia and required someone to be with them all the time. These unpaid carers regarded care as something a person, not technology provides. It was also noticeable that these two unpaid carers were less comfortable with technology generally.

“(The app) is incongruent with being a carer ... one is very left brain ‘computery’ and the other is people skills and being more personal and sensitive ... it’s opposite ends of the spectrum.”

Unpaid carer, discussion group, living with person with care and support needs

8.6.2 Barriers to using digital care technology

Limited digital knowledge and confidence were a major barrier to greater usage of digital care technology. Among the people interviewed, a sizeable group of unpaid carers expressed interest in new care technology, but stated they were not confident in their ability to cope with it. Some felt they needed to rely on a younger member of the family to research, choose, set up the device and teach them how to use it. Others were nervous about having to teach or explain new technology to the person they cared for; they were worried that they themselves would forget how to use it; and that it might go wrong or run out of charge. There was also some ignorance of the full functionality of specific digital technology, for example, those who used Alexa mentioned playing music and asking questions but nothing else. Some unpaid carers were aware of the limits of their knowledge admitting, for example, they did not really understand apps on phones.

“I’d be quite happy with that [using more care technology for her mum] if I was aware of what there was and if it was easily implementable.” Unpaid carer aged 50-65, living away from person with care and support needs

Linked to limited digital knowledge and confidence was a lack of purchasing confidence. Too many sites, too much information and too much choice combined with only basic knowledge meant that many participants were reluctant to buy more digital technology – unless under the guidance of a younger family expert.

A significant barrier many reported related to the capacity of the person with care and support needs. Some participants thought that the person they cared for might not be capable of using the technology due to mental or physical incapacity. For example, someone who is deaf will not be able to hear a phone alert. An unpaid carer explained that her mother, who had phone handsets in many rooms, forgot to disconnect calls which meant that the daughter could not contact her so had to go round to check up.

“I’m not sure if he will ever get his head round anything technical. He’s got a very simple mobile phone but, to be honest, he really doesn’t know how to use it at all. It’s sheer luck if he manages to answer it.” Unpaid carer aged 80 or over, living with person with care and support needs

In a few cases, the person with care and support needs had not been supportive of using digital technology. In others the carer felt they would refuse to accept a particular device such as cameras or sensors. This reluctance to accept technology was also found in interviews with some people with care needs (see [section 7.4.4](#) and [section 7.6.1](#)).

Data security and privacy were concerns for some participants. A few unpaid carers were anxious about digital technology exposing the person they cared for to scammers and fraudsters; some had qualms about security of data; and there were sporadic mentions of privacy and being spied upon by ‘Big Brother’. Concerns about privacy were expressed more in the interviews with unpaid carers than in interviews with people with care and support needs.

“I've heard mum over the phone giving out bank details and all sorts ... she has no idea who it is ... I think you would have to be a bit careful with anything digital coming through.” Unpaid carer, discussion group, living away from the person with care and support needs

There was some scepticism about digital care technology doing what some saw as a human's job. A small minority of unpaid carers held the perception that technology aimed to replace human care but felt that what they did could not be done by technology.

“(Caring is) very personal ... part of it is the nurture you provide and the love and reassurance ... looking after someone with advanced dementia, I'm not going to find anything from a technology point of view that's going to change my life.” Unpaid carer, discussion group, living with the person with care and support needs

The more common view was that digital care technology has a role but that it must be complementary to face-to-face care. There was a desire for care to remain person centred and a request that people who are less technologically able are not left behind. It was pointed out that adoption of digital care technology depended on individual needs; it was appropriate for some people but not others.

“Don't use it for the sake of it.” Unpaid carer, discussion group, living with the person with care and support needs

The potential unreliability of digital care technology was seen as a possible drawback. A few unpaid carers had experience of, or knew of cases, where this had happened. One example given was of an alarmed cushion going off every time someone got out of their chair. Unreliable or overly sensitive devices made it difficult to determine a genuine emergency and resulted in unnecessary call outs for the unpaid carer.

8.6.3 Interest in specific types of digital care technology

Most unpaid carers expressed interest in at least one of the digital care technologies presented and suggested some new ones themselves. These were:

- modern personal alarms
- camera doorbell
- voice activated devices in general
- tracker devices
- cameras
- audio assistants such as Alexa
- something that turns audio to text; this would be valuable for people who are deaf
- carer apps: to help the unpaid carer organise and share caring; provide emotional support; provide practical support; a one-stop shop app.

8.6.4 Support needed to choose, access and use digital care technology

One of the key requirements of digital care technology for participating unpaid carers was that it needed to be simple. Both the person with care needs and the carer would need to be capable of using it correctly and remembering how to use it. Alexa (an audio assistant) was hailed as exemplary in being simple.

Participants also wanted to be taught how to use new technology. They wanted face-to-face tuition (from a younger family member) or 'old fashioned' leaflets, for themselves and the person they cared for.

"It's okay giving someone a tablet or a laptop, but then there's the issue of how they actually use it." Unpaid carer aged 65-79, living away from the person with care and support needs

Another requirement was that it must be easy to choose. Participating unpaid carers needed help in deciding what was the best option, especially those who were less digitally confident. Those with family members who could provide support with digital technology assumed they would help by searching online. Support groups were mentioned as another source of advice. An approved list of technology and suppliers was requested, along with ratings and reviews from users.

Many unpaid carers wanted help to make the case for digital technology to the person they cared for, to be able to present the benefits clearly and convincingly. This was felt to be important, particularly where the person with care needs had been reluctant to adopt something new.

Fundamentally, communication was considered key. Participating unpaid carers explained that they needed to be informed about what was available and to be convinced that it would help. It was felt that digital care technology needed more promotion. Promotion suggestions were:

- a monthly newsletter for carers
- a monthly email from the local authority to all registered carers
- communication from the GP to everyone registered as vulnerable with the GP
- better informed care staff and social workers who pass on information
- a care technology week on television, like Carers' Week, advertising new devices and getting professionals to talk about them

Finally, the technology must be affordable. Although some assumed it would be provided by social services or through benefits, others thought they would be purchasing it themselves.

"Number one is affordability. Like I said, a year ago I went and bought a brand new laptop. Now not everybody's got £400 to spare to do that. If you're a carer you're on £67 a week, which is £3,400 a year. So, there's the financial aspect." Unpaid carer aged 65-79, living away from person with care and support needs

9 Care providers

Chapter summary

The use of digital technology is widespread among care providers, with most of those surveyed using at least some digital systems for managing information, almost all having access to the internet and most using video calling platforms. However, the level of use and digital expertise varies, with a small minority using advanced technology (virtual reality applications, sensory digital technology etc.) and most care providers classifying their level of digital expertise as developing.

The pandemic has led to an increase in the use of technology, but mainly of video calling platforms; few involved in this study have adopted other types of technology during this time, though use of existing systems has increased.

The types of technology used and the way they are used varies by type of provider, with care homes being more likely to use support and monitoring technology to support the delivery of care, and homecare providers being more likely to use business and management technology such as care rostering, care planning, and systems for electronic medicine management. This reflects partly the nature and setting of the care and support they provide.

Technology was felt to bring benefits in terms of staff productivity, efficiency, quality of care, flexibility and communication. There were mixed views on the financial benefits of digital technology with the main benefits being seen in the medium to long-term, and about a third of care providers viewing the benefits as not financial.

The main perceived barriers to the use of technology are:

- **Finance and cost:** Many care providers have limited finances, and so any expenditure needs to have a clear purpose and benefit. For some, it was unclear what the overall costs of technology would be and what the benefits would be. This made it difficult to justify investment in technology where there are other priorities.
- **Awareness and knowledge:** Lack of awareness and knowledge about the technology available, and how their business could benefit from it, was common among care providers. The vast array of options and technological solutions on offer was considered by many as overwhelming.
- **The care workforce:** There was a perception that the introduction of technology would face resistance from some registered managers and frontline staff. They attributed this to staff members' low confidence with technology,¹⁰¹ and to the changing of processes and ways of working.
- **Commissioning and inspection:** Many care providers were also unsure what expectations the local authorities that commissioned them held about the use of digital technology and commissioning and procurement practices could impede the ability to purchase technology solutions that were not part of the traditional offer for local authority funded care. There was also a

¹⁰¹ It should be noted that this differs from how the social care workforce rated their own levels of digital confidence in the workforce survey, with 57% being defined as having 'intermediate' or 'secure' confidence undertaking digital tasks. However, 27% of the workforce were found to have 'pre-novice' levels of confidence and 60% lacked confidence with at least some tasks.

suggestion that CQC inspectors could sometimes be inconsistent in their approach to digital records.

The areas of support identified by care providers to overcome these barriers were:

- greater availability of funding
- upskilling of the workforce
- help to understand the different technologies available
- support to review investment in digital technology and with developing a business case
- advisory or consultancy help to decide what should be implemented
- help to improve digital infrastructure
- help to improve project management change management processes.

This chapter examines how the care providers we consulted are currently using technology; how this technology has impacted them, their staff and the people they care for; barriers to accessing technology and how these can be overcome; the impact of COVID-19 on the use of technology; and plans for future use of technology. The findings in this chapter are based on telephone survey interviews with 608 CQC registered care providers and depth interviews with 25 care providers, which were carried out during May and June 2021.¹⁰²

9.1 Care provider profile

9.1.1 Telephone survey

The sample for the survey was designed to be representative of registered care providers in England. The type of care provider included in the survey, and the care services they offer, are therefore reflective of the care providers registered with the Care Quality Commission (CQC).

Table 9.1: The profile of care providers who took part in the survey by type of provision

Care provider type	Percentage
Homecare services	51%
Care home services without nursing	38%
Care home services with nursing	16%
Supported living services	14%
Day care services	7%
Extra care housing	2%
Shared Lives	2%

Some providers offered multiple types of provision so figures sum to more than 100%.

¹⁰² This chapter combines survey and qualitative findings. Survey findings can be identified by the use of percentages in discussion of the findings.

More details about the sampling, quotas and weighting approach can be found in the appendices.

Care providers whose main service is a care home, homecare service, supported living or extra care housing were asked how many settings or schemes they manage in England. Just under three-quarters of these care providers (73%) managed one care setting or scheme.

The majority of care providers (85%) provided services for people aged 65 and over, with a similar proportion providing services for people with a dementia diagnosis (86%) and those without a dementia diagnosis (80%). Around two-thirds (62%), provided care services for working age people (18-64 years old). Care providers who cared for those of working age offer care services for the following:

- people with a learning disability (71%)
- people with a mental health condition (71%)
- people with a physical disability (71%)
- people with a sensory impairment (58%).

Around a third of survey participants were a chief executive or managing director (30%), with two fifths (41%) working as registered managers or assistant registered managers.

9.1.2 Care provider profile: depth interviews

In total, 25 care providers took part in the depth interviews. Care providers were recruited to ensure a range of views across care service type, the number of settings managed and regions in England. This included care homes with and without nursing, homecare providers, those who provide extra care housing, shared lives and supported living services (a detailed breakdown of the number of participants by care service type can be found in the appendices).

Across the interviews, 13 care providers offered care services in one location and 12 provided care services in two or more locations. The sample included care providers located across England.

9.2 Access to and use of digital technology

9.2.1 Information storage and ICT equipment

Information storage

Care providers in the survey were asked whether information in their organisation tends to be stored and managed using paper systems, digital systems (such as on a computer or tablet), or both.

Most care providers (69%) used a dual approach of digital and paper systems to store and manage information. A quarter (26%) used mainly digital systems, and 5% continued to rely mainly on paper-based systems for managing information.

Homecare providers were more likely to use digital information systems, while care homes were more likely to use paper-based systems. Organisations offering homecare were more likely to have opted for mainly digital information management systems than care home providers (31%, compared with 20%). Those who defined themselves as expert in regard to digital maturity (52%) and users of advanced technology (39%) were the groups most likely to use mainly digital systems.¹⁰³ By contrast,

¹⁰³ The concept of digital maturity is explored in more detail in the next section.

care home providers were more likely to continue to store information using mainly paper based systems (8%). Among those who described themselves as digital novices, 14% continued to use mainly paper systems compared with 2% of those describing themselves as digital experts. However, it is notable that the majority of those describing themselves as novices used a combination of digital and paper systems (75%).

A mix of paper and digital systems were reported by most participants in the qualitative research. Care providers had retained some paper systems, as there was still some caution around the use of technology to support business management and care delivery. For example, one participant commented that they initially had issues with the care management system and still kept a paper version as a precaution.

“We have it and it works well, but at first there were issues, I still have notes of who is where just in case we have any other problems.” Homecare provider

A few smaller providers in the qualitative research were also using only pen and paper for care management.

9.2.2 ICT equipment and internet connectivity

Almost all care providers in the survey had access to the internet (99%) and used either a desktop PC (91%) or a laptop (91%). The majority (77%) also stated they had access to or used a mobile tablet, in their organisation. The same proportion (77%) also had access to a smartphone. These findings are in line with results from the workforce survey [where 96% of participants reported having access to the internet and most use a smartphone at work \(70%\)](#). However, there is a difference in the reported use of Laptops or PCs with just over half of the workforce stating they used a Laptop or PC (56%) compared with 90% of care providers who said they use these devices. This is likely to reflect the more senior, office-based roles of the care providers interviewed.

Although almost all settings had access to the internet and a desktop or laptop, the data highlights variations in access to or use of mobile tablets and smartphones, specifically by provider type and size of organisation:

Over nine in ten (93%) care homes have a tablet available for use. However, far fewer homecare providers (65%), supported living (63%)¹⁰⁴ or housing with care (68%)¹⁰⁵ services had access to a tablet. Instead, homecare and housing with care services were more likely to use smartphones (92% of homecare providers and 78% of housing with care services, compared with 62% of care homes).¹⁰⁶

The majority of homecare providers in the survey had a reliable mobile connection. Care providers offering homecare who used business management or care technology were asked about whether they could connect to the internet using a reliable mobile connection (e.g., 4G or 5G). Among these, 85% reported access to a reliable connection. Those who used mainly digital systems for information storage and management were more likely to report access to a reliable connection (95%) than those using both paper and digital (81%). Homecare providers which considered themselves digitally expert were most likely to have access to a reliable mobile connection (92%).

¹⁰⁴ Caution small base size (39)

¹⁰⁵ Caution small base size (45)

¹⁰⁶ This may reflect the fact that smartphones are more suitable for remote working where care staff are required to move location, owing to their size and connectivity.

The qualitative research highlights how the extent of care provider use and access to digital equipment and internet connectivity varied depending on four factors:

- **Size of provider:** Participants from smaller care home providers with one care setting suggested their internet connection could be unreliable or was only available in the main office rather than throughout the care home. This meant they were more likely to use pen and paper for care plans and medication records as Wi-Fi wasn't available throughout the building.
- **Location and the built environment:** Care providers in rural areas also commented that they found their internet connection to be slow and at times unreliable. Those running care homes located in old buildings also found their internet could be unreliable or only work in certain rooms because the structure of the building was not suitable for Wi-Fi. [Findings from the workforce survey also highlighted issues with connectivity.](#)
- **Job role:** In a minority of cases, only certain staff had access to hardware such as desktop computers, laptops and smartphones. People with access to this equipment tended to be senior managers and those working in the main office.
- **Provider type:** Use of mobile technology such as 4G or 5G dongles to support connectivity when care workers visited people in their own home was common among homecare providers, though some providers asked care workers to use their own personal mobile phone and data plan to stay in contact with the head office when on visits.

9.2.3 Using technology in the day-to-day management of the business

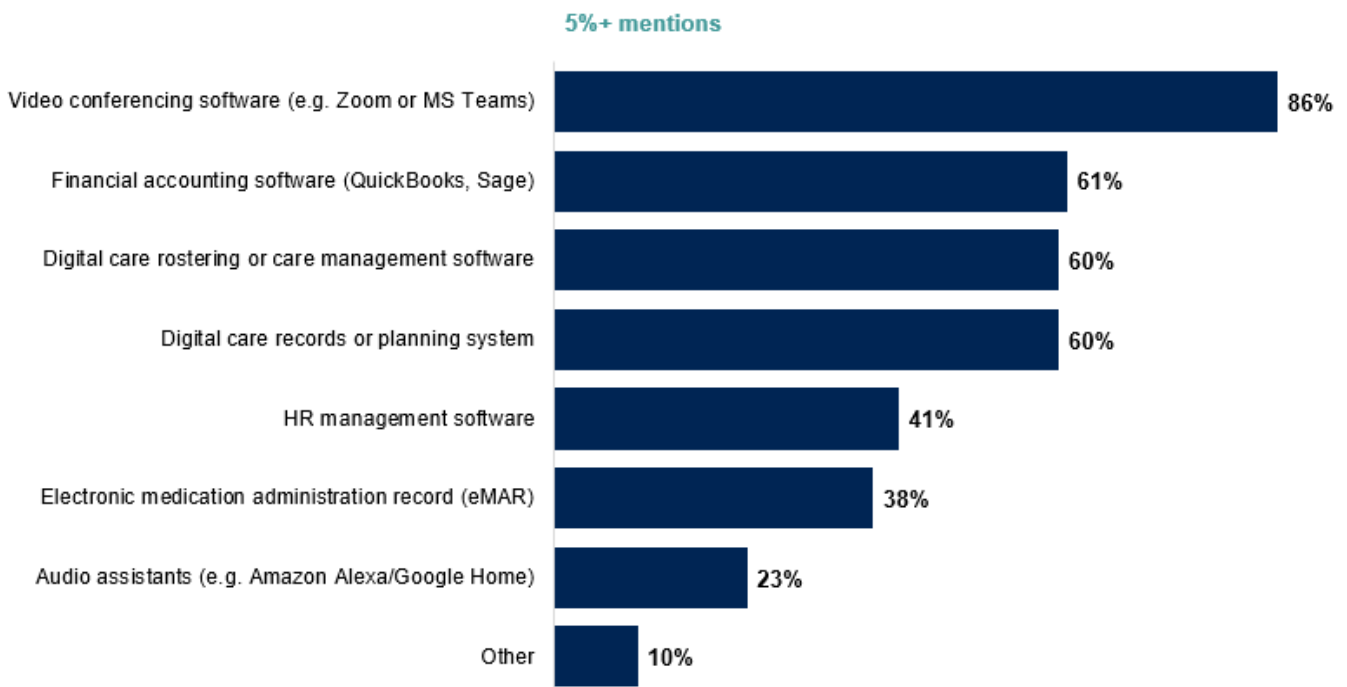
Care providers were asked to consider what types of technology were used to support their organisation's business and day-to-day management activities.

Around two-thirds of care providers in the survey used technology to support business management. Financial accounting software packages were in common use, mentioned by 61% of care providers, while 60% were using digital care rostering or management software.

The majority of care providers used video calling platforms. Figure 9.1 highlights how video calling platforms were used by most care providers (86%)¹⁰⁷ in the survey.

¹⁰⁷ The impact of the pandemic on use of technology, particularly communications technology is discussed further in [section 9.6](#).

Figure 9.1: Technology used by care providers to support business and day-to-day management activities



Base: All participants (608)

TECH_BUSMAN. Thinking about your organisation and the MAIN_SERVICE it provides, which of the following technology, if any, is used to support its business and day to day management activities?

Overall, one in twenty care providers (4%) were not using technology to support the day-to-day management of their business, increasing to 6% of those settings that consider themselves as novices in relation to digital maturity.

The types of technology adopted to support business and management activities varied by the type of services provided and the size of the provider. Overall, those providing homecare were more likely to be using business support and care management systems than care home settings (89%, compared with 79%).¹⁰⁸ The greater use by homecare providers was found across a range of technology types:

- financial accounting software: 66% of homecare providers vs. 55% of care homes
- digital care rostering or management software: 76% of homecare providers vs. 45% of care homes
- digital care records or planning: 70% of homecare providers vs. 51% of care homes
- eMAR: 53% of homecare providers vs. 25% of care homes.

Audio assistants were the only type of business or management support technology being used more widely by care home settings, than homecare providers (34%, compared with 12%).

¹⁰⁸ The greater use of technology to support business and management activities by homecare providers may be reflective of the nature of the service they provide. As most care staff work remotely there may be a greater need for technology which can join managers, staff and those who receive care together in order to manage care and performance.

In general, care providers with 50 or more employees were more likely to be using technology to support business and management activities (90%), than smaller organisations (81%). The use of these types of systems were also reported in the qualitative interviews.

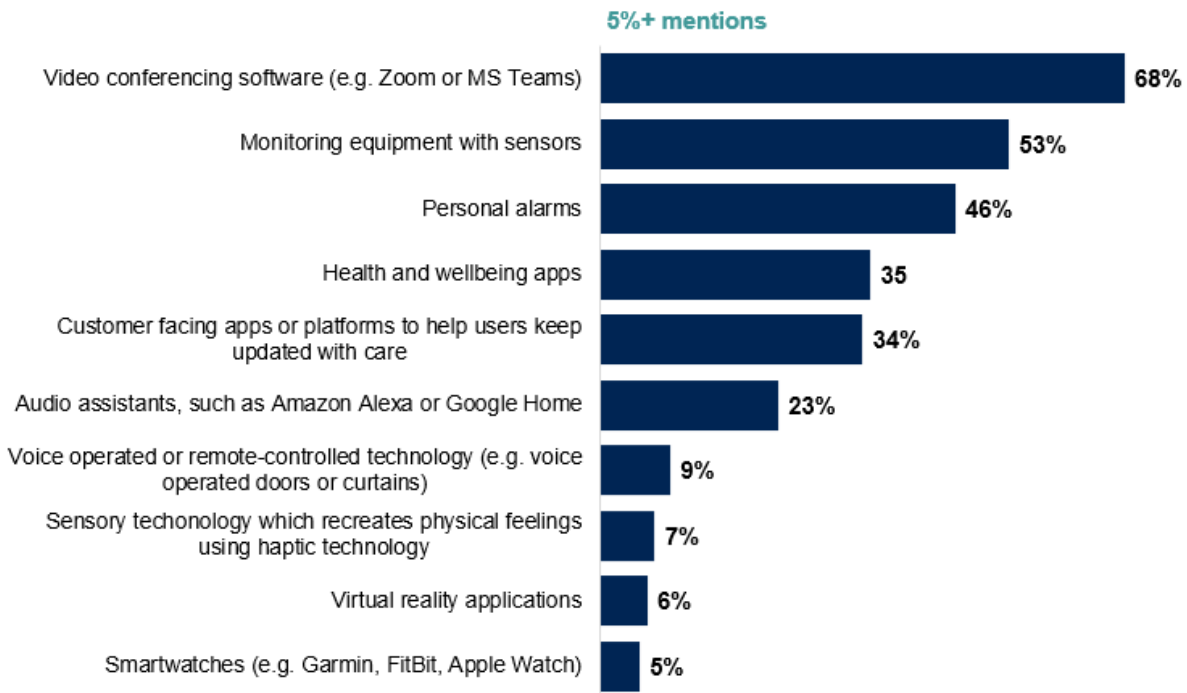
“Our back office is almost fully digitised, and systems are interoperable, and we use Microsoft, its platforms and Teams to support remote working.” Homecare provider

Although the implementation of these platforms was not always straightforward, they were generally seen as improving the way providers operated. However, one participant had scrapped their rostering and planning system after it led to an unsustainable increase in their workload, and returned to using their old system.

9.2.4 Using technology to support the delivery of care

Video calling platforms were the most common form of technology used to support the delivery of care, with two-thirds of care providers in the survey using it for this purpose. Around half had monitoring equipment with sensors in place or used personal alarms.

Figure 9.2: Technology used by care providers to support the delivery of care



Base: All participants (608)
 TECH_CARE. Thinking about your organisation and the main service it provides, which of the following technology, if any, is used to support the delivery of care?

Care home providers were more likely to use technology to support the delivery of care. While homecare providers were more likely to be using technology to support the day-to-day running of the business, care home providers were more likely to have adopted technology to support the delivery of care, specifically:

- monitoring equipment with sensors: 67% of care homes vs. 40% of homecare providers.
- audio assistants: 32% of care homes vs. 15% of homecare providers.
- video calling platforms: 74% of care homes vs. 61% of homecare providers.

However, organisations providing homecare were more likely to be using customer facing apps or platforms to help users keep up to date with the care they or family members were receiving (42%, compared with 27% of care home providers, 22% of supported living providers¹⁰⁹ and 22% of housing with care providers).

Overall, one in ten care providers (10%) were not using any of the technology listed to support the delivery of care. This increased to 13% of homecare providers and settings employing fewer than 50 staff¹¹⁰. The figure was also higher among organisations which offered care and support only to adults who do not fund their own care (15%). The difference between smaller and larger care providers may be related to the perception among small care providers that the implementation of new technology, software and processes can be time consuming and difficult, particularly in organisations with limited specialist resource and capacity (see [section 9.5](#)).

The qualitative research also showed that the type of support and monitoring systems used by care providers varied considerably depending on the type of settings they specialised in. Those specialising in supported and residential living tended to use alarms and cords to alert support staff, alarmed doors linked to 24/7 security services and analogue or digital monitoring systems. Care homes also used similar technology but focused more on technology to alert them to falls, for example, mats or sensors placed in a person's bedroom or bathroom.

Homecare, supported, and residential living providers who took part in the qualitative research were less likely to say they used technology to support the delivery of care but explained that some of the people they cared for were using sensors to monitor falls or personal alarms, which were purchased by their family or the local authority.

“We have a few people who have sensors to monitor for seizures and things like that but that was given to them by the local authority, it isn't something we offer.” Supported living provider

9.2.5 Using advanced technology

Overall, 11% of care providers were using advanced or other technology such as virtual reality applications (6%), sensory (7%) or robotic technology (1% in the delivery of care). The qualitative interviews showed that advanced technology was predominantly used to support the wellbeing of people with care and support needs. For example, one participant mentioned they used virtual reality headsets while another used an interactive 'magic table' where people with care needs could interact with moving objects.

9.3 Digital maturity of care providers

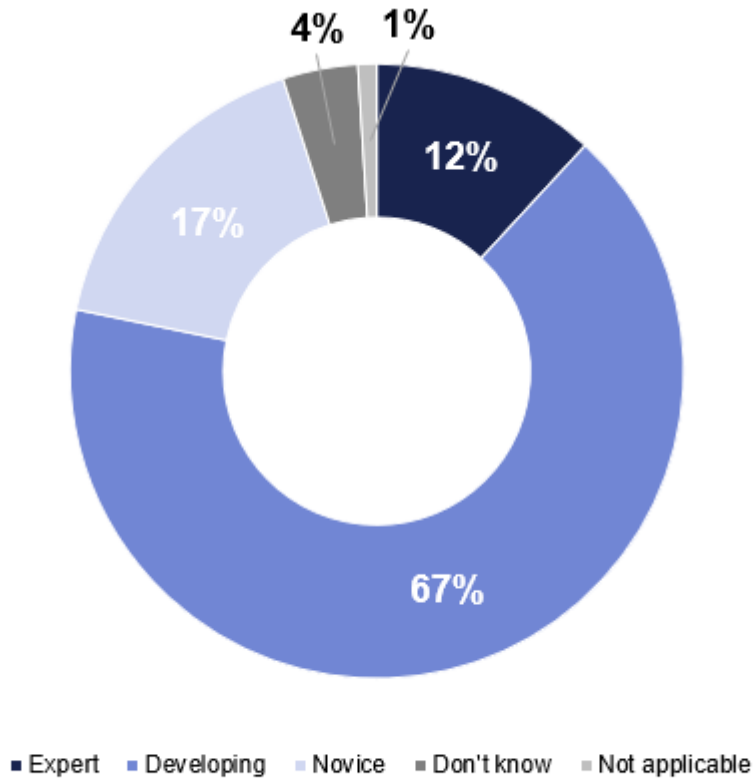
9.3.1 Perceived digital maturity

Two-thirds of care providers in the survey defined their digital maturity as developing. While a range of technology is used to support the business and delivery of care, very few care providers (12%) perceived their organisation as expert regarding digital maturity.

¹⁰⁹ Caution small base size (39)

¹¹⁰ Caution small base size (45)

Figure 9.3: Self-assessed digitally maturity of care providers



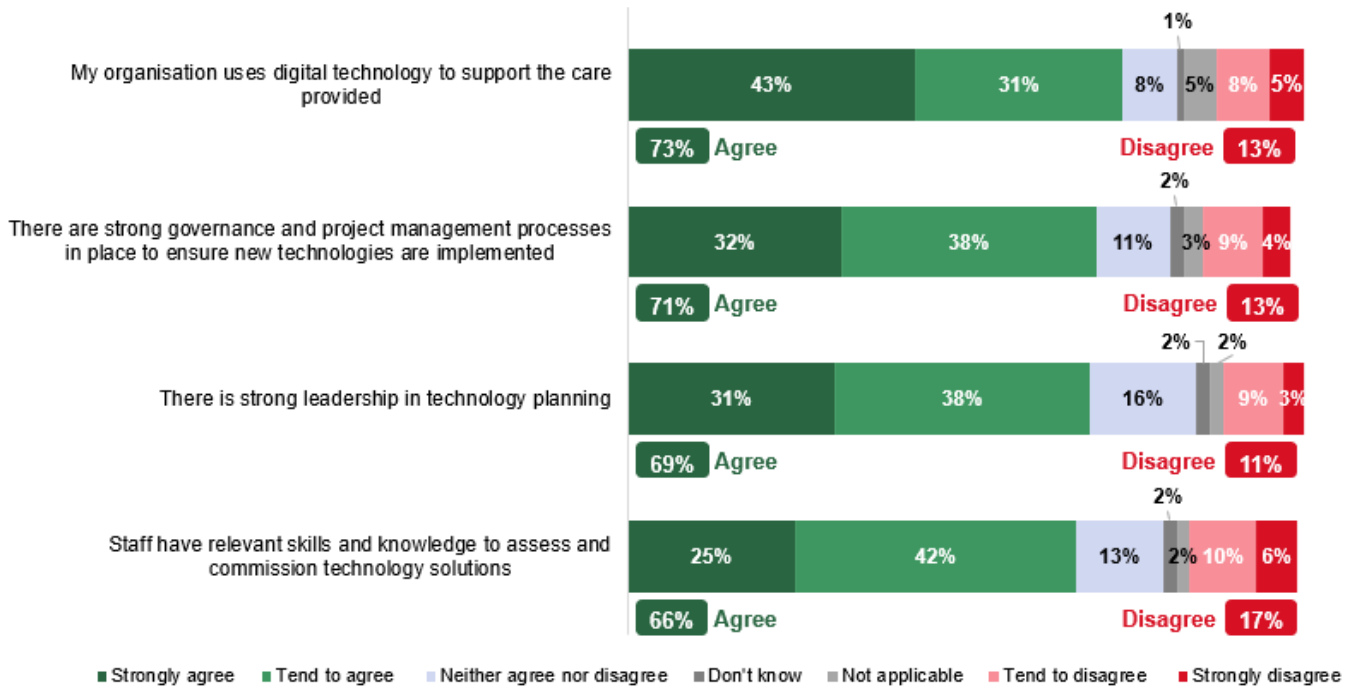
Base: All participants (608)

DIG_MAT_SUM. Thinking about your organisation, how digitally mature would you say it is? By digitally mature, we mean how able your organisation is to adopt, implement and manage new technology.

Homecare providers were more likely than care home providers to consider themselves expert (16% and 7% respectively). Those already using digital information management systems (24%) were also more likely to consider themselves expert. In contrast, the providers most likely to consider themselves novice were care home providers (23%) and those employing fewer than 50 staff members (20%).

Most care providers agreed their organisation uses digital technology to support the care they provide. The survey further explored perceptions of digital maturity using a range of statements, shown in Figure 9.4. Overall, three-quarters of care providers (73%) agree their organisation used digital technology to support the care they provide.

Figure 9.4: Aspects of digital maturity for care providers

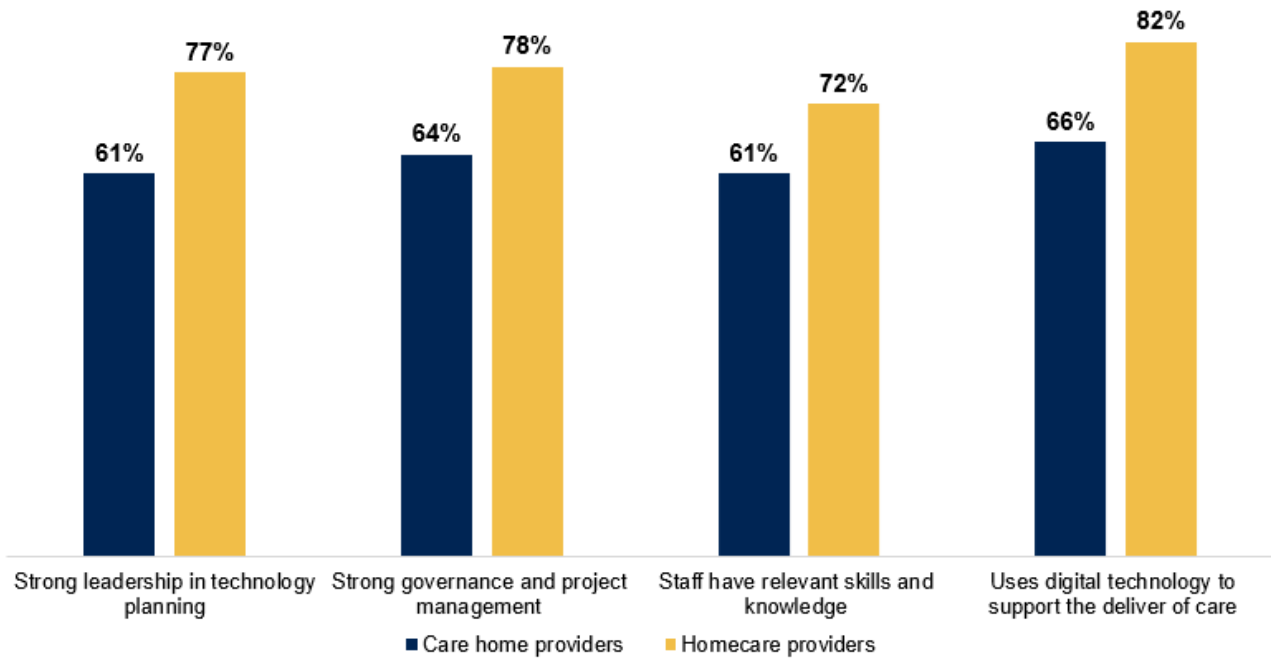


Base: All participants (608)

DIG_MAT_USE. Thinking about your organisation, to what extent do you agree or disagree with each of the following statements?

Homecare providers were more likely to feel their organisation was well placed to implement and manage technology. A clear pattern emerged across most statements with homecare providers more likely to express confidence in the implementation and management of technology than organisations providing care homes:

Figure 9.5: Comparison of digital maturity for homecare and care home providers



Base: All participants (608)

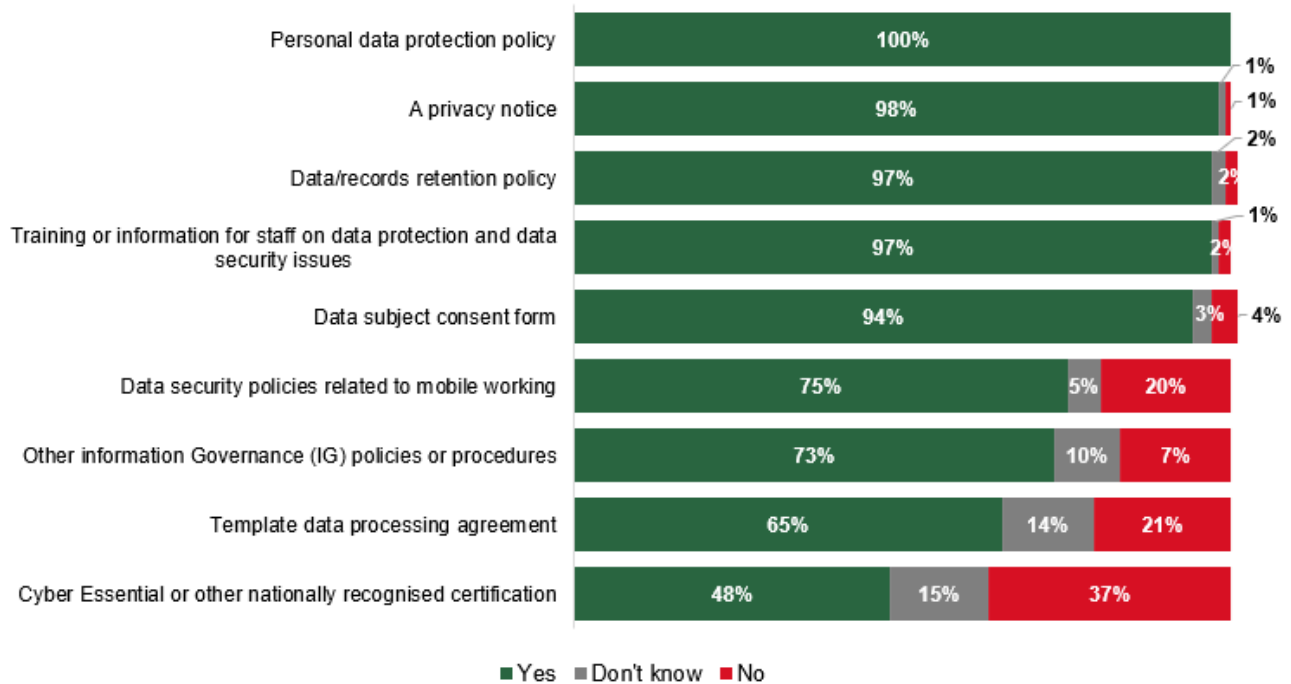
DIG_MAT_USE. Thinking about your organisation, to what extent do you agree or disagree with each of the following statements?

9.3.2 Information governance

Figure 9.6 details the policies and procedures that organisations have in place to manage information held digitally.

As highlighted in the chart, all care providers in the survey (100%) held a personal data protection policy. The vast majority had in place a privacy notice (98%), a data retention policy (97%), and data subject consent forms (94%). However, while three-quarters of settings (75%) had a data security policy in place for mobile working, 20% did not.

Less common were template data processing agreements; 65% had them in place but 21% did not. Moreover, just under half (48%) of organisations held Cyber Essentials (or equivalent certification). Other forms of information governance policies or procedures were held by 73% of providers.

Figure 9.6: Data governance policies and procedures in place in the organisation

Base: All participants (608)

DIG_MAT_POL_ Does your organisation have any of the following policies or procedures in place?

Care home providers were less likely than other types of providers to have a template data processing agreement. Policies or procedures relating to information governance were largely uniform in their presence across the different types of providers. However, there were notable exceptions:

- A quarter of care home providers (26%) did not have a template data processing agreement in place, compared with just 17% of homecare providers.
- Moreover, reflecting on their way of working, care home providers were less likely to have in place data security policies relating to mobile working; 38% said 'no', compared with 4% of homecare providers.

Care providers who regard themselves as novices in terms of digital maturity were also less likely to have information governance policies and procedures in place.

9.3.3 Training for staff on data protection and security

Data protection and data security training was common across all care providers. Encouragingly, training for staff on data protection and data security issues took place in almost all organisations (97%), regardless of service provided, number of settings and age of those receiving care.

9.3.4 Internal IT systems and staff

The survey explored further issues with organisations who perceive themselves as expert in regard to digital maturity. It should be noted that only 70 settings that took part were defined in this way, so the findings should be considered as indicative only.

Two-thirds (66%) of care providers who perceived their organisation as expert¹¹¹ used their own internal apps or digital platforms. This was consistent across all service provider types.

To support this, just over half (55%) employed people, either on a permanent or temporary basis, in an IT systems management role. However, only a minority of these care providers employed people working in data analytics (35%), business intelligence and insight (34%) or software or app development (24%). Across the whole sample in the survey, this would indicate around one in twenty care providers employed people working in an IT systems management role (7%), or in data analytics (5%), business intelligence and insight (5%) and software or app development (4%).

9.4 Impact and outcomes of different types of technology

9.4.1 Impacts on communication and ways of working

Care providers were asked in the qualitative interviews to describe the impacts of consumer technology or apps. Most focused on video calling platforms in their answers. Overall, participants felt this technology had a positive impact on their organisation, with the following four benefits:

- it improved communication between staff and enabled information to flow quicker which led to improved productivity.
- it allowed meetings to be held in a more flexible and convenient way meaning that the right people could attend the meetings they were invited to.
- it allowed both staff and the people they cared for to keep in contact with the outside world over the past year and this played an important part in maintaining morale among care workers, but also generally within care homes.
- it allowed health and social care services to deliver the care needed through online consultations and assessments.

The support provided by technology suppliers to facilitate the adoption of technology was instrumental: during the pandemic care providers were adopting technology which they had not previously used and needed to learn how to use it quickly. Participants commented on the importance and benefits of the training provided.

“We weren’t familiar with it, they [Microsoft] showed us how to schedule meetings and got everything up and running. It’s made a difference in the safety of the people we care for and means the team could stay connected.” Homecare provider

¹¹¹ Caution small base size (70).

9.4.2 Impacts on staff

Overall, all three types of technology: consumer, business and support and monitoring, were regarded by care providers as having a positive impact on staff. The greatest impact on staff productivity was reported from business support and management technology (84%), while the greatest impact on staff time to deliver care was reported from support and monitoring technology (74%). Table 9.2 outlines the impact on staff across the different types of technology included in the research.

Table 9.2: Impact of technology on staff

	Types of technology used by care providers					
	Consumer technology and apps (553)		Business support or care management (500)		Support and monitoring technology (448)	
	Agree	Disagree	Agree	Disagree	Agree	Disagree
Improved staff productivity	80%	10%	84%	8%	75%	8%
Enabled staff to spend more time delivering care	66%	20%	71%	15%	74%	11%

However, it should be noted there were some differences among care providers. For example:

- **Digitally novice care providers:** Care providers who defined themselves as novices in regard to digital maturity were more likely to disagree that consumer technology and apps allowed staff to spend more time on the delivery of care (30%) and to disagree that technology improved staff productivity (24%).
- **Homecare providers:** Homecare providers were more likely to see the benefit of business support or care management systems in terms of improving staff productivity (90%) and enabling staff to spend more time delivering care (77%), than care providers overall.

Participants in the qualitative interviews also described the impact on staff productivity associated with these types of systems. Using care management software staff were able to access care plans from any location and could make updates based on the latest information as soon as it was received from a colleague, GP, or the hospital. This was described as more efficient than paper records. For homecare providers, using a digital care management system meant less travel to check paper records. The time saved could be used on other tasks and to spend more time caring for the person in their home.

From the perspective of managers in the qualitative research, the ability for staff to digitally ‘clock in and clock out’ was also useful for keeping track of the time spent caring for people and meant they could reallocate jobs between care workers more easily.

“It’s good because they tag in when they arrive, and if they are delayed, we can look at who is available and move people around, it helps with managing workloads.” Homecare provider

9.4.3 Impact on the delivery of care

All three types of technology were felt to have a positive impact on the delivery of care, but the greatest benefits were reported for support and monitoring technology. For instance, 85% of survey participants agreed it improved the quality of care delivered and 83% agreed it had a positive impact on the health outcomes or wellbeing of the people they cared for.

Table 9.3: Impact of technology on the delivery of care

	Types of technology used by care providers					
	Consumer technology and apps (553)		Business support or care management (500)		Support and monitoring technology (448)	
	Agree	Disagree	Agree	Disagree	Agree	Disagree
Improved the quality of care delivered	74%	13%	77%	10%	85%	3%
Improved the health outcomes or wellbeing	74%	12%	71%	11%	83%	4%
Improved access to or choice of care	63%	16%	61%	17%	66%	10%

As highlighted in Table 9.3, care providers were less clear about the impact technology had on improving access to or choice of care. While 61%-66% agreed that these types of technology had an impact on improving access to or choice of care, about a quarter said they were unsure. For example, 25% said they were unsure about the impact of support and monitoring technology, and 23% were unsure about the impacts of consumer technology and apps on access to or choice of care.

Digitally novice care providers were more likely to say that technology did not have an impact on the delivery of care. Care providers who consider themselves to be novices in regard to digital maturity were more likely than expert or developing providers to disagree that consumer technology and apps improved the quality of care (21%) and to disagree that it has improved the health outcomes of people using their services (19% disagree). Novice care providers were also more likely to disagree that business support or care management systems had led to improved quality of care (18%), improved health or wellbeing outcomes (19%) or improved access to or choice in care (26%).

In the qualitative interviews participants also described how technology benefits the quality of care delivered to people with care needs. Care management systems helped care providers keep up to date with changes on policies and procedures throughout the pandemic, including risk assessments which helped ensure they were delivering care which was in line with best practice. Qualitative participants working in homecare thought that being able to view care plans, risk assessments and details about a person's care remotely led to better care as staff could assess the person's needs before arriving at their home to provide the care.

Care management systems were also believed to improve the accuracy of information as care plans could be updated as soon as something changed, or as soon as care providers received a notification. This reduced the likelihood of changes being missed or paperwork going missing and helped provide evidence for CQC inspections.

“It allows staff to flag tasks that need to be done and has led to more accurate recording of data which has been helpful for CQC inspections.” Care home provider

The qualitative research showed that the benefits of support and monitoring technology for staff, providers and people with care and support needs were intertwined.

Participants felt it improved:

- **Staff working practices:** Monitoring technology such as sensors were used to alert staff to falls or other incidents which required their attention. This meant people got help quicker than they would without the technology.
- **Prevention and improved health outcomes:** Monitoring technology which tracked heart rate, breathing and movement was considered useful for identifying people who may be at risk of falling or may require further care and support. This technology allowed care providers to identify early warning signs and intervene earlier.

“It makes it easier to monitor fluid intake and other things so can impact positively on the health of residents...it means you get instantly the info you need, so we’re quicker at identifying issues now.” Care home provider

Although care providers were generally positive about the use of technology to support the delivery of care, participants from smaller care homes felt it had made no real impact and was just an alternative way of working. Participants with this view often emphasised the importance of face-to-face care and that care workers were the main driver of improvements, not monitoring technology.

“Digital technology should not be invasive and personal face-to-face care is essential at all times.” Homecare provider

9.4.4 Impacts on unpaid carers

Care providers also felt technology had a positive impact on unpaid carers. Care providers were asked about the impact the consumer technology and apps and support and monitoring systems had on unpaid carers. As outlined in Table 9.4, 60% felt consumer technology and apps had improved the overall wellbeing of carers and 45% stated it reduced the burden on carers. The majority of care providers agreed that support and monitoring technology improved the overall wellbeing of carers (64%) and reduced the burden of care on unpaid carers (61%).

Table 9.4: Impact of technology on unpaid carers

	Type of technology used by care providers			
	Consumer technology and apps (553)		Support and monitoring technology (448)	
	Agree	Disagree	Agree	Disagree
Improved the overall wellbeing of carers	60%	20%	64%	15%
Reduced the burden of care on carers	45%	31%	61%	21%

Across both types of technology, care home providers and homecare providers differ in their attitudes toward the impact of these technologies:

- 50% of homecare providers agreed that consumer technology and apps reduced the burden on carers vs. 37% of care home providers
- 63% of homecare providers agreed consumer technology and apps improved the wellbeing of carers vs. 53% of homecare providers
- 71% of homecare providers agreed that support and monitoring systems reduced the burden on carers vs 50% of care home providers

9.4.5 Impacts on costs and productivity

The findings in relation to the link between cost and productivity were also similar across the three main types of technology. Providers were most optimistic about recouping the costs of business support and management technology, but the differences were small as outlined in Table 9.5.

Table 9.5: Impact on costs and productivity by type of technology used by care provider

	Type of technology used by care provider		
	Consumer technology and apps (553)	Business and care management (500)	Support and monitoring technology (448)
Initial costs of technology are greater than savings, but in the medium to long term the costs will be recouped through improved productivity.	37%	44%	41%
The use of technology is a cost which is not recouped financially by us but brings other benefits to us	32%	31%	33%
The cost of technology is recouped in improved productivity immediately.	11%	12%	10%
Our use of technology brings financial benefits to other organisations (e.g., NHS or local authority) but not to us	10%	6%	6%
These statements do not describe the relationship between costs and productivity in my organisation	2%	2%	3%
Don't know	8%	6%	7%

Overall, care providers were most likely to say that costs would be recouped through improved productivity in the medium to long-term while a similar proportion did not expect to recoup the financial benefits but regarded it as benefitting their organisation in other ways.

However, there were differences among care providers depending on their digital maturity:

- Care providers who regarded themselves as experts in digital maturity were more likely to believe that the cost of investment in consumer technology and apps would be recouped through improved productivity and greater savings (66% compared with 32% among those who are novices).
- Those who perceived themselves as novices were more likely than average to consider that their use of consumer technology and apps brought benefits to other organisations but not to them (16%). A third of novices (32%) also thought that the use of technology is a cost which is not recouped financially by them but brings other benefits to them – in line with the average.

Comments in the qualitative interviews also demonstrated how the benefits of new systems might only be recouped in the medium to longer term because of the additional work and adjustments needed in the short term. Participants who had recently implemented new business and care management systems acknowledged that adjusting their working practices and getting used to a new way of doing things could be difficult at first, as staff may be unsure on the exact processes to follow.

9.5 Barriers to accessing and using technology

9.5.1 Overall findings from qualitative interviews

Participants in the depth interviews were asked what barriers they faced when accessing and using digital technology. Across the different types of technology discussed four key barriers were highlighted:

- **Finance and costs:** This was the most frequently mentioned barrier. Those citing this as a barrier explained that they were working in organisations where finances were very limited, and any expenditure needed to have a clear purpose and benefit. A compounding factor was that it was not always clear what the overall costs of technology, including staff time to implement it, would be and whether the benefits would be worth it. This made it difficult to justify investment in technology when there were other competing priorities. Technology that generated ongoing costs were particularly problematic, as participants did not know if their business would be able to afford them in the future and switching to a cheaper supplier would most likely be disruptive to their business.
- **Awareness and knowledge:** Lack of awareness and knowledge about the technology available, and how their business could benefit from different technologies, was common among participants. The vast array of options and technological solutions on offer was considered overwhelming by most. Awareness of technology was largely dependent on the owner, manager or a member of staff being engaged and interested in technological solutions. Linked to the barrier of costs, it made it more difficult for care providers to judge which of all the solutions on offer would be most cost effective and would best meet the needs of their business, now and in the future.
- **The care workforce:** There was a perception among a minority of participants in the depth interviews that any introduction of new technology would be faced with resistance from some registered managers and frontline staff. They attributed this resistance to staff members' low

confidence with technology, and to the changing of processes and ways of working which staff would need to get used to.¹¹²

- **Commissioning and inspection:** Participants were also unsure what attitudes and expectations the local authorities that commissioned them held about the adoption and use of digital technology. Similarly, there was a suggestion that some CQC inspectors could be inconsistent in their approach to digital records and the use of technology more generally. For example, one participant was required to print out all of their online records because the inspector asked for paper versions. These uncertainties created a lack of clarity: before adopting new technology, care providers wanted to know if this would help them win more business or achieve better inspection ratings.

Other barriers mentioned by participants were interrelated with the four main barriers listed above. For instance, [concerns were raised about technology replacing face-to-face care, and digital working creating barriers between staff and the people they cared for](#). The small number of providers that flagged up these risks wanted the person cared for to always be the main focus, and they were worried that technology could become a distraction.

“I just feel that digital care in whatever form creates artificial barriers between staff and residents. We would prefer they spend time with people, and they can then write up their notes afterwards in the staff room.” Care home provider

Related to the barriers of finances and costs, small care providers also saw the implementation of new technology, software and processes as time consuming and difficult. They felt the time to work through technical problems and transfer data over would be too great.¹¹³

“Working out how to use it, the problems and transferring data over into the new system is hard work and stops us upgrading the system. I’m aware there are better systems out there, but the hard work stops us.” Homecare provider

Finally, care providers who were already using some digital technology also mentioned the difficulty of finding compatible and interoperable systems which worked well together. Care providers who were or had been tied into using certain systems were less likely to adopt new technology as they did not want to be tied in further.

“It can be hard to find the right system which works with what we’ve already got and has all the things we need for our service. If we’re not happy we don’t want to be tied in, but there are limits because of what we have now.” Care home provider

Where existing systems did not meet needs care providers on occasion developed their own system based around their specific needs, involving their workforce in the design and implementation.

9.5.2 Reasons for not using technology

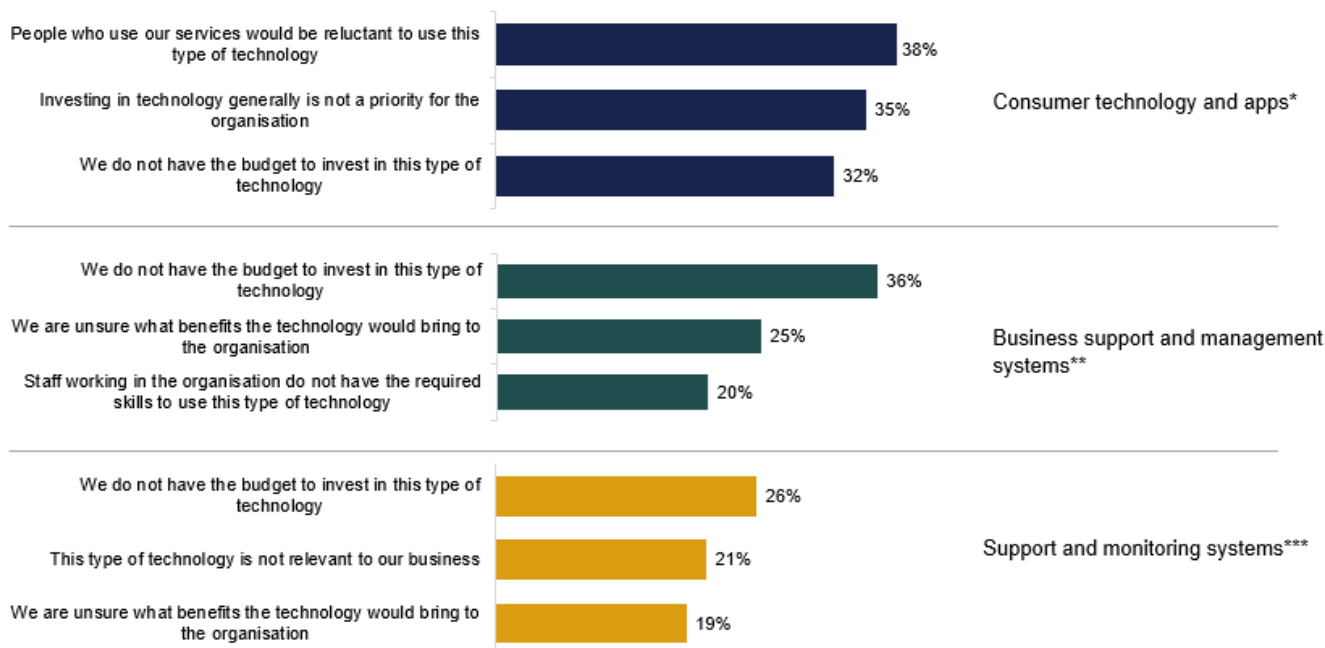
In this section we explore the reasons for not accessing specific technology and the barriers faced identified from the survey responses. The findings are shown in one chart. It is notable that the barriers

¹¹² The perceptions and attitudes of the adult social care workforce are explored further in [section 5.3](#).

¹¹³ This may be one of the reasons why smaller care providers were less likely to be using technology to support business and management activities, as highlighted in [section 9.2](#)

vary by type of technology but ‘budget constraints’ was consistently in the top three barriers for all types of technology.

Figure 9.7: Why technology is not used by some organisations



Base: All participants who do not use consumer technology and apps (40*); All participants who do not use business support and care management systems (78**); All participant who do not use support and monitoring systems (146***)

NOTUSE_CTA. Thinking about consumer technology and apps, why does your organisation not use this type of technology at the moment?

NOTUSE_BUSSUP. Thinking about business and care management technology, why does your organisation not use this type of technology at the moment?

OTUSE_SUPMON. Thinking about support and monitoring technology, why does your organisation not use this type of technology at the moment?

9.5.3 Consumer technology and apps

The most frequently cited reason for not adopting consumer technology was the concern that the end service user would be reluctant to make use of it; mentioned by 38% of care providers.¹¹⁴ However, finance was also an issue for care providers: A third (35%) said that investment in technology is generally not a priority and a similar proportion (32%) simply did not have the budget to invest in consumer technology. Some care providers were also uncertain about benefits that this type of technology would bring to their organisation.¹¹⁵

9.5.4 Business and care management technology

Among those care providers not using business and care management technology, the main reason was a lack of budget (36%). Other issues which contribute included uncertainty about the benefits of business and care management technology to their organisation (25%).¹¹⁶

9.5.5 Support and monitoring technology

The two main reasons for not adopting support and monitoring technology were a lack of budget to invest in this technology (26%) and uncertainty in relation to the benefits (19%). In addition, 21% mentioned that this type of technology was not relevant to their business.

¹¹⁴ Caution small base size of 40 care providers who do not use consumer technology or apps.

¹¹⁵ The proportion of care providers surveyed who were not using consumer technology and apps is too small (n=40) to allow analysis by sub-group.

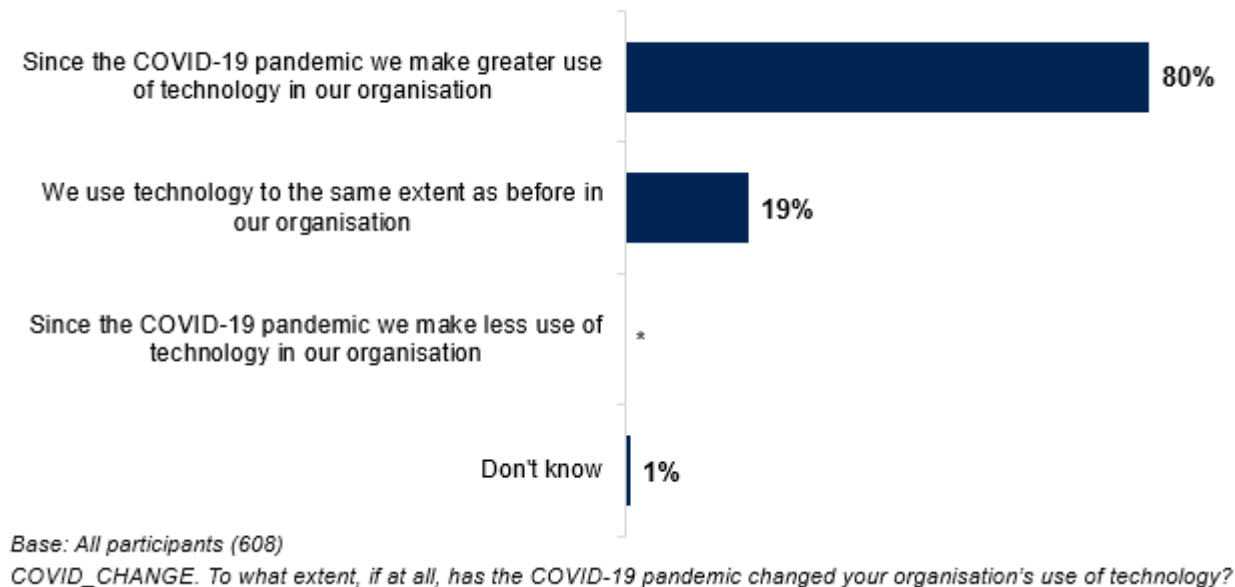
¹¹⁶ The sample of care providers who are not using business and care management technology is too small (n=78) to allow analysis by sub-group.

9.6 Impact of COVID-19 on the use of technology

9.6.1 How technology use has changed since the pandemic

Four in five (80%) care providers reported an increase in their use of technology since the COVID-19 pandemic. One in five (19%) said that their technology use has remained the same, and for just three participants their use decreased in that period.

Figure 9.8: The impact of the COVID-19 pandemic on the use of technology



Those most likely to have experienced an increase in their use of technology since the pandemic started are:

- care home providers (87%)
- organisations offering care for individuals with a learning disability (82%)
- organisations that defined themselves as developing in regard to digital maturity (84%).

Settings offering homecare were more likely to use technology to the same extent as before the pandemic, than other provider types (26%, compared with 19% overall).

9.6.2 Types of technology being used

Video calling platforms

The use of video calling platforms was driving the increase in technology use; with 81% of care providers adopting, it for the first time and 67% making greater use of it as a result of the pandemic.

Care providers reported in the qualitative interviews that they had primarily adopted this technology as a result of the COVID-19 pandemic and subsequent lockdowns. Although there was a movement to more digital ways of working before, the pandemic had accelerated this process.

Care providers explained in the qualitative interviews that they used video software for three main tasks:

- to help the people they care for stay in touch with friends and family

- to help people they care for access healthcare services e.g., check-ups or consultations with their GP
- to support virtual ways of working e.g., hosting meetings and having online conversations with other colleagues,

The use of this technology during the pandemic brought benefits to quality of life and wellbeing for people with care needs and their families, through keeping in touch and making medical appointments less stressful.

Care providers were often using this type of technology on tablets or laptops purchased at the start of the pandemic. Others had accessed mobile tablets via the NHSX iPad offer to care homes, which gifted iPads to care homes throughout the pandemic to help their residents stay connected with their family and friends and attend medical appointments remotely. In some cases local authorities made devices available to services run by them.

Participants in the depth interviews were largely positive about using this technology and found it to be a great help, both for the people they cared for and for business continuity. This also resulted in greater efficiency and productivity, according to care providers.

“We started using Zoom on the iPads when the first lockdown came in. We’ve found them to be really useful, help everyone keep in contact with their loved ones in what has been a really hard time. We’ve also started using things like Zoom for our meetings which was helpful and something we might keep doing in the future maybe.” Care home provider

Other software was also used to help the people supported keep in touch with their family and friends, namely WhatsApp and Facebook, but these were mentioned less frequently.

“We have posted things on our Facebook page so their family and friends can keep up to date, I think that helps people feel connected.” Supported living provider

9.6.3 Other types of technology

The survey showed that care providers were making greater use of the following types of existing technology during the pandemic:

- digital care records or planning system (15%)
- health and wellbeing apps (15%)
- audio assistants (13%)
- customer facing apps (12%)
- rostering software (11%)
- eMAR (12%).

However, very few types of technology other than video calling platforms were used for the first time as a consequence of the pandemic: Those that were used for the first time were customer facing apps which helped users keep up to date with their care (12%) and health and wellbeing apps (also 12%).

Homecare providers were more likely than other types of provider to have adopted digital care rostering or care management software (10%), eMAR (11%) or customer facing apps (14%) during the pandemic. Homecare providers were also more likely than other providers to have increased their use of existing eMAR (17%) during the pandemic.

The qualitative interviews showed that another impact of the pandemic was care providers gaining access to NHSmail. This made communication easier and improved the flow of information between care providers and NHS organisations in their area. Where technology such as audio assistants, magic tables or smart TVs was introduced during the pandemic it improved interaction between staff and people with care and support needs, enriched the lives of residents and enhanced the working lives of staff.

9.6.4 Continuing the use of technology after the pandemic

Looking ahead, almost all care providers (90%) thought their organisation would continue to use technology in the same way as during the pandemic. Just one in twenty (6%) thought their use of technology would change from how it was used during the pandemic. The intention to continue using technology in the same way was largely consistent across different types of care providers.

Most care providers in the depth interviews said they would continue to use technology in the same way post-pandemic. They saw virtual meetings within their organisation and with partner organisations continuing into the future.

“Yes, I think we will keep meeting on Teams like we have been, as it’s so much easier for everyone. We will keep meeting with our local authority like this as it can be difficult to find a place for us all.” Care home provider

Other care providers also said they would continue to deliver some training online as it was more convenient for staff. However, a minority of participants said they would not continue to use technology in the same way and would like to return to a way of working more focused on face-to-face interactions.

9.7 Future use of technology

9.7.1 Likelihood of adopting new technology

Care providers in the depth interviews were asked what type of technology they may consider using in the next five years. For some participants this was too far ahead, and they were more focused on stabilising services post-pandemic.

A minority of smaller care providers were not interested in using technology in the future. This was mainly related to a more passive attitude toward the adoption of technology; they felt they would wait to see what was available and then make a decision if they felt there would be a benefit. For others it was dependent on the attitude of the registered manager, for example, one participant was planning to retire in the next few years and thought their replacement would be better placed to implement technology.

One care home provider was also reluctant to introduce technology as they were not confident in its reliability and were wary of it replacing face-to-face care.

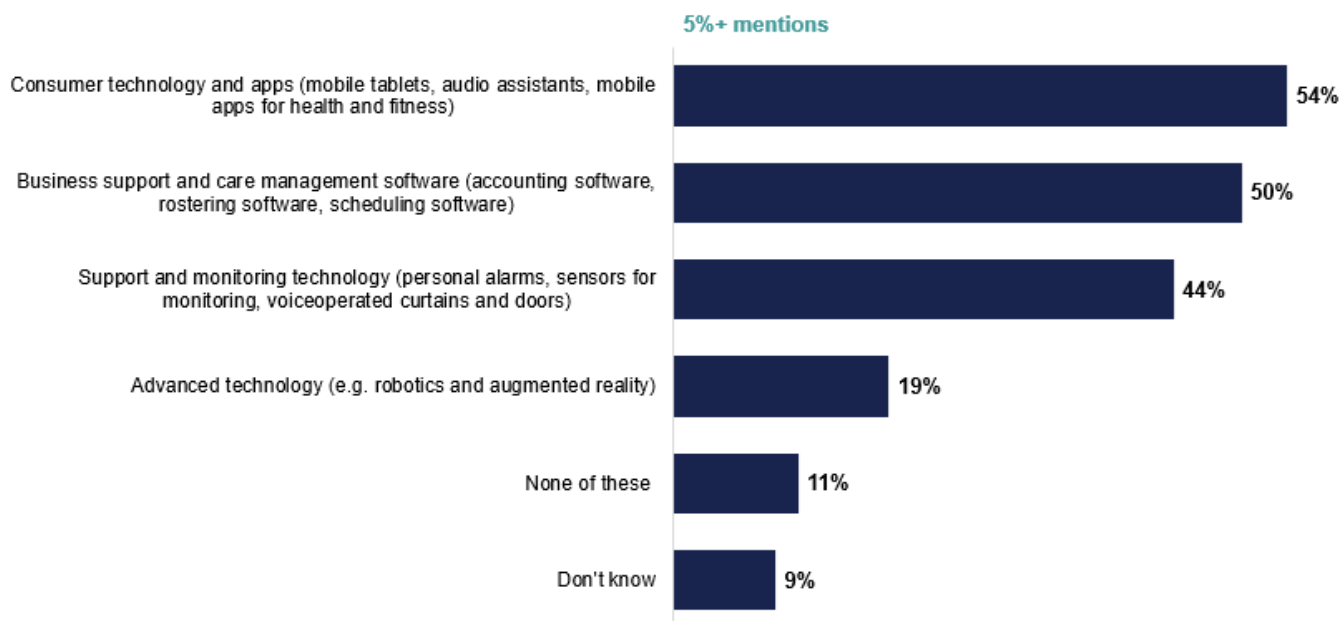
“I’m a bit wary of using technology instead of humans due to failure issues we’ve had. I’ll continue to read things with interest about things being trialled, but technology has to be 100% fool proof to take the place of the hands-on care of a carer and a nurse.” Care home provider

9.7.2 Identifying future technology needs

Survey participants reported that consumer technology is the type of technology most likely to be adopted in the next five years. Just over half (54%) of care providers highlighted they would like to introduce technology from this category to support services delivered. Half (50%) were looking to adopt new business support and care management software in the future.

As shown in Figure 9.9, one in five care providers (19%) were considering implementing advanced technology in the next five years.

Figure 9.9: New types of technology which may be implemented in the next five years to help support the services they deliver



Base: All participants (608)

FUT_TECH. In the next five years what new types of technology, if any, do you think your organisation may implement to help support the services they deliver? Please think about broad types you are not currently using or specific new technologies in these groups which you may implement.

Overall, one in ten care providers (11%) were not considering implementing any of the listed technology in the next five years. Those who defined themselves as novices were more likely to have said this, than those who describe themselves as developing in terms of digital maturity (18% and 9%, respectively). Care home providers were also more likely than homecare providers to report they do not plan to implement new technology in the next five years (15% and 8%, respectively).

Among care providers who identified multiple types of digital technology for use in the future, the priority for the next five years was to implement business support and care management software (40%). A similar proportion (38%) selected support and monitoring technology as their priority and three in ten (31%) mentioned consumer technology. Only one in ten (11%) prioritised advanced technology in the future.

These findings are consistent across key sub-groups.

9.7.3 Benefits of future technology

Overall, care providers saw multiple benefits, to both staff and service users, from the technology they hope to implement over the next five years. Care providers in the depth interviews explained the benefits of their plans for the future, which included:

- **Upgrading hardware and Wi-Fi:** this was expected to improve connectivity and speed up tasks which were time consuming at the moment.
- **Improved or cheaper care management systems:** a minority of participants who already had a care management system were looking into alternative options as they felt the ongoing costs of their current system was too expensive.
- **Purchasing or subscribing to a digital training platform for staff:** the COVID-19 pandemic had demonstrated that it was possible to train staff remotely, and some care providers were exploring online training platforms. They expected that such platforms would help staff complete training at a time and place which best suited them and help managers keep track of participation in training. In the research with the ASC workforce, [they commented on how they benefitted from online training but would like a mix of formats.](#)

Survey participants were also asked about the benefits for specific types of technology.

Care providers suggested that the benefits of consumer technology would include improvements to quality of care delivered (74%), staff productivity (73%) and the health outcomes or wellbeing of people who use care services (70%). Similarly, care providers who were looking to implement business support and care management software or support and monitoring technology also thought they would have a similar impact. For example, 66% of those planning to implement business support and care management software thought it would improve staff productivity and 71% of care providers who may implement support and monitoring technology over the next five years felt it would improve the quality of care for service users.

Care providers were less clear about the future benefits of advanced technology, with just over half (52%) stating that they expected to see a benefit in terms of improving the quality of care for service users and under half (48%) considering implementing it to improve staff productivity or improving the health outcomes of people who use their services (48%).

9.7.4 Users of technology in the future

Those planning to introduce new technology in next five years were asked who the main users would be.

Managerial and administrative staff were most commonly cited as the main users of business support and care management software (83%), with half considering the main users will include staff delivering care (49%). In contrast the most commonly reported main future users of consumer technology and apps are staff delivering care (71%) with 62% reporting that managerial and administrative staff will be among the main users. People with care needs and unpaid carers were also seen as potential users of consumer technology (both 51%).

Staff delivering care (54%) were the most likely main users of support and monitoring technology, but a similar proportion of care providers identified people with care needs as the main users (52%). Care providers were less certain about the main users of advanced technology in the future; 26% simply don't know. However, half (49%) identified staff delivering care as the main users.

9.7.5 Driving future technological change within organisations

The drivers of technological innovation and change in most organisations were senior leaders and managers (77%). However, three in five (60%) care providers said they would be open to suggestions from all people involved in their organisation. Just 24% of care providers said that staff providing care would play a role in deciding on the use of technology in the future. One in five would involve people who receive care (20%) or their carers (19%).

9.7.6 Barriers to implementing digital technology in the future

This report highlights current budget pressures as the main barrier to accessing digital technology now, and the same issue appears to apply for the future. The majority of care providers (57%) cited budget as the main obstacle they will face to future implementation. This is in line with the qualitative interviews with care providers, where the most frequently mentioned barrier was the financial pressures in their organisations and the associated costs of technology.

Figure 9.10: Barriers to implementing technology over the next five years



*Base: All participants (608)
 FUT_BARR. Thinking about implementing digital technology in your organisation over the next five years, what barriers, if any, do you think your organisation will face implementing this technology?*

However, very few organisations faced just a single barrier, with 55% of care providers highlighting three or more barriers. Approaching half (45%) expressed concern about care staff lacking digital skills,¹¹⁷ while over a third (36%) suggested that a reluctance among service users would be an issue.

These barriers were largely consistent across care providers, but those offering homecare were more likely to cite reluctance among service users as an obstacle, than care home providers (43% and 32%, respectively). In contrast, care home providers were more likely to perceive a lack of

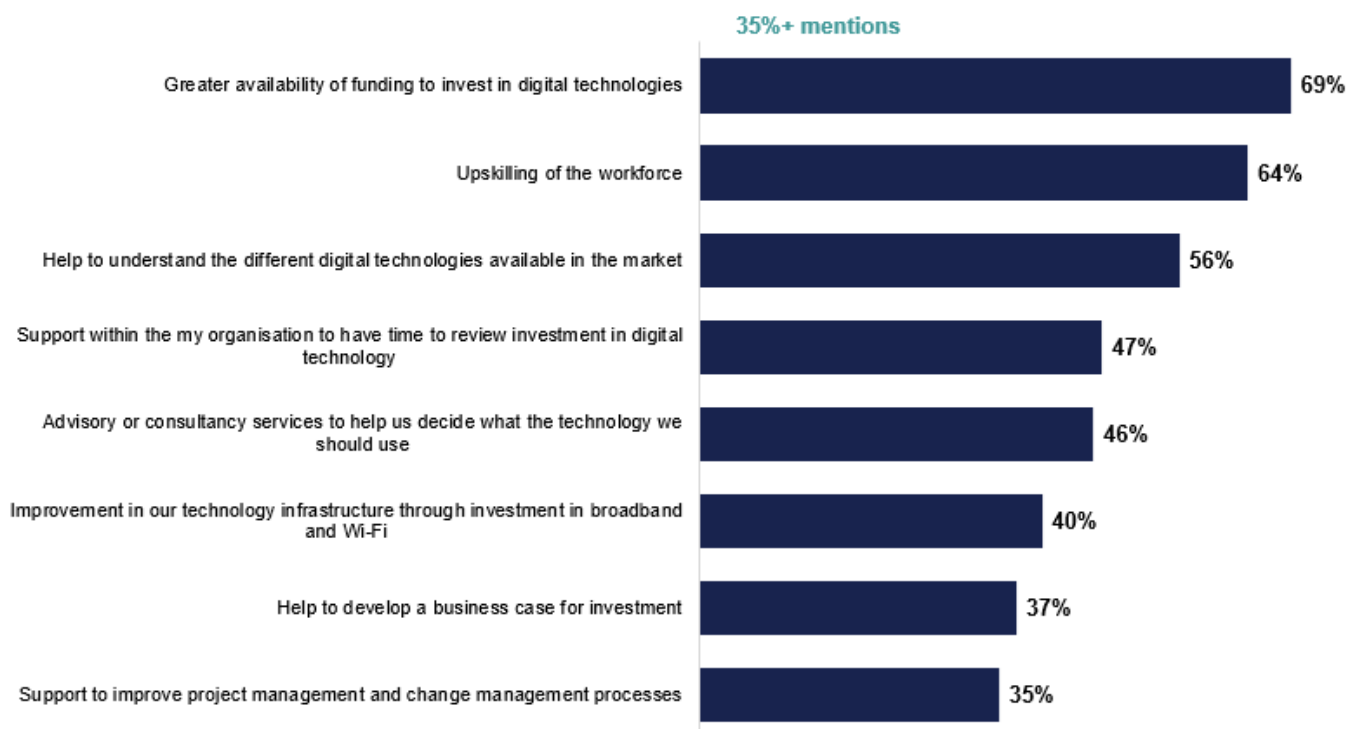
¹¹⁷ It should be noted that this differs from how the social care workforce rated their own levels of digital confidence in the workforce survey with 57% being defined as having ‘intermediate’ or ‘secure’ confidence undertaking digital tasks. However, 60% also reported low confidence with at least some digital tasks. See [section 5.2](#).

digital skills amongst staff as a barrier to future implementation (51%, compared with 40% of homecare providers).

9.7.7 Support needed to implement digital technology in the future

Support measures required to implement digital technology mirrored the barriers identified; with greater availability of funding a priority (69%), closely followed by upskilling of the workforce (64%). However, there is a need to address the lack of awareness of digital technology, with 56% of care providers calling for help to understand the different technologies available.

Figure 9.11: Support needed to overcome barriers to implementing digital technology



Base: All participants (608)

FUT_SUPP. What support do you think you will need to overcome the barriers of implementing digital technology?

The majority of care providers (61%) highlighted at least three different forms of support they require to overcome the barriers to implementing technology. These findings are broadly consistent across providers but there were variations by the digital maturity of the organisation:

- developing care providers were most likely to report a need for support with upskilling the workforce (67%), compared with 49% of those which are expert
- digitally novice organisations were more likely than both developing and expert to report a need for help developing a business case for investment (46%, 37%, 24% respectively).

10 Local authorities

Chapter summary

Findings in this chapter are based on 17 depth interviews with local authority adult social care departments and 24 online survey responses received from local authorities' staff. We have limited evidence on the extent to which the local authorities that took part were at a comparable stage of their digital journeys to those local authorities that did not take part, and this should be borne in mind when interpreting findings.

Most local authority staff who took part in the research felt their organisations were digitally aware and making progress in using and promoting digital technology. They typically had strong leadership in digital technology and planning, and strong governance and project management processes to ensure digital technologies were implemented. Despite this, most staff that took part in the survey described their local authority's digital maturity as developing, rather than novice or expert. **Leadership and organisational culture, and staff digital skills and confidence, were seen as key to improving digital maturity.**

All local authority staff taking part in a depth interview reported that their local authority either had a digital strategy or plan in place (either at corporate or departmental level), alongside dedicated capacity to implement it, or was in the process of doing so. Having dedicated resource to focus on digital transformation was also common among local authority staff responding to the online survey. Digital transformation was facilitated by innovative business analysts, change partnerships, and close working relationships with health partners e.g. within integrated care systems (ICSs) and with technology suppliers.

Awareness of the national offers to promote and support the use of digital technology (e.g. roll out of tablets in care homes, use of NHSmail, communities of practice and masterclasses organised by national bodies) **was high among participating local authority staff, with a clear perception that such initiatives accelerated over the pandemic. The most significant barrier to engagement with the national digital support offers was the lack of capacity in local authorities** to engage with the offers. However, if the offers from national programmes were flexible and included the features which local authorities would find most valuable (e.g. more bespoke support) there would be incentives to participate.

Participants from local authorities described most of the frontline staff in their local authority as working remotely (at the time when fieldwork took place in Spring 2021) **and having access to digital systems.** They explained that since the pandemic, frontline staff had embraced using digital technology to support people with care and support needs, in particular smartphones, video calling platforms, and digital care management systems. However, **there were recognised limitations in the knowledge and skills of staff for suggesting digital technology solutions to meet needs.**

All but one of the local authority staff taking part in the depth interviews did not feel able to clearly comment on the cost benefits of digital technology. **Although technology could lead to cost savings** (e.g. in archiving space, paper and stationery, office desk space, and travel and subsistence) **these savings were not believed to necessarily recoup the costs of investing in technology.**

The overwhelming perception was that digital technology was beneficial in other ways, beyond financial considerations:

- it improved front line staff productivity and job satisfaction
- it improved the health and wellbeing, quality of care and outcomes for people with care and support needs
- it reduced the burden on unpaid carers.

The main barriers to the use of digital technology by local authority staff centred around a lack of awareness about available digital technology and potential uses, the quality of local authority care management systems, and the limited digital skills and confidence among the frontline workforce and among people with care and support needs or unpaid carers, combined with a perceived reluctance among the latter group. Participants reported that local authorities were working to address these barriers, improving or investing in new care management systems, rolling out major initiatives to improve digital skills and confidence among frontline staff, raising staff awareness of care technology and discussing digital technology with people with care and support needs when conducting assessments. Work was also going on beyond adult social departments to improve digital infrastructure and skills more widely in their areas.

Technology enabled care using personal alarms or sensors was widespread with all participants saying their local authority funded or provided these and recommended them through information, advice and guidance (IAG) services. More advanced technology such as voice-operated or remote-controlled technology or sensory or robotic technology was considered as being important to the support offer and a number of local authorities were beginning to promote these options. IAG services also promoted consumer technology, health and wellbeing apps; these were promoted by about half of those who took part in the research. The main challenges faced by IAG services was the digital exclusion of people with care and support needs and unpaid carers, and the difficulty of accessing and navigating IAG services – an issue also raised by some participants with care and support needs who explained [they turned to family and friends to access IAG online](#). Related to this, **participants from local authorities described digital exclusion as a major barrier to meeting the health and care needs of local people through digital technology.**

Participants from local authorities regarded the digital maturity of care providers as limited, especially among small sized care providers. Participating local authority staff were aware of the barriers that care providers faced when adopting digital technology, citing limited capacity or ability among small care providers, and limited digital skills and confidence among care workers (which is in line with [care workers' self-assessment of their digital skills](#)).

Working closely with technology suppliers was more frequent among large local authorities (such as county councils) – smaller ones were less likely to have the capacity to do so. **Challenges in working with technology suppliers centred around the limited choice of case management recording systems, their lack of interoperability, the large choice of technology enabled care and consumer technology which was considered overwhelming, and high entry costs** which were prohibitive for small local authorities such as unitaries. To overcome these barriers some participants reported that their local authority had put in place change partnerships, working with other local authorities or organisations with expertise in change management or technology.

Looking to the future, all local authority staff interviewed envisioned a future where digital technology would be central to their business. Types of technology thought to be adopted by local authorities in the next 5 years included technology that supports effective mobile and remote working,

data management and data analytics technology, support and monitoring technology, consumer technology and apps. **The interoperability of digital systems, and the digital skills and confidence of the workforce, were considered key to the realisation of these aims.**

10.1 Profile of participants

This chapter explores digital innovation and adoption by local authority adult social care departments (ASCD). It explores the digital maturity of these departments and how they engage with national digital support offers, support their frontline staff and local citizens, and work with suppliers of technology and local care providers.

It draws on the findings from 17 depth interviews with local authority ASC departments from across England, of which 4 were county councils, 6 metropolitan councils, 4 unitary councils and 3 London Boroughs. Efforts were made to recruit a mix of local authorities in terms of digital maturity including some which had made significant progress and others which were developing. Interviews were held with Directors of Adult Social Services, digital leads, and commissioners within these local authorities.

This chapter also draws on 24 responses received to an online survey of local authorities in England. The questionnaire included two sections: one on commissioning in ASC and one on learning and development in ASC. The two sections could be completed by the same person or by two different members of staff, but local authorities could only provide one survey response, covering one or both sections. Participants typically included senior staff working in ASC commissioning and/or learning and development. Out of the 24 responses received, 2 local authorities had completed both sections of the questionnaire, one local authority only completed the section on learning and development, and 21 only completed the section on commissioning. While efforts were made to receive a response from as many local authorities with adult social services responsibilities as possible, it is possible that those who did not respond may be at a different stage in their digital journey, compared with those who responded. In addition, as only 3 local authorities completed the questions on learning and development, it was not possible to present the survey data about learning and development. For more information on this, please see the [learning and development chapter](#) based on the experience of the workforce and learning and development providers.

10.2 Digital maturity

10.2.1 Perceptions of local authorities' digital maturity

Most participants felt their local authority was digitally aware and making progress. Most described their local authority as having good digital awareness and reported that they were making progress in using and promoting digital technology. Only one local authority member of staff thought that the overall level of digital maturity in their local authority was low, perceiving it as having only a basic technology enhanced care (TEC) offer and poor internal digital systems. This was because other spending priorities had diverted resources elsewhere rather than a lack of awareness of, or willingness to engage in, the digital technology agenda.

“We’re all on a [digital] journey.” Digital lead, County Council

In the online survey local authority staff were also asked how digitally mature their organisation was. Overall, 18 of the 23 participants said their local authority was developing, while 3 said their local authority was novice and 2 said it was expert.

Leadership and organisational culture were seen as key to improving digital maturity. In the depth interviews, local authority staff that considered their local authority to be making most progress in digital maturity had the benefit of proactive leaders championing the use of and promoting digital technology, set within a supportive organisational culture. For example, one participant described how their chief executive had established a digital leadership working group within the senior management team. The working group was chaired by the chief executive and was tasked with examining the entire work programme and especially adult social care through the 'digital lens'.

“[The working group] shines a light on digital opportunities across the council.” Digital lead, County Council

In the online survey, local authority staff were asked whether they agreed or disagreed with a number of statements related to the digital leadership in their organisation. Out of 23 participants, 15 agreed that there was strong leadership in digital technology and planning and 5 disagreed with this statement. Most (17 in 23) also agreed that their organisation had strong governance and project management processes in place to ensure digital technologies were implemented. This suggests that most local authority staff surveyed felt their local authority had sufficient leadership and skills to implement technology, despite 18 of them saying their local authority was still developing digitally. Since the number of responses from local authority staff was small it is not possible to assess how representative these levels of digital leadership are.

Staff digital skills and confidence were also key to improving digital maturity. Local authority staff who took part in the depth interviews recognised the importance of their frontline staff having the digital skills and confidence to both use and promote digital technology to support people with care needs and unpaid carers. One participant spoke of the need to support staff to apply the digital skills they used in their personal lives to the workplace.

In the online survey, local authority staff were asked about the skills and knowledge of their local authority's frontline staff. Only 5 out of 23 agreed that frontline staff in their organisation had the skills and knowledge to suggest digital technology solutions to meet the needs of individuals in their care. Around half (10 in 23) disagreed with this statement. This suggests that the digital skills and knowledge of frontline staff in identifying how and where to use digital technology may benefit from being further developed – an issue also [reported by the workforce](#).

In the depth interviews, several participants commented that their local authority had made significant progress in improving the digital infrastructure across their locality, for example through the availability of 5G and fibre broadband. These were often local authorities with corporate ambitions to be 'smart' cities or places and this connectivity provided a foundation to improve the digital offer to local people.

“Our maturity can be measured at two levels, we have well advanced digital infrastructure but on the flipside our service provision and culture is not.” Digital lead, Metropolitan Council

In the depth interviews, staff from local authorities described their organisations' digital maturity at three differing levels - system-wide, council-wide (corporate) and departmental. These levels could be described as:

- **System digital maturity** across the integrated care system (ICS). The focus is on mutual digital ambitions and activities across NHS partners and other local authorities in the ICS, such as implementing the local shared care record.
- **Corporate digital maturity** looking across the whole local authority. It was considered important to have the backing of corporate leaders and colleagues when developing ASC digital plans.
- **Departmental digital maturity** at the adult social care level. A number of local authority staff interviewed felt that the LGA / NHS Digital Maturity Assessment helped inform the approach to the use and promotion of digital technology within their ASCD.

“The LGA Digital Maturity Assessment was a good snapshot for the department.” Digital lead, Metropolitan Council

In the survey, 10 out of 23 participants reported that their local authority had completed the Local Government Association Social Care Digital Maturity Self-Assessment (DMA), 4 said they had not and the remaining 9 did not know if their local authority had completed it.

10.2.2 Digital strategies and internal capacity

All those taking part in a depth interview said their local authority either had a digital strategy or plan in place, alongside dedicated capacity to implement it, or was in the process of doing so.

There was a recognition that digital progress takes considerable time and resources, and that internal capacity was critical to this. All local authorities interviewed were reported to have established dedicated posts (and in some cases dedicated teams) either located within the ASC department or within their corporate centre to lead and coordinate activity. In nearly all cases, these teams or posts were established within the last three years. Dedicated resource to focus on digital transformation was also common in local authorities responding to the online survey, with 19 of the 23 participants stating their local authority had a digital lead or champion for adult social care.

In the depth interviews, participants explained the importance of retaining flexibility in digital plans. One participant stated that their local authority had deliberately framed its digital strategy within a three-year period, to allow for greater flexibility as the pace of technology evolution increased.

“Our council appointed my post 3 years ago and for 2 years seconded staff into the team, and 6 months ago made all these posts permanent.” Digital lead, County Council

Innovative business analysts were felt to have a pivotal role for local authorities. Three local authority participants specifically referenced the significant contribution that ‘inquisitive and entrepreneurial’ business analysts (also called business development managers) with a background in digital technology innovation can make to successful digital transformation activity. These roles were seen as pivotal in translating complex frontline practice requirements into technical digital solutions (and vice versa).

“Authorities should be recruiting these roles [business analysts] at a senior management level, such is the value they can add.” Director, Metropolitan Council

One participant explained how their local authority had set up a dedicated innovation team, supported by their chief executive, to explore digital solutions to meet some of the more deep-rooted challenges facing

ASC services, and the local authority more widely. The team used a human-centred design¹¹⁸ approach to test digital solutions through the lens of people who use or benefit from the service in question.

“I have worked with a council in developing a successful digital app to support remote working under the strap-line ‘designed by care workers for care workers’.” Commissioner, Metropolitan Council

Change partnerships have been very valuable in helping local authorities achieve their digital ambitions. Several participants in the depth interviews reported that their local authority had recently appointed ‘change partnerships’ where, typically, a technology supplier and an independent change management consultancy specialising in digital technology were working with the local authority and relevant stakeholders. These change partnerships were designed to source TEC solutions on behalf of local people, introduce technology to the local authority, and support organisational culture change within the context of enabling frontline staff take a more personalised, strength-based approach to the use of digital technology in improving health and wellbeing outcomes.

Most local authorities were working closely with their health partners. Several participants in the depth interviews commented that their department’s approach to digital technology was steered by digital strategies and plans set at a broader integrated care system (ICS) level. On a more localised level, one participant described how their local authority had worked in close partnership with their CCG ahead of the COVID-19 pandemic to support the local care market to adopt digital working. Each provided specific co-ordinated support offers. For example, the CCG provided mobile phones to care staff and the local authority offered support for using these devices. The local authority participant emphasised the importance of having a joined-up approach.

“It doesn’t matter who the provider talks to, it’s important we [the local authority and CCG] are all saying the same thing.” Commissioner, Unitary Council

10.3 National digital support offers

10.3.1 Engagement with national offers

Most local authority staff interviewed were aware of national offers to promote and support the use of digital technology and thought that the rollout of initiatives had accelerated over the pandemic. Examples included programmes for the introduction of tablets, NHSmail, online communities of practice and masterclasses organised by national bodies such as the LGA. National offers enabled local authorities to learn in three different ways:

- Reflection on strengths and areas for improvement in their own digital practice, for example through self-assessment when completing the Digital Maturity Assessment.¹¹⁹
- Learning from others, for example through publications and reports from national organisations. One participant observed that whilst not all local authorities were the same, many of the underlying issues and solutions were similar.

¹¹⁸ Human-centred design is an approach to problem solving that develops solutions by involving the human perspective in all steps of the problem-solving process.

¹¹⁹ In the online survey, 10 of the 23 participants said that their local authorities had completed the LGA Social Care Digital Maturity Self-Assessment, while 9 did not know and 4 had not.

- Learning with others, for example through online communities of practice and masterclasses organised by national bodies such as the LGA. Learning interactively (and online) with others on similar challenges, particularly over the pandemic period, was considered very informative and helpful.

“I have come across previous unheard-of councils and found out about the impressive things they are doing.” Digital lead, Unitary Council

10.3.2 Barriers to engagement

Local authority staff who took part in the depth interviews thought that a significant barrier to engagement in national offers was a lack of internal capacity. Smaller authorities had greater pressure on their internal capacity and were less likely to engage than larger ones. However, one smaller authority had partnered with another larger authority in a joint bid to participate in a national opportunity. There was also a worry that competing internal priorities could divert local authorities from engaging with national offers.

“We have a small team and it is also very difficult to release frontline staff [to participate in national support offers].” Digital lead, Metropolitan Council

Local authority staff who took part in a depth interview also thought that national support offers needed to be more flexible. Two participants commented upon the relatively fixed nature of national offers and felt that local circumstances and conditions were not considered. For example, an expectation in the Digital Maturity Assessment that local authorities would produce detailed digital strategies was not seen as an internal priority because of the small size of the authority.

“Often we find that [national support] opportunities do not align with our internal priorities.” Commissioner, County Council

10.3.3 Incentives to participate

Participants from local authorities were clear about the types of things they would like to gain from national programmes, and which would encourage them to participate. These included:

- learning what has worked well (or not)
- access to information about grants
- advice on digital integration with health
- support on interoperability of care management systems
- keeping abreast of digital developments.

10.4 Use of digital technology of frontline staff and people with care needs

10.4.1 Use of digital technology

Nearly all participants said their local authority frontline staff worked remotely and had access to digital systems. Several local authorities had already moved to remote working before the pandemic. In other cases, the COVID-19 pandemic had accelerated and increased the amount of remote working.

Since the pandemic, many participants reported that their local authority frontline staff had embraced using digital technology to support people with care and support needs. In the depth interviews, they reported that most face-to-face meetings had been replaced by virtual meetings (using MS Teams or Facebook group conversations, for example) or telephone calls for most social work and occupational therapy assessments and reviews.

In the online survey, participants were asked what technology frontline staff used to manage and administer adult social care services. Most reported that they used smartphones (21 in 23) and video calling platforms (19 in 23). Other commonly used technology included:

- digital care management system (16)
- mobile tablets (14)
- rostering software (10)
- care scheduling software (8)
- NHSmail (8).

The online survey also asked about technology local authorities directly fund or provide to people with care needs or unpaid carers. Most participants said their local authority provided personal alarms (21 of 23), monitoring equipment with sensors (21) and a smaller number said it provided voice-operated or remote-controlled (7), sensory (4) or robotic (4) technology. A website or app to connect people with care needs with those who provide those services was mentioned by 7 participants.

In the depth interviews some local authority staff reported that frontline staff were encouraged to work with people with care and support needs and unpaid carers to harness the potential of the consumer technology that they already had, for care and support purposes.

“Social workers are building upon [smart technology] many people are now using in their daily lives.” Digital lead, Metropolitan Council

However, the online survey results showed that there were further development needed for local authorities and staff in being able to offer this type of support, as only 14 of the 23 survey participants reported that their organisation used technology to support the care provided to people with care and support needs and their carers (2 disagreed and 7 neither agreed, nor disagreed). As reported earlier, only 5 out of 23 participants said that their local authority’s frontline staff had the skills and knowledge to suggest digital technology solutions to meet people’s needs.

10.4.2 Benefits of digital technology

Local Authority staff taking part in the depth interviews did not feel able to fully evaluate the cost benefits of digital technology. They felt it was too early to be able to do this. They thought that although digital solutions saved money, they required significant investment in the form of hardware and training, and they were unable to make direct attribution between the promotion of digital technology and budget savings. They were extremely interested in the correlation between investment in digital technology and savings, but acknowledged that, at this point, there was little evidence to substantiate making the investment for financial reasons alone. Participants felt that the priority for digital technology was to improve quality, outcomes and productivity rather than make cashable savings.

“There is a clear expectation that investment [in digital] will outweigh any cash returns.”

Commissioner, London Borough

Cost savings identified by the local authority staff who took part were:

- reduction in archiving space: staff member commented that the reduction in archiving space freed up a whole office which was later sold to a local university
- reduction in paper and stationery costs
- reduction in office desk space: several participants commented that agile working had reduced the staff to desk ratio, thereby reducing office overheads and the local authority estate
- reduction in travel and subsistence costs: one participant estimated that their local authority’s costs for travel and subsistence could be reduced by up to 40 or 50%.

Cost savings from business systems and management technology were mentioned in the online survey, with 11 of the 22 local authority participants mentioning cost savings which were used to meet budget savings targets, and 10 mentioning cost savings which were used to offset the costs of technology. For support and monitoring technology, 13 of the 22 local authority participants mentioned cost savings which were used to offset the costs of technology and 10 mentioned cost savings used to meet budget savings targets.

Most local authority staff who took part in the review thought that digital technology had improved the productivity of the frontline workforce. In the online survey, the majority (20 out of 22) of participants whose local authority frontline staff used technology to manage adult social care services said that improved staff productivity was a benefit of business management and care systems. A similar proportion also said it improved contact and engagement with colleagues and team working (19 out of 22), and that it had a positive impact on staff job satisfaction (19 out of 22).

In the depth interviews, one local authority participant also cited a recent staff survey where two-thirds of participants agreed they were more productive (although this was not just related to business management and care systems). The reasons for this improved productivity were:

- virtual assessments and internal meetings were saving travel time
- remote working had shifted the working culture and how a person is judged from ‘presenteeism’ to outcomes, that is, from how many hours the person spends in the office to what they achieve
- the flexibility of remote working had the potential to increase staff wellbeing which, in turn, could improve productivity.

An important point made in the qualitative research was that increased productivity should not result in reduced headcount but rather in releasing staff to do other important tasks such as face-to-face care or analysing data.

“Staff are not having to commute every day and there are less office distractions.” Commissioner, London Borough

Other benefits of business management and care systems mentioned in the online survey were that they:

- improved health and wellbeing outcomes of people with care and support needs (18)
- enabled staff to spend more time delivering care (16)
- improved the quality of care delivered to people (15)
- reduced the burden of care on unpaid carers (14)
- improved the overall health and wellbeing of unpaid carers (14).

The online survey also asked about the benefits of support and monitoring technology for people with care and support needs and unpaid carers. The majority of participants (21 out of 22) felt that this type of technology benefited the health and wellbeing outcomes of people with care and support needs. Other benefits included a reduction in the burden of care on unpaid carers (19) and improving the overall health and wellbeing of unpaid carers (18). The quality of care delivered was also felt to be improved through the use of this type of technology (17).

Consumer technology was also viewed as having benefits. In local authorities where consumer technology and apps were provided, or where the public were signposted to it, it was felt the main benefit was to the health and wellbeing of people with care and support needs (15 out of 17 survey participants). As with support and monitoring technology, the second most common benefits were the reduction in the burden of care on unpaid carers (13) and an improvement in the quality of care delivered (13).

In the depth interviews, all local authority participants were convinced that there was a connection between the use and promotion of digital technology and improved outcomes and quality of service. In the absence of universally agreed measures to quantify this, participants felt that digital approaches were supported intuitively by their leaders. Evidence of benefits was largely anecdotal such as examples of care technology enabling people to remain independent and consumer technology like WhatsApp promoting wellbeing by keeping individuals in touch with loved ones.

“We have set up a select committee review on the benefits of smart technology.” Commissioner, London Borough

10.4.3 Barriers to the use of technology

In the depth interviews, the quality of local authority care management systems was felt to be a major barrier to digital working. Over half of local authority participants were unhappy with their care management recording system. They were described as unwieldy, complex, and having many layers that did not fit together well.

“We have a care management [system] which is not comprehensively linked – there are over 15 Excel spreadsheets also being used.” Director, Metropolitan Council

The other major barrier according to participants in the depth interviews was a perceived lack of digital skills and confidence in the frontline workforce. Local authority participants commented that some frontline staff, particularly older staff, displayed a resistance to digital working in terms of their interaction with people with care and support needs and unpaid carers. They noted that these staff tended to prefer to meet people face-to-face and to take notes by hand rather than on a digital device. A lack of staff confidence around data security was also mentioned as holding back progress towards wider use of digital technology. It should be noted that these views contrasted with the overall self-reported digital skills and confidence of the workforce, as discussed in [sections 5.1](#) and [section 5.2](#).

“We need to make sure that our internal staff, including social workers and care staff, have the right skills and confidence to use the technology.” Digital lead, Metropolitan Council

Digital skills and confidence were also mentioned as a barrier in the online survey. For example, around half of participants to the local authority survey stated that one of the main barriers to use of technology to manage and administer social care services was that frontline staff lacked the required digital confidence (13 out of 22) or digital skills (10 out of 22). This is in line with the [views expressed by care providers](#) but it contrasts with the [workforce overall assessment of their digital confidence](#).

Although they mentioned digital skills and confidence, other types of barriers were more frequently mentioned by participants to the local authority survey. These included:

- lack of awareness about available digital technology and potential uses¹²⁰
- lack of digital skills or confidence among people with care and support needs or their carers¹²¹
- reluctance among people with care and support needs or their carers to use technology in care¹²²
- lack of time to focus on developments needed¹²³
- current budget pressures¹²⁴
- a lack of infrastructure such as broadband and Wi-Fi¹²⁵

Lack of digital devices and infrastructure was a problem for some local authorities according to participants in the depth interviews. It was mentioned that some staff do not have access to smart devices, or that they have poor internet connectivity at home or when out on visits.

Personalised, strength-based approaches to digital technology were not consistently applied. Several local authority participants commented that some frontline staff were hesitant in promoting digital technologies as a means of empowering people with care and support needs to improve their health and wellbeing. They felt that this was related to limited awareness among frontline staff of the potential of digital technology to contribute to improved health and wellbeing outcomes. This was felt to be a particular issue for consumer smart technology which was not usually considered as an alternative to more traditional TEC solutions.

“We are looking to reframe our conversations with people to support them to be even more independent.” Digital lead, Metropolitan Council

10.4.4 Support for frontline staff and local authorities' plans

Several participants in the depth interviews indicated that their local authority was about to either upgrade or introduce a new care management recording system. The aim was to support frontline

¹²⁰ 18 out of 22 mentioned this in relation to technology to manage and administer social care and 13 out of 22 in relation to support and monitoring systems.

¹²¹ 16 out of 22 mentioned this in relation to technology to manage and administer social care, 14 out of 22 in relation to support and monitoring systems and 12 out of 22 in relation to consumer technology.

¹²² 14 out of 22 mentioned this in relation to technology to manage and administer social care and 12 out of 22 in relation to support and monitoring systems.

¹²³ 13 out of 22 mentioned this in relation to technology to manage and administer social care

¹²⁴ 12 out of 22 mentioned this in relation to technology to manage and administer social care

¹²⁵ 12 out of 22 mentioned this in relation to support and monitoring systems.

staff to work more effectively by reducing complexity and joining up data and processes across the health and care system. One example was a local authority that was planning to use this opportunity to link their systems to the shared care record and the 'NHS data spine'. Another was looking to create a stable digital platform onto which other digital systems, such as online assessments, customer portals, safeguarding alerts and the shared care record, could be safely bolted on, thereby enabling more joined up working.

There has been investment in other digital tools and activities. Local authority participants described a series of initiatives that had been recently implemented or rolled out to support frontline staff to work digitally. Examples included:

- using high quality smart devices that incorporate voice activated notes
- moving to cloud systems to improve remote access to data
- merging more functions onto the care management record system
- moving to a full digital recording system and limiting the use of paper-based systems.

There have been major initiatives to increase the digital skills and confidence of the frontline workforce.¹²⁶ This was a priority for many local authorities. In some cases, the focus had been on digital confidence rather than digital skills. Two participants reported that their local authority had put in place peer support and 'digital champions' and in one of these it was felt that this type of support for staff was a critical part of the move to a paperless system in the local authority. In other local authorities there had been a lot of structured and self-service online training in using digital technology and around data protection. Several local authorities had expanded their ICT support services. A couple of local authorities had conducted a staff survey to understand the impact of digital technology and understand skill gaps, both in terms of care technology and more generally.

“We are focused on improving digital confidence for how staff work not just now but in the future.” Digital lead, County Council

Many local authority participants in the depth interviews thought that digital technology could improve frontline practice and support a personalised, strength-based approach. A number of participants explained that their local authority had engaged with change management consultancies specialising in digital technology to encourage a strength-based personalised approach amongst their frontline staff, including reviewing adult social care management systems and assessment processes to ensure they covered the use of digital technology and encouraged the active promotion of digital solutions. Closer working between social work teams and the assistive technology service was the ambition of many local authorities. Some local authorities planned to evaluate the effectiveness of smart technology within care settings to inform future frontline practice.

“Our social work and OT teams now have regular meetings with our TEC team to showcase different supportive technologies.” Commissioner, Unitary Council

Local authorities planned to continue the momentum started by the COVID-19 pandemic to increase use of digital working. Some participants reported that their local authority had ambitions for

¹²⁶ The digital confidence and skills of the workforce and their access to learning development are the subject of [chapter 5](#) (skills) and [chapter 6](#) (L&D).

their frontline social work and occupational therapy teams to be using digital as the default position for all their work. Others anticipated a more blended approach with virtual working occurring wherever possible, but face-to-face meetings still being made available where appropriate - particularly when responding to safeguarding issues which required greater human sensitivities than those afforded by digital technology.

“We will now always work in this way.” Digital lead, County Council

10.5 Information, advice and guidance (IAG) services

Local authority information, advice and guidance (IAG) services commonly promoted a range of digital technologies, and these were discussed in the depth interviews.

- Technological enabled care, such as alarms and monitors, was the mainstay of IAG services. All participants said their local authority promoted traditional care technology solutions such as personal alarms, pendants and fall monitors to improve health and wellbeing outcomes of local people with care and support needs. It was clear that this was seen as a core business, closely aligned to the authorities’ more traditional responsibilities around adaptations and equipment services.
- A few participants reported that their local authority was promoting consumer and smart technology to support greater independence and wellbeing, for example through links on their website or within catalogues. One local authority, in partnership with a technology supplier, had recently launched a virtual ‘smart house’ to provide an opportunity for local people to explore the benefits and costs of the different types of technology that they could buy.
- Health and wellbeing apps were felt to be a burgeoning market with a lot of choice available, some of which was not specifically targeted at adult social care. The range and scope of these apps was constantly expanding and developing. Most local authorities included references to apps in their IAG offer and several participants indicated that their local authority advised local people of accredited lists of apps hosted by national organisations such as NHS Digital and ORCHA¹²⁷.
- Robotics and AI were seen as a niche market, which most local authorities had yet to explore. It was considered very early days and that there was limited evidence about their benefits.

In the online survey, local authority staff said that their local authority mainly provided information and advice about personal alarms (22) and monitoring equipment with sensors (20). Over half also said their local authority provided information and advice about:

- websites or apps connecting those who need care and support services with those who provide them (12)
- health and wellbeing apps e.g., for medication reminders, care plans, nutrition and exercise (14).

Other technology which was signposted by fewer local authorities included video calling platforms (11), tablets (10), sensory technology (8), voice operated or remote-controlled technology (8), audio assistants (8), smartphones (8) and smart watches (7).

¹²⁷ ORCHA (<https://orchahealth.com/>) is an independent digital health evaluation and distribution organisation.

Participants in the depth interviews reported that their local authority used digital channels, such as websites and social media, as well as contact centres to give advice, information or guidance.

Many local authorities had plans to engage with more people by, for example, ensuring that their information was more compatible with smartphones. Texting or phone apps were mentioned as a way of maximising reach within local communities.

All local authorities used their own or a dedicated website for IAG services. Some participants said their local authority listed digital care technology on its website and had tried to improve navigation to allow for self-help and self-assessment. For example, one participant explained that their local authority had set up a 'self-assessment webpage', which prompted people contacting the local authority to consider their personal circumstances ahead of any formal assessment, and offered people support in using digital technology if they were not eligible for ASC support. IAG websites and contact centres also routed people to charities, like the Alzheimer's Society and the Red Cross, which provide information on digital technologies.

Many local authorities used social media to provide IAG services. One participant described how their local authority had worked with their public health department to engage with local people through Facebook action groups during the pandemic lockdowns. These action groups were created across the locality, mainly built around parish council groupings, allowing local people to stay better connected with each other and to receive information, advice and guidance on staying healthy and maintaining independence, including the use of digital technology. They intended to continue using these social media channels to achieve a potentially much wider reach than their previous channels.

One participant described a recent local authority initiative to set up a community-based brokerage and IAG service in which local people could 'drop-in' to meet with frontline staff and explore options in how to improve their health and wellbeing and maintain independence. This included provision of IAG relating to digital technology and was considered an alternative way of engaging with local people who are at risk of digital exclusion. Another participant confirmed that their local authority was looking to expand their 'Digital Brokerage and Advocacy Service' in order to reach more people and offer information, advice and guidance on how digital technology could improve health and wellbeing.

10.5.1 Challenges for IAG services

Digital exclusion of local people was a challenge for all IAG services. This was seen as an acute issue for communities where English was not the first language. People from these communities were more likely to engage with local authority services in person rather than through online and telephone channels. One local authority was currently undertaking a review of how their IAG services had been accessed since the pandemic to look for improvements.

The complexity of accessing IAG services was also a major issue. Local authority participants recognised that the IAG system was multi-layered and often difficult for people to navigate and find the right information, advice or guidance in a timely and reliable way.

“People always find adult social care quite fragmented and difficult to access... there are so many organisations it is difficult to guarantee that people are going through the right door.”

Digital lead, County Council

10.6 Working with care providers

10.6.1 Digital maturity of care providers

The digital maturity of care providers was generally regarded as not being high. In the depth interviews, participants felt that small care providers were especially likely to have low digital maturity and make little use of technology. One example cited was a local authority which, when introducing tablets to care homes, discovered that five of the care homes¹²⁸ in their area had no Wi-Fi connectivity. Some participants gave examples of care homes not having computers until they were required to use the Capacity Tracker and purchased computers for that task. However, one local authority interviewee identified many care providers who were keen to digitally innovate, taking their lead from commissioners.

The amount of digital technology perceived to be used by care providers varied. Local authority participants thought that most care providers were, as a minimum, using basic TEC. Other care technology mentioned included smart technology such as interactive monitors connected to smart phones and smart speakers, or an app helping to organise and record homecare, and an app helping with anxiety and wellbeing. Technology known to be used to support care providers' business operations included use of remote monitoring systems, the Capacity Tracker and NHSmail.

10.6.2 Digital requirements placed on care providers by local authorities

In the depth interviews, participants explained that local authorities tended to encourage rather than mandate use of digital technology. Participants described how local authorities wanted to move care providers towards digitisation but recognised that it was early days and that understanding care providers' requirements and needs in relation to digital technology was part of their digital strategy. Some were only beginning to explore how to engage care providers in using more digital technology. There were, nevertheless, examples of local authorities placing basic digital requirements on commissioned care providers through contracting processes. Examples were requiring the use of NHSmail, having to bid and submit reports digitally, and using the Capacity Tracker. Only one local authority required the use of digital technology specifically for care, in this instance, remote monitoring.

It was felt that NHSmail had been a catalyst for care homes using more digital technology. One participant commented that their local authority used NHSmail in all its communications with care providers, including details about payments and contracts, which encouraged take-up of digital technology.

The online survey participants were also asked whether local authorities put requirements onto commissioned providers. Reflecting the mixed approach reported in the depth interviews, 8 of the 23 survey participants said their local authority required video calling platforms, while 7 required rostering software. The same number (7) also required care scheduling software. However, 8 of the 23 said their local authority did not require care providers to use any of the technology listed in the online survey.

Survey participants were asked if the homecare providers their local authority commissioned were required to use electronic call monitoring in the provision of their services. Local authorities were evenly split with 10 participants saying they did require this, 10 saying they did not and 3 not knowing.

10.6.3 Barriers to the use of digital technology

In the depth interviews, participants thought that most small sized care providers had limited capacity or ability to introduce and manage digital technology. The care provider market mostly

¹²⁸ Privately run as small businesses.

comprises small and medium sized enterprises (SMEs), typically family-owned businesses. It was felt that whilst such organisations had more autonomy than large ‘corporate’ providers, they had more limited capacity to innovate, both in terms of resources and access to in-house expertise. Small care providers were also thought to be isolated with limited opportunities to collaborate and share resources and ideas with other similar organisations.

“We are making progress with care providers and the use of digital technology. There is a willingness and awareness, but ... there are limitations on resources and capacity.” Digital lead, Metropolitan Council

The extent of digital knowledge, skills and confidence of the care provider workforce was perceived to be a barrier, in a similar way to the barriers faced by the local authority frontline workforce. Most participants who took part in the depth interviews commented that the digital skills and digital confidence of the care provider workforce was potentially a barrier to the adoption of digital technology. One local authority participant observed that the age profile of the workforce was older and less likely to have the same digital skills and confidence of a younger workforce, preferring to work in a more hands-on way and to use paper records. As also discussed in [section 10.4.3](#), it should be noted that these views differed from the self-reported digital skills and confidence of the frontline workforce as discussed in [chapter 5](#).

The structure of the care provider market presented problems for participating local authorities. The relationship of local authorities with care providers was described as ‘complex’, and it was not clear whether the local authority should require the use of digital technology, who should pay for it and who should supply the related training.¹²⁹ The different levels of digital maturity and size of operation within the care market made a blanket approach from the local authority inappropriate. The market was seen as very fragile with a risk that any requirement to use digital technology could have unintended consequences. They therefore tended to encourage, rather than require, the use of digital technology through their commissioning and procurement practices. Local authority participants were also mindful that inconsistent requirements across local authority areas might place an additional burden on care providers that worked across localities.

10.6.4 Support for the use of digital technology

In the depth interviews, many participants saw a clear role for their local authority in addressing digital exclusion within the care provider sector. Although they felt that responsibility for learning and development rested with employers, local authorities were offering support to their local communities (which by default included people working in the care sector) in addressing digital exclusion.

One participant described how their local authority had worked with a local care provider in installing Wi-Fi routers to overcome the digital exclusion of the service, although this was not considered a standard offer to the local care market. Other examples of local authority support reported by participants were:

- investing in testing the use of telecare devices
- using COVID-19 funding to support care home digitisation
- funding two full-time posts at a local care provider association to support service innovation

¹²⁹ The ‘What Good Looks Like for Social Care’ resources potentially offer some clarity on these issues.

- setting up a dedicated local authority post to support digital development within the local care provider market.

“We are rolling out a programme to our care homes to get digital devices installed [as part of the COVID-19 response].” Commissioner, Unitary Council

Participants reported that local authorities were also working alongside care providers to develop digital skills. This included supporting local authority owned care homes to adopt digital systems as well as support to the local care market through, for example, helping care providers to complete the Data and Security Protection Toolkit (DSPT) and co-developing a website to recruit staff. There were several examples of local authorities partnering with other organisations to provide digital support. Some of these were at the concept stage. Examples included:

- enabling local further education colleges to offer free support in using tablets to care homes.
- working with NHSX to rollout remote call monitoring
- partnering with Skills for Care and the European Commission to provide training to the homecare workforce.

10.7 Working with technology suppliers

10.7.1 Relationships with technology suppliers

Some, usually larger, local authorities had built up strong relationships with technology suppliers because they had developed systems together over time. Smaller local authorities were less likely to have strong relationships due to their more limited internal capacity to engage with technology suppliers. Participants from local authorities working closely with technology suppliers thought one of their local authority responsibilities was to engage with practitioners and help change their attitudes to digital technology in meeting improved outcomes for people with care and support needs and unpaid carers. It was also thought important to marry frontline experience with technology expertise. One local authority had just awarded a three-year joint contract to a technology supplier and digital change management specialists for them to work together to drive greater use of digital solutions.

10.7.2 Challenges of working with technology suppliers

Many participants were concerned that there was too little choice in Case Management Systems available to local authorities. They thought that the reliability, interoperability, capabilities, and sophistication of systems varied. One participant commented that there were five major systems in use across most local authorities, resulting in little competition on cost, with local authorities spending significant sums upgrading systems on average every five years. It was felt that they needed better assurances from technology suppliers in terms of business continuity if one of the major system suppliers were to exit the market suddenly.

Interoperability was a longstanding and major concern. Several participants noted that many of their internal data systems were not fully interoperable with others. Several local authorities were currently modernising or procuring new adult social care management systems that were designed to be more stable and future-proofed to enable other data systems to be bolted on as required.

“System interoperability has been around for ages and so many solutions have been offered.”
Digital lead, Metropolitan Council

The large choice of technology enabled care and consumer technology was found to be confusing. Several participants said their local authority had limited awareness of the different digital solutions and of the quality and reliability of a product or service. It was noted that there was some validation available from national organisations such as TSA¹³⁰ but there was no single marketplace. It was noted that the market was extremely dynamic with new products regularly coming onto the market. Another complication was that many of the digital solutions, particularly in consumer technology, were not specifically targeted at social care.

Data governance was sometimes seen as a barrier to working with technology suppliers. In one local authority the participant commented that the issues of data governance between partner organisations added to complications in working with technology suppliers in designing and adopting digital systems that included data sharing with others. These arrangements required additional time and resources to engage with wider partners to ensure digital systems worked well at the organisational interface.

Across the sample, smaller local authorities were deterred by disproportionately high entry costs. Licenses for hardware and software were generally fixed, which larger local authorities were able to absorb, but for a small local authority they were prohibitive. For example, a £30,000 licence fee was equated to losing one social worker post. The cost of regularly upgrading smart devices being used by frontline staff (most frontline staff are using smartphones and devices to undertake assessment and reviews) was also seen as expensive by small local authorities. This compounded the more limited internal capacity of smaller local authorities to take advantage of some of the different digital approaches or solutions available. Many participants concluded that the extent of internal capacity within the local authority was a contributing factor to the extent of engagement with technology suppliers.

“It is no coincidence that the councils that are further ahead are big councils.” Director, Metropolitan Council

There was felt to be a need to manage expectations in connection with technology suppliers. It was noted that digital technology is evolving at a rapid pace and that when local authority leaders see something new, they want it to be implemented quickly. However, the technical element, as well as the potential associated local authority procurement and project management processes was considered to take-up considerable time and resources. The pace of procurement practices did not align well with the pace of technological developments.

“Often, frontline staff suggest a relatively simple digital fix which soon becomes a year-long project or programme.” Digital lead, Metropolitan Council

10.7.3 Overcoming barriers

To overcome some of the challenges of choosing the right digital solution, ‘change partnerships’ had been formed with technology suppliers to help navigate and evaluate solutions. These change partnerships typically consisted of one technology company acting as broker for a range of digital solutions, working closely with the local authority operational and commissioning teams, and with change management specialists. The technology company typically trawled through a wide range of different products and solutions and identified those most appropriate for the local authority to consider. These partnerships had given local authorities a greater degree of reassurance and confidence about

¹³⁰ TSA is the representative body for technology enabled care (TEC) services.

making the right choices. In general, it was the larger local authorities which had created these partnerships.

Local authorities and technology suppliers were working together to improve service delivery.

Several participants noted that their local authority had developed close working relationships with technology suppliers to improve how digital technology was being used. This included development work and supporting staff to engage with digital technology, acting as broker in the profiling and selection of TEC offers to local people, as well as working together at a more strategic level, such as the ADASS/TSA commission to seek a more collaborative approach to digital technology within adult social care.

“We have undertaken an extensive discovery programme and talked to international, national and internal tech suppliers about our plans to overhaul our whole [digital] approach. 60 hours of very rich information, intelligence and insight to inform thinking.” Commissioner, County Council

10.8 Supporting local people

10.8.1 Digital exclusion

Digital exclusion was perceived to be a major barrier to supporting local people in meeting their health and care needs. In the depth interviews, the following aspects of digital exclusion were described:

- **Poor connectivity** was considered more problematic in rural communities although all participants were aware of citizens living in urban areas who had not been able to digitally connect to council services or care services.
- **Poor digital skills and confidence** were perceived to be a significant challenge, particularly amongst older people. However, it was noted that the pandemic had accelerated use of digital technology in most people’s day-to-day lives and had meant that some older people had started to use consumer technology, become increasingly more technologically adept and aware of the possibilities of digital technology.
- **A consequence of disadvantage** in that digital exclusion was considered to be related to levels of socioeconomic deprivation, which in turn compounded the challenges in supporting people with care and support needs.

“It is those who are most of risk of digital exclusion who are also those with greater social care needs.” Digital lead, Metropolitan Council

The previously quoted findings from the online survey about barriers to the adoption of technology also showed digital exclusion to be an issue. For example, participants from local authorities that signposted consumer technology said that lack of digital skills of confidence among people with care and support needs or their carers (12 of 17) and reluctance to use technology in care (9 of 17) were barriers to the use of such technology.

10.8.2 Overcoming barriers

All local authority participants recognised the need to address digital exclusion within their communities. Some local authorities invested in cross-local authority strategic initiatives such as ‘smart

cities', whereas other local authorities supported local people with care and support needs by distributing smart devices or making laptops (and the support to use them) available in community centres.

Participants believed that it was important to work with citizens and to find out what they wanted.

One participant commented that their local authority had set up a working group of people with care and support needs as part of its three-year digital strategy. This enabled a co-production approach whereby the group tested potential software, apps and devices and advised of their effectiveness in improving outcomes, with feedback shared with the technology supplier.

“Councils need to take a step back and ask people what they want from digital.” Digital lead, Metropolitan Council

The point was made that local authorities also needed to focus on the next generation needing social care as they were likely to be more technologically skilled, aware and confident.

“My relatives are in their 60s and using digital technology all the time. In 20 years’ time they may be requiring social care.” Digital lead, Metropolitan Council

The online survey showed that a minority of local authorities were providing or funding consumer technology for adults with social care needs or unpaid carers. The most common consumer technology provided or funded was tablets (10 of 23), audio assistances (6), smartwatches (6), smartphones (5). No further information was collected on who these were provided to, the setting in which they received care, how they were funded or the reasons.

10.9 Looking to the future

All local authority participants envisioned a future where digital technology would be central to their local authority business. COVID-19 was seen as a catalyst to accelerated use of digital technology and participants commented that there was no turning back; it had provided an insight into the future of care. In general, it was felt that using digital technology would be the way we would all conduct our lives.

“The digital revolution is here.” Director, London Borough

Some participants thought that local authorities must be more flexible and innovative in how digital technology is used to meet care and support needs. For example, the use of robotics and artificial intelligence could become the norm. However, for robotics innovation to become readily available to buy, and hence integrated into care, it was felt that there needs to be national investment.

While there would still need to be bespoke solutions for people with high needs, participants thought that digital technology should increasingly focus on prevention, supporting people at ‘the edge of care’ through, for example, smart devices and apps and the use of data to model demand and predict conditions.

“Social care needs to get smarter and cleverer in its use of digital.” Digital lead, Unitary Council

The online survey asked what types of digital technology local authorities might adopt for use by frontline adult social care staff to support the management and administration of care services. Participants reported that local authorities were considering using a range of technology in the future. Most planned to use technology that supports effective mobile and remote working (17 in 23) or data management and

data analytics technology (16). A similar number (15) also said their local authority would use consumer technology and apps in the next five years.

In terms of technology which may be adopted in the next five years for direct care provision or signposting, most participants in the online survey (19 in 21) said their local authority would provide or signpost support and monitoring technology such as personal alarms and sensors for monitoring. A similar number (18) said their local authority planned to provide or signpost consumer technology and apps in the next five years.

Big data was seen as an opportunity. However, it was felt that data protection may act as a barrier, limiting big data's potential. It was suggested that local authorities would invest in data warehouses and business analysts, so they could anticipate care and work more pre-emptively. There was a view by some participants that work needed to be done on data governance and that individuals should be in control of their own data. It was suggested that new data standards should be introduced to allow systems to work more effectively. The introduction of integrated care systems (ICS) which bring together health and social care services in an area could assist in providing the skills, resources and standards needed for improved access to and use of data.

“If we had the opportunities to work towards more national standards around data exchange and around the edges of how our system works...that leaves space for innovation...and gives technology suppliers more certainty about how data is going to be shared between councils, the NHS, care providers and people.” Commissioner, County Council

Interoperability was considered as key to ensure digital systems could work harmoniously across organisational boundaries. All participants noted that local authority data systems would need to link up between and within health and care organisations, and interoperability was a vital default setting.

“We are working with three ICSs on the same shared care record approach, two of whom have agreed, and one is wavering - a lot of effort and resources being expended to sort this out.” Commissioner, County Council

All participants saw the need to enhance the digital confidence and skills of their local authority workforce. However, as resources are stretched and committed, participants thought that this needed an urgent national offer across the whole system. This is aligned with the findings from the online survey: all those with a learning and development role (21) were asked what support they thought their organisation would need to overcome barriers of implementing technology in adult social care. About three-quarters said they would like to see greater availability of funding to invest in digital technology (16) and more evidence of effective technology (16). Other support local authorities would like included:

- help to understand the different digital technologies available in the market (14)
- upskilling the wider care workforce (14)
- upskilling the organisation's workforce (13).

One participant commented that the future approach to the design and deployment of digital technology within social care should be guided by the Think Local Act Personal 'I Statements'. This would help embed a more personalised, strength-based perspective of how digital technology could empower people to live independently. The participant went further to note that the emerging CQC

inspection regime was likely to also mirror these 'I Statements',¹³¹ suggesting that future inspection of local authorities would consider how they were supporting the use of digital technology to empower people with care and support needs and unpaid carers.

¹³¹ <https://www.thinklocalactpersonal.org.uk/MakingitReal/>

11 Technology suppliers

Chapter summary

Findings in this chapter are based on an online survey (77 responses) and 29 depth interviews with technology suppliers who worked in the adult social care (ASC) sector. Technology suppliers included those that develop and supply digital technology for care and support as well as those supplying digital technology related services. The term 'technology suppliers' is used throughout to refer to both groups.

The main customers of the technology suppliers who took part were evenly spread across local authorities, homecare providers, extra care housing and care homes. Half of technology suppliers also sold directly to NHS organisations. Sales to people with care and support needs and unpaid carers were undertaken by a minority (36%) but this was recognised as an increasingly important part of the market for some technology suppliers.

Technology suppliers noted that different digital technologies were used depending upon the care setting and type of care need, with application of their technologies for the over-65s being their largest market. However, they cited issues such as digital awareness and leadership within the specific client organisation as more dominant factors influencing the degree of use of digital technologies. Technology suppliers perceived care providers with a higher proportion of self-funded customers as more likely to adopt digital solutions as part of their added value and to differentiate themselves in the market.

The consensus among participating technology suppliers was that the ASC sector was not currently well placed to adopt, implement, and manage new technology. Though they acknowledged many examples of digital technology adoption good practice existed across the sector, it was felt a high degree of scaling and levelling up was needed to realise the potential of existing technologies. Technology suppliers saw the main barriers and enablers to greater adoption of digital technology as largely external factors. Most technology suppliers identified the following combination of challenges to further adoption across the sector:

- uncertainty in the ASC sector about what benefits technology might bring
- varying levels of digital awareness and leadership among local authorities and care providers, and a need to increase capacity and capability in relation to implementation and change management
- a perception that some local authorities and care providers' procurement practices focused on unit price rather than on outcomes and added value, and not geared toward partnership working
- the nature of the ASC market being predominately made up of SMEs can affect scaling and adoption of digital technologies and limiting purchasing confidence
- lack of funding in the sector limiting the ability to invest in existing technologies, combined with financial benefits not being realised by the purchaser of the technology
- the benefits of investment by commissioners in digital technology for use by care providers not always being fully realised, as ongoing funding of operational costs are not factored in
- a perception of inconsistent practices and behaviours from commissioners and regulatory bodies

- a lack of a digital eco-system or 'digital backbone' for the sector to build on effectively, with inconsistency in systems and a lack of interoperability.

Government policies, a clear vision for technology in ASC, data standards and enhanced interoperability, as well as financial support for the ASC sector and capacity building with smaller care providers were seen as key enablers to address these challenges.

Technology suppliers who took part thought that improved quality of care, safety, and health and wellbeing outcomes were key benefits realised through the use of technology. All technology suppliers surveyed said their products or services offered cost savings to the sector. However, the depth interviews showed that the cost benefits of some types of technology were not always realised at the point of care, either because they were seen in other parts of the health and social care system or they were directed at further improving care.

As applications have become more intuitive, and as there has been a greater use of consumer devices such as smartphones and tablets, participating technology suppliers thought that training needs were now less about the use of the device and system, compared with legacy systems. Instead, training had moved to supporting care providers to implement the related changes in practice and showing the workforce how it impacted on ways of working. This was based on participants' experience of implementing their solutions. (Further discussion of training needs from the perspective of the workforce can be found in [section 6.2](#) Digital skills learning and development in the sector.)

There has been an increased awareness and adoption of digital technology by care providers as a result of COVID-19, with increased overall demand.

Technology suppliers also reported that they planned to focus on data use, data sharing, data management and analytics, as well as predictive and preventative digital solutions in their future developments.

11.1 Introduction

This chapter explores the views, perceptions and perspective of suppliers of digital technology and services supported by digital technology who work in the adult social care (ASC) sector. It examines:

- the use and impact of digital technology in ASC
- barriers and enablers to the development and supply of care technology
- the learning and development resources provided to the sector
- the impact of the COVID-19 pandemic on technology suppliers
- their plans for future development of digital technology.

In this chapter the term technology suppliers is used to cover those supplying technology hardware and software and those supplying services supported by digital technology. The findings are based on an online survey with 77 technology suppliers and 29 depth interviews, which were carried out during May and June 2021. Throughout this chapter we comment on statistically significant differences between subgroups. However, due to small base sizes for some subgroups, particularly the different types of technology suppliers, it is not possible to comment on all differences. Data from the online survey are

unweighted as the demographic profile of technology suppliers working in ASC in the UK is unknown. Where percentages are reported, the findings are from the online survey.

11.2 Overview of participants

11.2.1 Online survey participants' role within technology suppliers

Across all technology suppliers who took part in the online survey, around a third of participants were the chief executive or managing director of the organisation (35%). A quarter were business development or marketing leads (25%) and one in ten were operations leads (12%).

A smaller proportion were software or product development leads (6%) and technology and infrastructure leads (6%).

Reflecting the seniority of participants, the majority were working in a role related to strategy and client engagement (78%). Around two-thirds (66%) were also involved in implementation of technology and a slightly smaller proportion (58%) were working on the design and development of products or software.

11.2.2 Online survey participants' organisations

The technology suppliers that took part in the online survey were a mix of relatively new companies and those that were well-established. Just over half (53%) had begun operating within the last 10 years, while a similar proportion (47%) had been established for longer than 10 years.

Most technology suppliers (66%) in the survey had been developing and providing technology for the adult social care sector for more than 5 years, while a third (32%) had started to provide technology to this sector in the last 5 years.

The number of people employed by technology suppliers also varied, with over half (53%) employing 0-49 people and a slightly smaller number (45%) employing 50 or more employees.

Most technology suppliers (66%) in the sample were based in England, with one in five (18%) operating globally in multiple countries. The majority of technology suppliers reported that their customers were in the United Kingdom (94%), and one in five reported customers in Europe (17%).

11.2.3 Qualitative, depth interview participants' organisation and role

A range of technology suppliers were identified through TSA (the representative body for technology enabled care (TEC) services), CASPA (an independent association representing the views and interests of social care software providers) and research by the Institute of Public Care at Oxford Brookes University.

The 29 depth interview participants represented a cross-section of organisations in terms of size and age. Participants had a variety of middle and senior management roles. Longer established and larger organisations were commonly first and second-generation technology enabled care (TEC) and local authority care management system suppliers, whilst newer organisations tended to be third generation TEC suppliers¹³². A third of the technology suppliers participating in the depth interviews also completed the online survey.

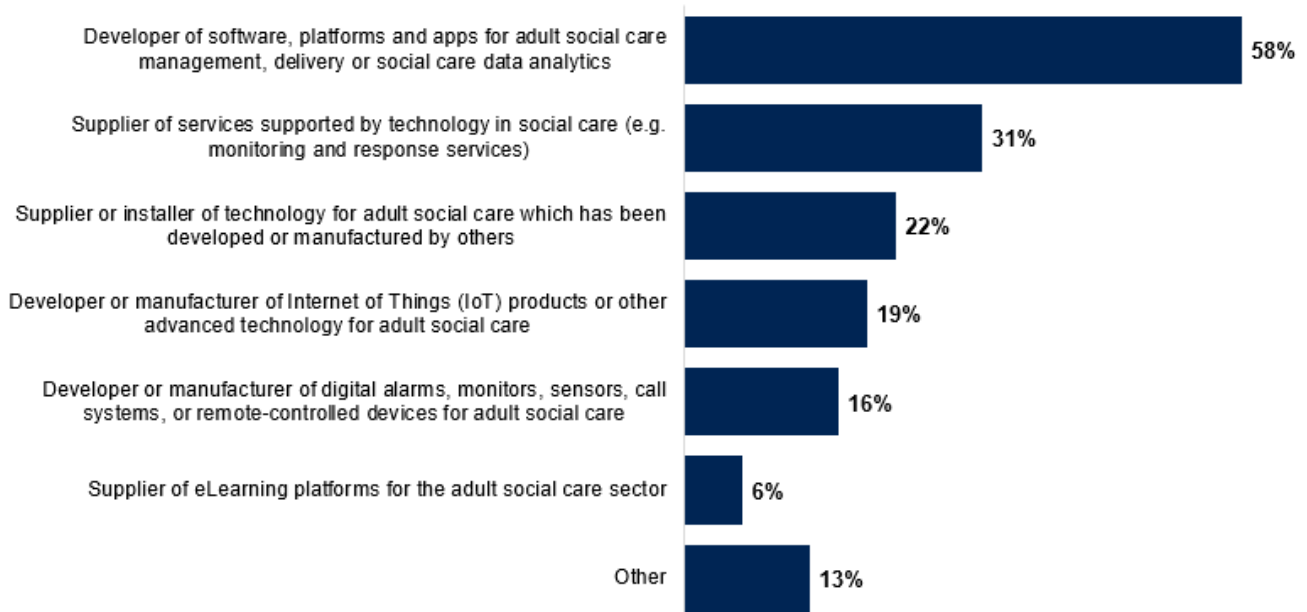
¹³² First generation TEC refers to personal alarm, monitoring and response services which are largely analogue-based, whereby a person can press an alarm button or pull a cord to call for emergency assistance. Second generation TEC devices include continuous environmental monitoring equipment with sensors that use algorithms to raise an alarm if an emergency is detected. Third generation TEC devices include

11.3 Types, aims and target audience of technology

11.3.1 Types of technology supplied

Two-thirds of technology suppliers (58%) taking part in the survey were developers of software, platforms and apps which focused on social care management, delivery or social care data analytics. A third (31%) supplied services which were supported by technology in social care such as monitoring and response services. One in five (22%) were suppliers or installers of technology for adult social care which had been developed or manufactured by others. 19% were developers or manufacturers of IoT products or other advanced technology for adult social care. 16% were developers or manufacturers of digital alarms, monitors, sensors, call systems, or remote-controlled devices for adult social care. 6% were suppliers of eLearning platforms for the adult social care sector. 13% were other.

Figure 11.1: Type of company



Base: All participants (77)
 COMP_TYPE. From the list below, please select the statements which best describe the type of company it is?

Depth interviews were conducted with 12 ‘business support and care management systems’ (BSCMS) suppliers and 15 ‘support and monitoring digital technology’ (SMDT) suppliers. BSCMS suppliers tended to be developer-type organisations who provided some form of digital care management application for care providers. SMDT suppliers were a mix of developer (third-generation TEC) and manufacturer (first and second-generation TEC) organisations who provided solutions to suppliers of TEC services or the service providers themselves. Two organisations interviewed were not technology suppliers per se but had relevant knowledge and insights that were of value to the research.¹³³

11.3.2 Target sectors

The majority of participating technology suppliers also provided their products and services to other sectors. Two-thirds of technology suppliers who completed the online survey also provided their products and services to sectors outside of adult social care (69%). Around one third only provided technology to the adult social care sector (29%). Technology suppliers which had been developing their products or services for more than 10 years were more likely to provide technology to other sectors (84%

teleconferencing that help create a ‘virtual neighbourhood’, as well as more complex sensors that could diagnose medical conditions, predict falls and remind people to take medicine. Further explanation of TEC is provided in the [Rapid Evidence Review](#) conducted as part of this research (p2).

¹³³ One of these participants was a consultant working for a cross industry body and another worked for a charity with a particular interest in technology in health and social care.

vs 69% overall). Those that had been providing technology for 10 years or less were more likely to provide technology only to the adult social care sector.

In addition to ASC, the key sector technology suppliers provided technology to was healthcare.

The online survey shows the most common other sector technology suppliers operated in was healthcare (75%), while a third provided technology to children’s social care (34%) and around a quarter offered technology to the consumer market (23%). The technology suppliers who participated in the depth interviews had a similar profile and expanded on this to explain their provision was to both primary and secondary healthcare. Technology suppliers’ customers in the healthcare sector included both NHS and private healthcare providers. The two statutory care management system suppliers in the qualitative sample also supplied other parts of the public sector, such as children’s services.

Table 11.1: Customer groups that technology or services for adult social care were provided to

Type of customer	Total (70)
Local authorities	63%
Homecare providers	63%
Extra care housing	59%
Residential and/or nursing homes	57%
NHS organisations including hospital trusts and GP practices	50%
Other providers in the adult social care sector (e.g., day care settings)	36%
Adults with care and support needs	36%
Unpaid carers	29%
Organisations offering services supported by technology	24%
Suppliers of technology to the adult social care sector	21%
Personal assistants	13%
Developer of software, platforms and apps	11%

Some technology suppliers sold to multiple customer groups so figures sum to more than 100%.

Business support and care management system (BSCMS) suppliers interviewed in the qualitative research sold solely on a business to business (B2B) basis to the public sector and independent care providers. This followed from the business and care management nature of their solutions. The end users of the solutions in these cases were the care providers’ staff.

Support and monitoring system (SMS) suppliers in the qualitative research exhibited a mixed picture of equipment and service provision on both a B2B and business to consumer (B2C) basis. Where the SMDT suppliers sold on a B2B basis, their clients were either suppliers of services supported by technology or care providers, who in turn were either commissioned by public agencies or sold their services direct to people with care and support needs on a B2C basis. The end users of the solutions in all these cases were people with care and support needs.

“It is more efficient and gives us scale quicker to sell on a B2B basis, even though we could sell our solution direct to end users.” SMDT supplier

11.3.3 Differences in use of digital technology by care setting, type of need or funding arrangement

Technology suppliers noted that different digital technologies were used depending upon the care setting and type of care need, with application of their technologies for the over-65s being their largest market. However, the depth interviews with technology suppliers also showed that issues such as digital awareness and leadership within the specific client organisation were more dominant factors influencing the degree of use of digital technologies. The key themes from the depth interviews are outlined below.

Care setting: BSCMS suppliers commonly focused on one type of care setting. BSCMS suppliers with similar core functionality, for example care planning or medication management systems, tended to focus on either homecare clients or care home clients. The different dynamics, workflows, workforce management, device connectivity and cyber security issues of community versus residential care service provision were quoted as factors in designing and providing solutions for one or the other care setting. Those BSCMS suppliers who provided solutions to a range of care settings did not see the type of care setting as the main reason for different levels of use of digital technology. They cited issues such as digital awareness and leadership within the specific organisation as more dominant factors. Many BSCMS suppliers also held the view that even though larger organisations have a higher base level usage of digital technology, some of the smaller care providers tended to be more enthusiastic and innovative adopters. SMDT suppliers explained that the application of SMDT solutions changed according to the specific type of setting. For example, group living, retirement and supported living usually involve off-site alarm response whereas care homes usually involve on-site monitoring and alarm systems.¹³⁴

Care need: A shared theme for all technology suppliers was the main application of their technologies being for people aged 65 and over. Care providers working with adults under 65 and with a mental health condition and/or a learning disability were also users of digital technology but represented a minority of their sales. In a SMDT context there was more tailoring of the mix of technologies applied to the specific requirements of the person with care needs, such as remote health condition monitoring or use of epilepsy alarms. SMDT suppliers therefore identified a relationship between use of digital technology and care need more than BSCMS suppliers. BSCMS suppliers were more likely to offer a common solution for customers. For example, medication management solutions were applicable irrespective of care needs, though more beneficial in complex care need situations. Their experience of digital solution adoption was that it was less related to care need than the digital maturity and financial priorities of the organisations buying their solutions.

“It should do and does in some circumstances, but because of the heterogeneous nature of the sector it is difficult to pull out actual differences by care need.” Health and Social Care Innovation Incubator

Participating technology suppliers suggested that care providers with a higher proportion of self-funded customers adopted digital solutions as part of their added value. Technology suppliers in the depth interviews thought that this was used by care providers to differentiate themselves in the market. This led to adoption of:

- systems that evidenced compliance and supported quality care to achieve a high CQC rating

¹³⁴ The [Rapid Evidence Review](#) highlighted the future impact of the switching off of the analogue telephone network in 2025 which may impact on first generation TEC of this kind (p14)..

- technologies that gave a better care experience and connectivity with family and friends.

11.3.4 Readiness of the ASC sector to adopt and implement care technology

The consensus of technology suppliers interviewed was that the ASC sector needed to improve its ability to adopt, implement, and manage new technology. Digital technology suppliers acknowledged in the depth interviews that many specific examples of digital technology adoption good practice existed across the sector. However, technology suppliers viewed the ASC sector as heterogeneous in terms of digital readiness, requiring a high degree of scaling and levelling up to realise the potential of existing technologies. They identified the following combination of challenges to further adoption across the sector:

- **Funding:** Insufficient funding in the sector was mentioned by all participants as limiting the sector's ability to invest in existing technologies.
- **Competing budget priorities:** In the context of budget pressures, suppliers considered that care providers had many competing budget pressures that created limited headroom for investment in digital technologies.
- **Capital investment and operational cost:** The benefits of investment by commissioners in digital technology for use by care providers were not always fully realised, as the funding for capital investment was not always linked to the need for ongoing funding of operational costs or support in using the technology.

“A commissioner provided free iPads to care homes, but without funding to provide ongoing support in their use and guidance on how to make the best use of them to support care and care management.” BSCMS supplier

- **A diverse care provider market creating a fragmented customer base:** The ASC sector is made up of a large number of small and medium size care providers. Technology suppliers who took part in the depth interviews found that this context created a structural issue as there were many decision makers and therefore a lack of critical mass to make a strong business case for adopting digital technologies.
- **Digital leadership:** In the depth interviews technology suppliers thought that there were varying levels of digital awareness among care provider owners or senior leaders. This limited their ability to recognise the opportunities digital technology offers. Furthermore, being infrequent buyers of such solutions, care providers were described as having a risk-averse attitude to investing in digital technology.
- **Capacity and capability:** Interviewees felt that care providers' capacity and capability to successfully implement and manage new technology needed to be strengthened. This was particularly in relation to the project and change management aspects, where changes in processes and care worker practices were seen as even more important than training in the use of the technology itself.
- **Digital literacy:** Current and emerging digital solutions and the convergence of business and consumer devices and technologies were considered to have lowered skills barriers to use of technology for care providers and care workers, compared to some legacy systems and technical solutions. This resulted from more widespread digital skills in the population as well as emerging

digital solutions being more ‘user-friendly’ than first generation technology. Therefore, technology suppliers viewed registered managers’ digital literacy as a key challenge rather than concerns about frontline care worker digital literacy. It should be noted however that surveys and interviews with care providers and the workforce revealed [different perspectives](#) on digital literacy and skills barriers in ASC.

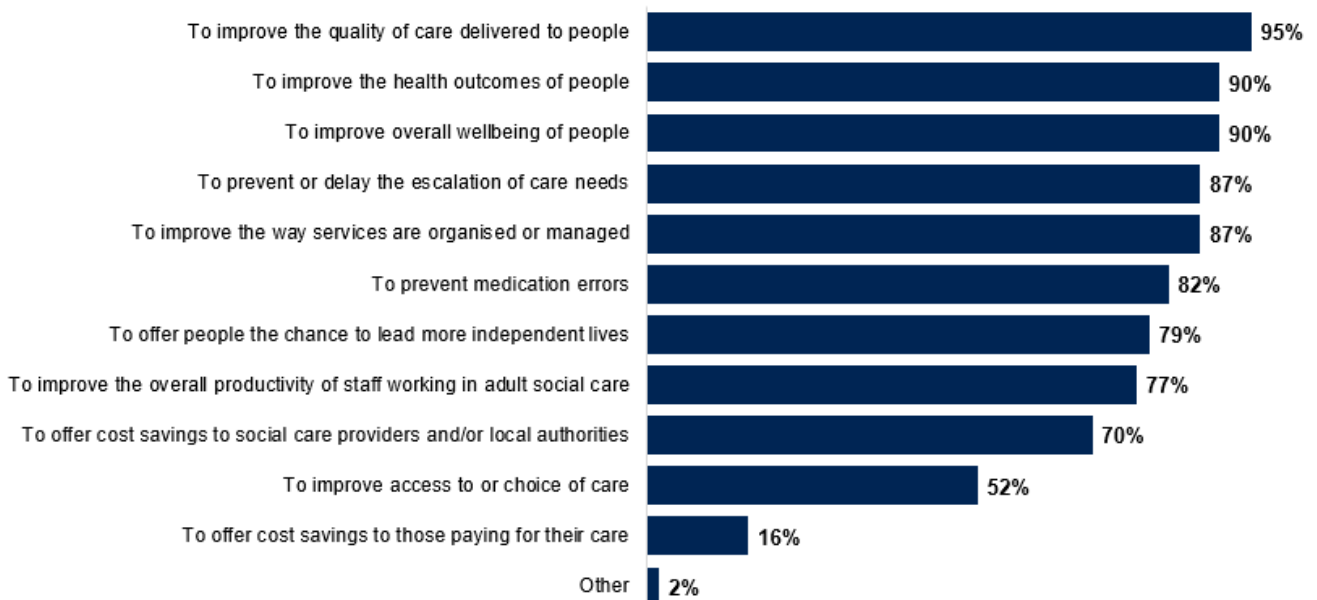
“The technology itself is no longer a barrier in the way it used to be, with the use of tablets and mobile phones - it's much more common.” BSCMS supplier

- **ICT infrastructure and support:** Technology suppliers found that the fragmentation of the market and the high number of small and medium size care providers resulted in many providers not having in-house ICT expertise and capability. This created challenges for technology suppliers in ensuring there was an appropriate infrastructure to implement the solution and for on-going support. Cloud-based and hosted systems were providing some mitigation of this.

11.4 Aims and impact of technology supplied in terms of benefits, costs and productivity in customer organisations

The aims and perceived impact of care technology reported by technology suppliers focused around improving the quality of care and the health outcomes and wellbeing of people receiving care, as well as prevention and independence. In the online survey, technology suppliers were asked about the aims of the products or services they provided. Most suppliers (95%) said their technology was intended to improve the quality of care delivered to people, as well as improving health outcomes (90%) and the overall wellbeing of people (90%). A similar proportion said it aimed to prevent or delay the escalation of care needs (87%). Aims related to cost savings, productivity and improvement to the way services are organised and managed were slightly less frequently mentioned.

Figure 11.2: Type of products technology suppliers provided to the adult social care sector



Base: All participants who develop or supply business support and care management, support and monitoring technology, software or apps, and advanced technology (61)
 AIM_COMBINED. Thinking about the technology your company provides to the adult social care sector, what are the overall aims of the product(s)?

The depth interviews showed that the aims and perceived impact of digital technology varied depending on the products or services supplied. The combination of care management systems and

TEC solutions, usually from a range of technology suppliers, were viewed by suppliers in the depth interviews as supporting effective care delivery that would not be possible through care workers or unpaid carers alone. This was not viewed as the case in the application of back-office systems per se, though it was recognised that they could make indirect contributions to care and wellbeing benefits, for example through effective rostering of care workers. BSCMS and SMDT suppliers also articulated the benefits digital technology brought in terms of regulatory compliance and evidencing the quality of the care provided.

“... the benefit for them is that they can deliver a higher quality of care and actually be validating that they are doing that.” BSCMS supplier

Talking about the prevention role of care technology, depth interview participants providing data analytics or artificial intelligence-based solutions pointed out that the application of data analytics or artificial intelligence would enable a move from largely reactive care services to pre-emptive and preventative care. They explained how this was already informing care planning and delivery across all care setting types, increasing ‘outbound’ and pre-emptive care activity.

“Behavioural insights will inform better care planning and delivery and therefore maximise safe independent living.” SMDT supplier

When asked about the impact of technology on the cost of care, participants in the depth interviews commented that a key aspect of the use of digital technology was its contribution to reducing the rate of escalation of care need by safely prolonging independence. The use of existing care management systems and first and second-generation TEC solutions were already supporting continued independent living, particularly where these were joined up operationally. The use of third generation TEC and care management systems applying data analytics or artificial intelligence were viewed as providing an even greater opportunity to further extend independent living. This may take the form of delaying when a person may need to transition from homecare to a care home, or speedier hospital discharges and reablement. In addition to a positive impact on the health and wellbeing of the person with care and support needs, if they paid for their own care, it was likely to have a financial benefit for them and/or their family.

Technology suppliers in the depth interviews felt that cost savings could be realised in other parts of the health and social care system. SMDT suppliers and service providers who took part in a depth interview articulated benefits that largely accrued to commissioners and other parts of the health and social care system, rather than the buyer of the technology and at the point of care. For example, digital technologies that prevented falls would have cost benefits for NHS paramedic services, NHS secondary care providers, primary healthcare and local authority ASC services through reduced demand for and pressure on their services, and increased certainty of care pathways from their services such as when applying the Discharge to Assess model.¹³⁵ Where the digital solution involved the application of data analytics or artificial intelligence, the suppliers articulated benefits that would largely accrue to the wider system.

Participants in the depth interviews suggested that the impact of technology on reducing costs at the point of care may be hard to realise. In relation to productivity and efficiency for care providers, it was stated by some depth interview participants that cashable savings were hard to realise, particularly in smaller settings. This was due to their minimum staffing level requirements. The time that was freed

¹³⁵ <https://www.nhs.uk/NHSEngland/keogh-review/Documents/quick-guides/Quick-Guide-discharge-to-access.pdf>

up by technology was sometimes directed to greater care contact time, but often absorbed in dealing with other demands on the care provider and increased levels of activity. The latter may result in an overall reduction in unit cost of activity but was not viewed as realising cashable savings.

“The time freed was sometimes directed to greater face to face care, but often absorbed in dealing with other commissioner/regulatory demands and increased volumes of activity.” SMDT supplier

11.5 Perceived barriers to the development and supply of care technology

11.5.1 Internal barriers

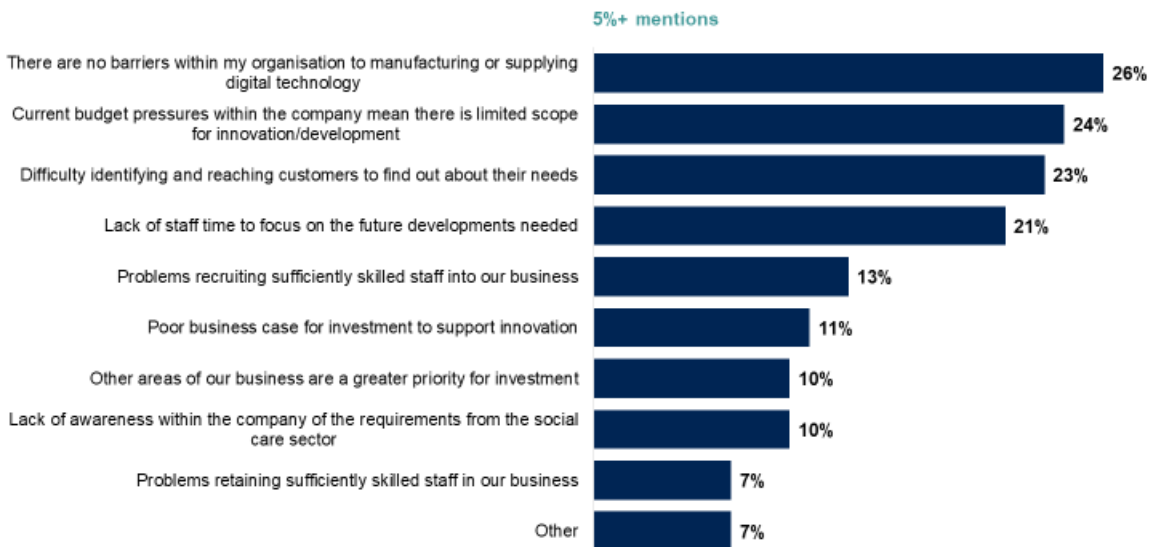
There was a mixed picture across technology suppliers as to the existence and nature of internal barriers to the development and supply of care technology. In the online survey, a quarter (26%) of technology suppliers who developed or manufactured digital technology, hardware or equipment said there were no internal barriers to developing technology (Figure 11.3). In the depth interviews, this same group of technology suppliers perceived the main barriers as external.

“We don’t have barriers in terms of meeting increased demand, it is about stimulating that increased demand.” BSCMS supplier

However, in the survey a quarter of technology suppliers (24%) cited current budget pressures within the company as a barrier, which meant there was limited scope for innovation and development. A similar proportion (23%) also said that it was difficult to identify and reach customers to find out about their needs. Related to this, one in ten reported a lack of awareness within the company about the requirements from the social care sector (10%).

Related factors raised by participants in the depth interviews included attracting the right people when they were competing for developers in the Far East, and difficulties in recruiting staff who have experience of the social care sector and the technical awareness to implement solutions. Another resource issue mentioned in the depth interviews was the current lack of semi-conductor components.

Figure 11.3: Main barriers within the company to developing technology



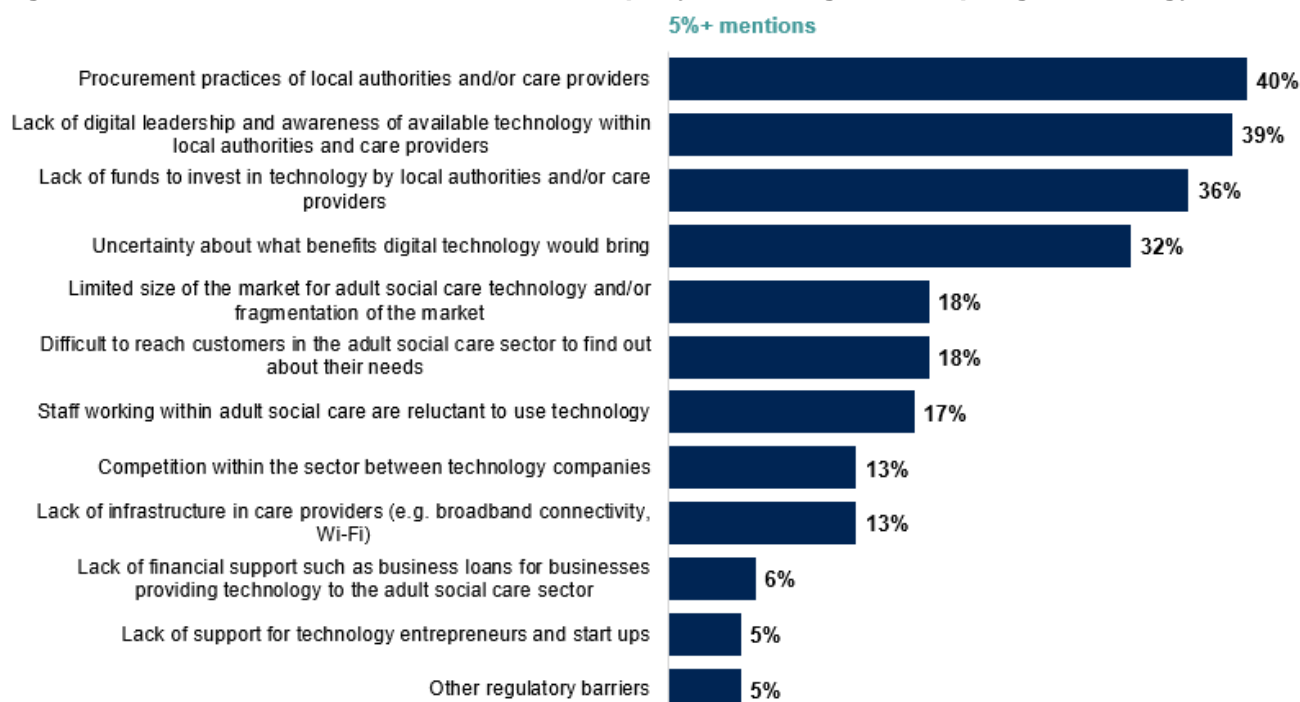
Base: All participants who develop or supply hardware or equipment, software, platforms or apps, services supported by technology, or only supply technology (70) BARR_COMBINED. Thinking about the technology, hardware, equipment or services you develop or manufacture for adult social care, what are the main barriers, if any, within your company to developing this technology?

11.5.2 External barriers

The procurement practices of some local authorities or care providers were seen as one of the main external barriers to the scaling and adoption of technology, along with a need for greater digital leadership in these organisations. In the depth interviews the procurement practices of some organisations were described as being too focused on unit price rather than outcomes or added value, and as adversarial in that they were not geared toward partnership working. In terms of external barriers outside of technology supplier organisations, two fifths (40%) of survey participants said procurement practices of local authorities or care providers were a barrier to scaling and adopting technology (Figure 11.4). Developers of software and apps were more likely to say that procurement practices of local authorities or care providers were a barrier (51% vs 40% overall). A similar proportion of technology suppliers also said a lack of digital leadership and awareness of available technology (39%), and lack of funding to invest in technology by local authorities or care providers (36%) were a barrier.

It is notable that only 1% reported lack of skills as a barrier to the scaling and adoption of technology, whether thinking of the skills of the care workforce or the people with care needs. No one reported on lack of skills among unpaid carers as a barrier.

Figure 11.4: Main barriers outside of the company to scaling and adopting technology



Base: All participants (77)
 BARR_OUT_COMBINED. Thinking about the technology for adult social care what are the main barriers, if any, outside of your company to scaling and adopting this type of technology?

Participants in the depth interviews thought there was a need for an eco-system or digital backbone for the sector to effectively build upon. They did not have a clear vision of where the sector was heading in terms of digital technology, and the intended interconnectivity of systems across ASC and health and social care more broadly. This manifested itself in related aspects such as lack of interoperability and data and coding standards. For example, the health system has standard coding for conditions that are clearly clinically defined which helps in the application of AI¹³⁶ and machine learning. However, technology suppliers who took part in a depth interview did not perceive there to be an

¹³⁶ Artificial Intelligence

equivalent coding structure of similar granularity and applied with the same rigor in ASC, hindering some of the potential for AI application.

Participants felt the combination of budget pressures in ASC and a fragmented customer base can be a barrier to investment in development. They pointed out that the number of small and medium sized organisations in the sector can lead to low average customer size and, in the context of underfunding, potentially relatively low value order per customer. Investment in development would therefore reflect the functionality that can be afforded by the care provider.

A perception of inconsistency of views and expectations between different commissioning organisations and across regulatory bodies was an additional barrier. A key theme for BSCMS suppliers in the depth interviews was having to respond to differing commissioner requirements put upon care providers who buy the solutions. It was also felt that the Care Quality Commission (CQC) has not so far provided enough clarity and consistency on expectations of digital maturity and the move to paperless environments. The requirements of regulatory body local representatives and the local authorities could sometimes appear to be in conflict which resulted in care providers making conflicting demands of the technology supplier. This created challenges for the design of solutions and resourcing differing local configurations during implementation.

“I think one of the key objections we hear is they [care providers] don't know whether investing in our system is going to satisfy the local inspector from the local authority, or the CQC, that they're doing the right thing.” BSCMS supplier

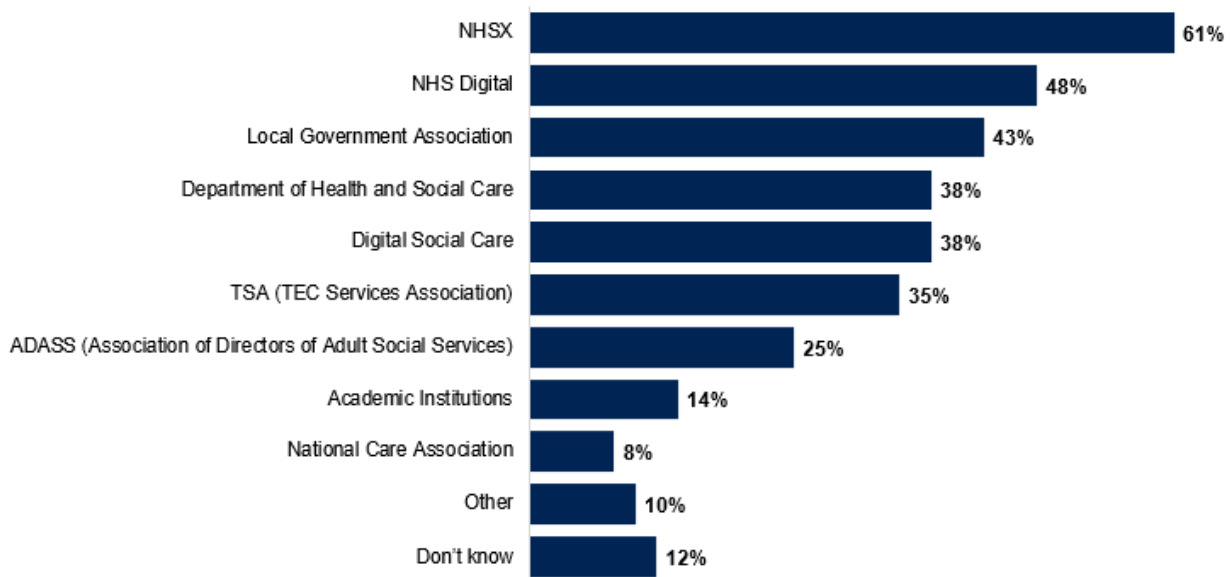
11.6 Enablers to the development and supply of care technology

11.6.1 Support from or collaboration with the public sector

Technology suppliers were asked about their awareness of programmes to support innovation and development of technology for the adult social care sector and who they thought would manage these types of programmes.

NHSX was seen by participating technology suppliers as the main organisation responsible for supporting innovation and development. Around two-thirds of technology suppliers (61%) said that NHSX managed programmes to support innovation and development. Just under half (48%) mentioned NHS Digital or the Local Government Association (43%), while around two fifths thought the Department of Health and Social Care (38%), Digital Social Care (38%) or the TSA (35%) managed programmes to support innovation and development. A quarter of technology suppliers (25%) also said the Association of Directors of Adult Social Care (ADASS) managed this type of programme, while around one in ten said an academic institution (14%) or the National Care Association (8%) managed these programmes.

Figure 11.5: Organisations that technology suppliers thought managed programmes and support around the innovation and development of technology for adult social care



Base: All participants (77)

AWARE_PROG. Thinking about programmes to support innovation and development of technology for adult social care, which of the following organisations do you think manage these types of programmes?

There was limited involvement in public sector collaborative or funded development work by the interviewed technology suppliers. The depth interviews showed that technology suppliers generally undertook their own self-funded development work, and in a competitive environment. One technology supplier had undertaken a Knowledge Transfer Partnership (KTP) on clinical consequences of medication errors and one had participated in NHSX funded programmes. There were more examples provided of collaboratively piloting digital solutions with the public sector as part of gaining credibility for the solution after it had been developed.

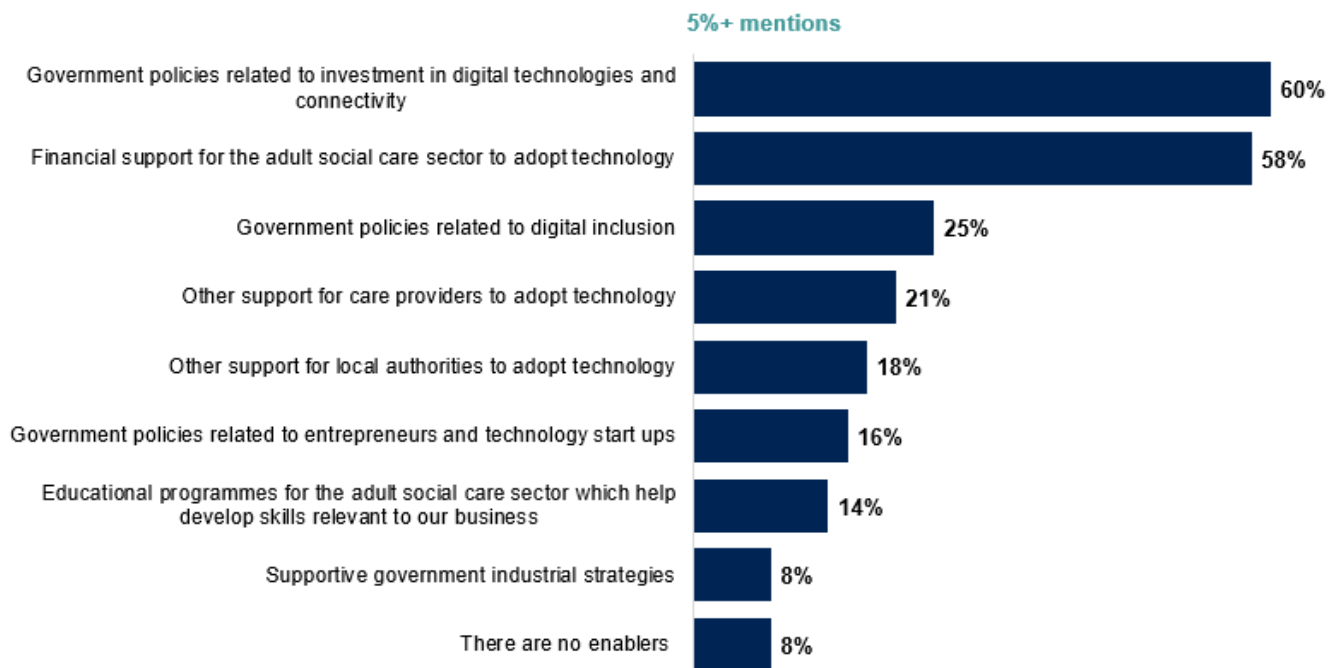
11.6.2 Enablers for the development and supply of technology in ASC

Technology suppliers were asked to think about current government policies and consider which were the main enablers for the development and supply of technology in the adult social care sector.

Government policies related to investment in digital technologies and connectivity, and financial support for the adult social care sector were seen by participating technology suppliers as key enablers to the development and supply of technology. Overall, 60% of technology suppliers said that government policies related to investment in digital technologies and connectivity were an enabler. A similar proportion (58%) said that financial support for the adult social care sector to adopt technology was one of the main enablers.

A quarter (25%) of technology suppliers stated that government policies related to digital inclusion were an enabler to the development and supply of technology.

Figure 11.6: Main enablers for the development and supply of technology for adult social care



Base: All participants (77)

ENABLE_POLICIES. Thinking about current government policies and market conditions, what, if any, are the main enablers for the development and supply of technology for adult social care?

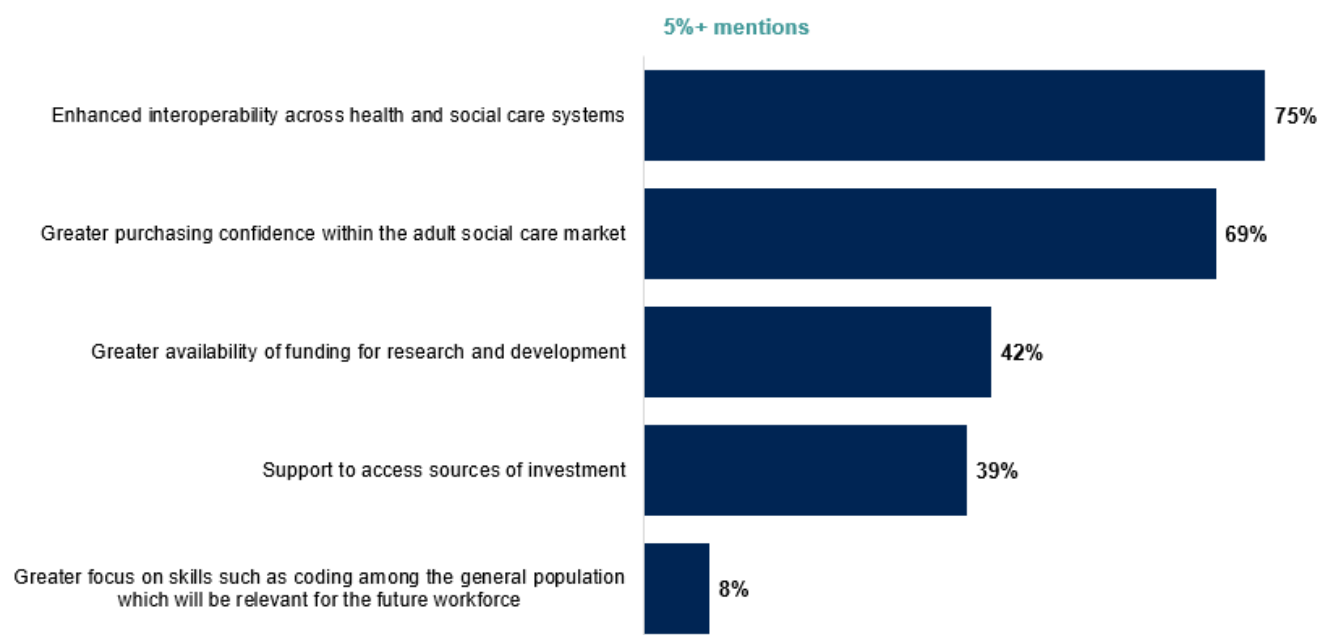
Participating technology suppliers felt that NHSX strategy and policy has the potential to develop a digital backbone for the sector. The interviewed technology suppliers highlighted the importance of a health and social care digital vision and strategy to guide their development of solutions that can leverage the benefits of sharing data across the health and social care system. It was considered particularly important to have the vision of health and social care data and system integration laid out along with links to enablers such as open data standards, interoperability requirements and coding standards for ASC.

“Ensure NHSX drives interoperability and data standards to ensure effective communication between applications.” BSCMS supplier

11.6.3 Support needed to improve the development and supply of technology in ASC

Technology suppliers were asked about the support they would like to see over the next five years to help improve the development and supply of technology for the adult social care sector.

Figure 11.7: Support technology suppliers would like to see to help improve the development and supply of technology for adult social care



Base: All participants (77)

ENABLE_SUPPORT. Thinking about the next five years, what support would your company like to see to help improve the development and supply of technology for adult social care?

Enhanced interoperability and purchasing confidence were areas where technology suppliers would like further support. The majority of technology suppliers (75%) stated they would like to see enhanced interoperability across the health and social care system. Around two-thirds (69%) also said they would like greater purchasing confidence within the adult social care marketplace. Other areas for support included greater availability of funding for research and development (42%), and support to access sources of investment (39%).

In the depth interviews, technology suppliers explained that additional funding was needed for care providers, and people with care and support needs, to adopt digital technology. Their experience was that underfunding in the ASC sector was a key element hindering investment in ASC at the point of care, which could unlock significant cost savings in other parts of the health and social care system. The funding could be through a variety of routes, ranging from ring-fenced technology grants for scaling solutions, to Primary Care Networks, NHS secondary care providers and other parts of the health system funding the investment or providing selected solutions. The latter examples could also be used directly for people with care and support needs living independently and extend the continuing healthcare principles.

Consistency across different commissioning and regulatory organisations, and their staff, was seen as important by participating technology suppliers. In the depth interviews, both BSCMS and SMDT suppliers highlighted the challenges of differing views on data sharing and information governance across organisations and suggested this area would benefit from clear central guidance to realise the opportunities for better care.

Capacity building and support to small and medium size care providers to scale and accelerate digital technology adoption was also described as key. This was proposed by participants in the depth interviews to address the range of issues previously mentioned related to: digital maturity, leadership, ICT infrastructure and support, capacity and capability in project and change management

and workforce digital literacy. It was suggested that this needed to be through resource outside of the care providers. It was also suggested that the resource should support implementation and change within care providers, and aim to provide some transfer of skills in the process to build capacity in the sector. There were differing views as to where this resource would be managed, ranging from NHSX to local authority commissioners, and whether it should be provided free of charge or with some contribution by the care provider. The continued expansion of ASC related solutions covered by NHSX digital technology assessment criteria for health and social care (DTAC) was also mentioned as a route to providing care providers with assurance and support in selecting digital technology and potentially understanding how they can configure a ‘best of breed’ mix of solutions versus one broader solution.

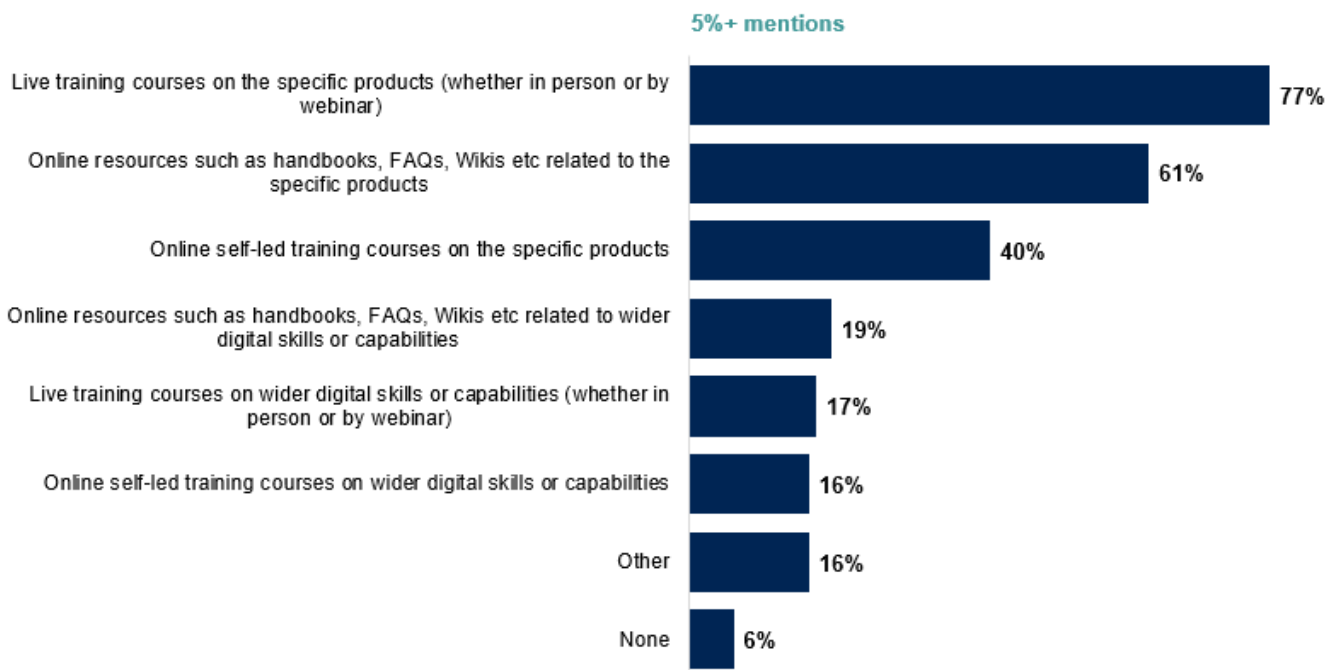
“The sector needs...capacity building and support to SME service providers to enable greater and accelerated adoption.” BSCMS supplier

11.7 Learning and development offered

11.7.1 Learning and development resources

Technology suppliers were asked what, if any, training courses or learning resources they provided to the adult social care sector, both generally and specific to the technology or service they provide.

Figure 11.8: , Training courses or learning resources provided to the adult social care sector in relation to technology or services supplied



Base: All participants (77)
 LEARN_RES. What, if any, training courses or learning resources do you provide to the adult social care sector in relation to the technology or services you supply, or more widely?

Most technology suppliers who took part in the survey reported that they offered live training courses on the specific products they provide either in person or by webinar (77%). Technology suppliers who develop software and apps were more likely to offer live training courses compared to technology suppliers overall (84% vs 77%). Developers of software and apps were also more likely to offer online self-led training courses (53% vs 40% overall).

Around two-thirds (61%) provided online resources such as handbooks and FAQs related to their products. The provision of learning and development resources on wider digital skills was less common than those specific to their products.

“It’s far easier to get your message across in a 10 second or 30 second video than it is to read through the brochure and the manual if you can actually see someone doing it.” SMDT supplier

11.7.2 Skills and capabilities covered in wider digital skills learning and development

Among technology suppliers that provided training for wider digital skills and capabilities, over half offered training about other technology products or about how to help people identify appropriate solutions to meet their needs. In the online survey, 26 technology suppliers said they provided live or online courses for wider digital skills and capabilities. Out of these, 16 technology suppliers provided product or service specific training products or services other than their own. A similar number of suppliers (15) provided training to help course participants understand digital technology solutions and on how to help people identify appropriate solutions to meet their care needs.

Suppliers of wider digital training also reported the following:

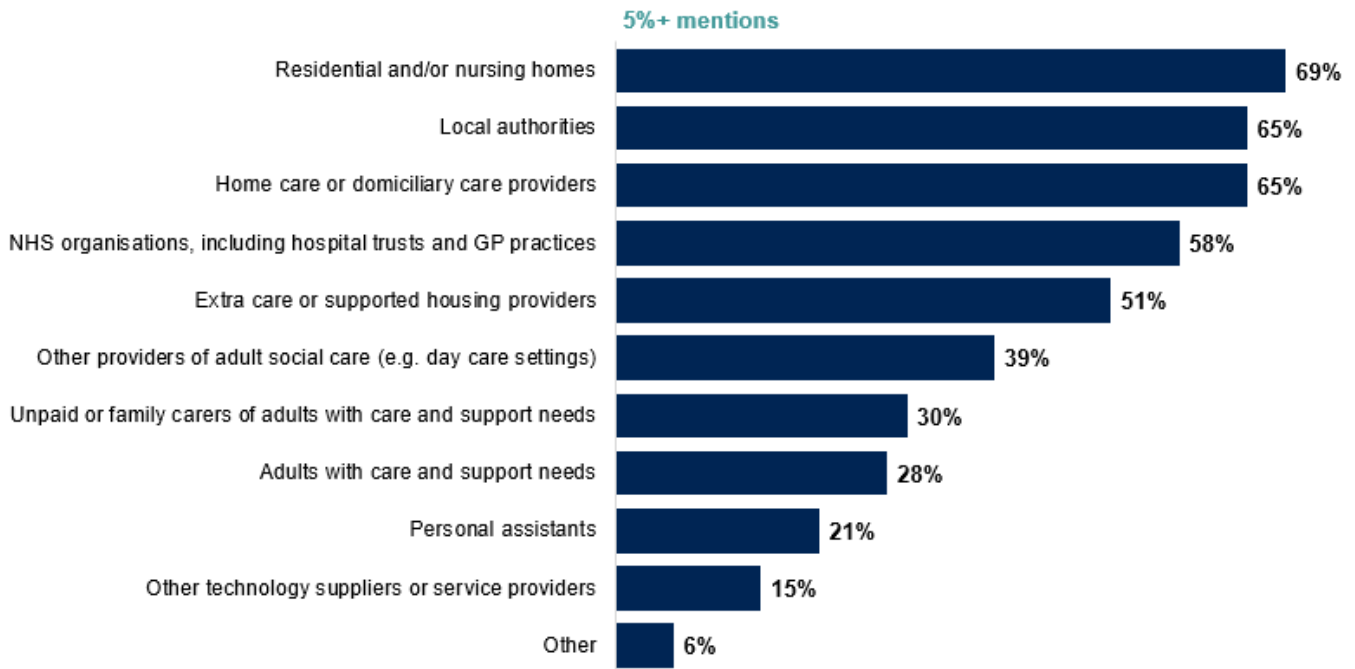
- 13 out of 26 provided training related to hardware and how to use it along with the technology services they provide
- 11 out of 26 provided training on digital maturity and data security
- 11 out of 26 also offered training on general basic digital skills like using the internet, emails, and other office tools.

In contrast to the above online survey responses, none of the 29 technology suppliers interviewed in depth interviews provided training for care provider staff related to wider digital skills or capabilities. These were assumed to be accessed by care providers through other routes.

11.7.3 Customer base for learning and development

Technology suppliers who offered courses or online resources were asked who they delivered their training and learning resources to.

Figure 11.9: Who technology suppliers deliver their training or make learning resources available to



Base: All participants who provide eLearning courses (71)
 LEARN_CUST. Who do you deliver your training or make your learning resources available to?

Most courses and learning resources offered by technology suppliers were delivered to residential and/or nursing homes, local authorities, homecare services or NHS organisations.

Technology suppliers who develop software or apps were more likely to offer training or learning resources to residential or nursing homes than technology suppliers overall (79% vs 69%). Technology suppliers who provide technology to other sectors outside of social care were more likely than technology suppliers overall to say they provided learning and development sources and resources to local authorities (74% vs 65%) or NHS organisations (68% vs 58%).

The range of roles technology suppliers trained varied by the nature of the solution and the care setting.

In the depth interviews the common training audiences for all BSCMS and SMDT technology suppliers in B2B contexts were: frontline care workers or monitoring centre staff; operational and clinical leads like a senior care worker or registered nurse; and registered managers or operations managers. BSCMS suppliers usually trained local back-office staff in their applications. SMDT suppliers operating in a B2C context demonstrated the technology to all or some of: the person with care and support needs, their unpaid carer(s) and care workers.

11.7.4 Experience of providing training

There has been a changing emphasis in the on-site training provided from how to use technology to changing practice.

In the depth interviews technology suppliers observed that, as devices become more familiar to care workers (such as smartphones) and software more app-like and intuitive, the focus of their training has become less on how to use the technology and more on guiding staff through the changes in practice that will come from applying the technology.

“More of our time during implementation is spent on working out the required practice changes and helping the homecare providers’ management implement these. Training in using the system is now much less as it is more intuitive and through smartphones, which most staff are familiar with these days.” BSCMS supplier

Findings from the ASC workforce on learning and development highlight a possible disconnect between the training currently being offered by technology suppliers (i.e. with less focus on how to use tech), and the level of training actually needed by the workforce: there was evidence that the workforce still needed support with ['how' to use technology and training to improve basic digital skills](#).

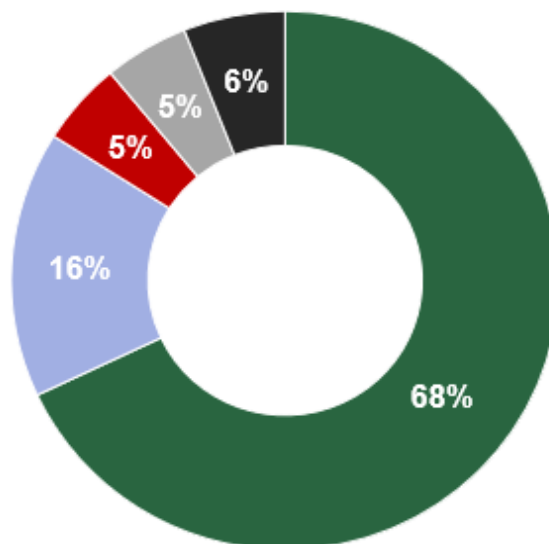
11.8 Impact of COVID-19 on demand for care technology and on business and operations

11.8.1 Impact of COVID-19 on the customer base

Most technology suppliers said their customer base had increased since the COVID-19 pandemic. Developers of software and apps were more likely to say this compared with technology suppliers overall (78% vs 68%). Around one in five technology suppliers (16%) said the number of customers they have has not changed compared to before the COVID-19 pandemic. Only one in twenty (5%) said the number of customers they have has decreased.

However, the depth interviews showed that during the initial stages of the pandemic, technology suppliers experienced a slowdown in enquiries as care providers focused on ensuring safe operational delivery of care and dealing with related matters such as sourcing PPE and staff availability.

Figure 11.10: Change in technology supplier customer base during the COVID-19 pandemic



- The number of customers we have has increased
- The number of customers we have has not changed compared to before the COVID-19 pandemic
- The number of customers we have has decreased
- Don't know
- Prefer not to say

Base: All participants (77)

COVID_CUST. Since the beginning of the COVID-19 pandemic in March 2020 how has your company's customer base changed?

11.8.2 Impact of CoVID-19 on demand

There has been an increased awareness and adoption of digital technology as a result of COVID-19. In the online survey 78% of technology suppliers said they have seen increased demand. Around one in ten (9%) said they had seen a decrease in demand, the same proportion said they have seen no change in demand (9%). During the depth interviews technology suppliers stated they felt ASC care providers had gained confidence in digital solutions through their necessary adoption of measures such

as video calling platforms, electronic ordering with pharmacies, and secure emails to communicate with the NHS during the pandemic. SMDT suppliers also witnessed an increased confidence by families and unpaid carers in using digital solutions.

Demand for care technology solutions initially reduced during COVID-19 and has since increased. SMDT providers in the depth interviews experienced the quickest and largest pick-up in demand as care providers and families realised the need to use the technologies to support safe care. Isolation of individuals and lack of family being able to visit them had forced some of the adoption and implementation of the technology. BSCMS suppliers experienced a more significant pause in demand due to their inability to work 'on-site' as part of any system implementation. The lack of care provider capacity to commit resource to such system implementations was also a factor in slowing demand. However, in the context of increased awareness of the benefits of digital solutions there was increased interest in implementing BSCMS solutions that eliminated the need for unnecessary human interaction, for example visits to people's homes to collect care records, or solutions that could better inform care planning and delivery.

"It has been a game changer for the adoption of technology, with organisations having to adopt out of necessity." SMDT supplier.

There has been an increased demand for a variety of technology. Technology suppliers who reported an increase in demand since the COVID-19 pandemic in the online survey were asked about what technology products customers were purchasing more of during the pandemic.

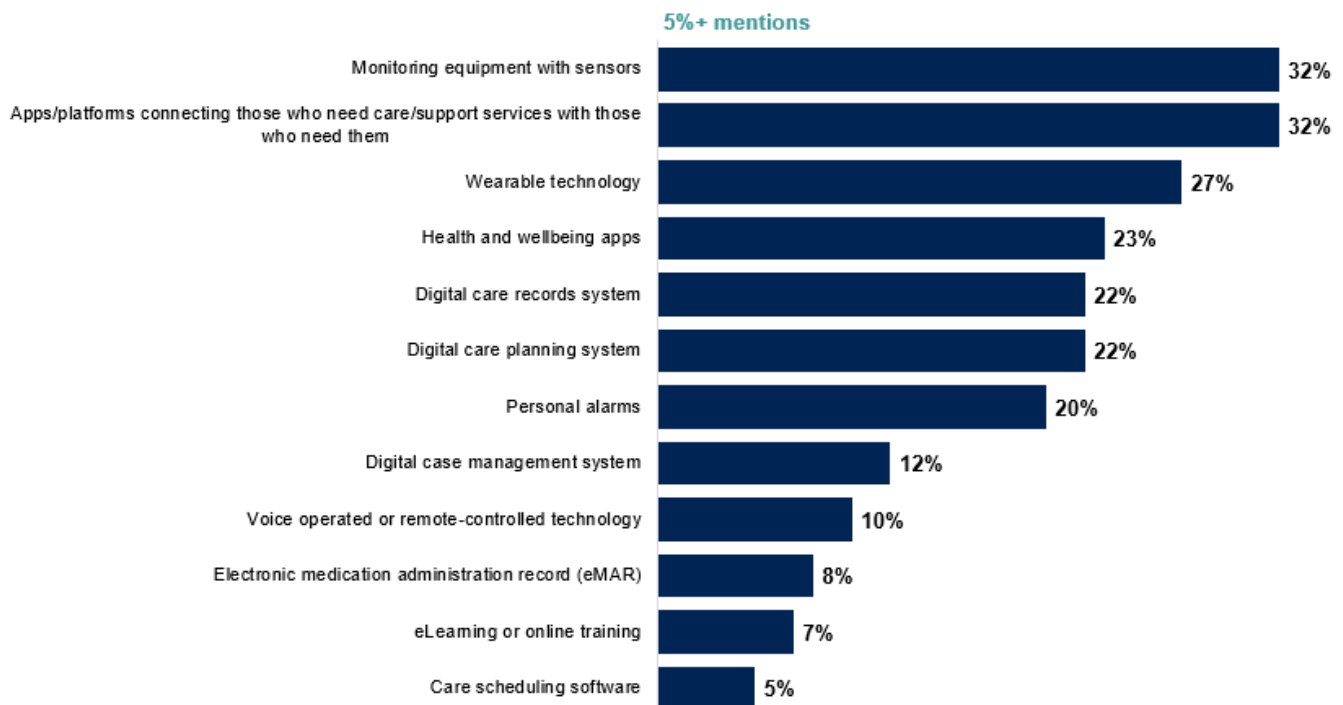
Around one third (32%) reported customers purchasing more monitoring equipment with sensors, and the same proportion (32%) said customers purchased apps or platforms connecting those who provide care and support services with those who need them.

A slightly smaller number of technology suppliers (27%) reported an increase in demand for wearable technology, while just under a quarter (23%) said there was an increase in demand for health and wellbeing apps (medication reminders, care plans or co-ordination, nutrition, exercise and life planning etc).

Around one in five also said there had been increased demand for:

- digital care records system (22%)
- digital care planning system (22%)
- personal alarms (20%).

Figure 11.11: Technology products customers are purchasing more since the COVID-19 pandemic



Base: All participants who say demand has increased since COVID-19 (60)
 COVID_WHAT. Thinking about this increased demand since the beginning of the COVID-19 pandemic, what technology products are your customers purchasing?

11.8.3 Impact of COVID-19 on plans for the development of new technology and services

Around half of technology suppliers have changed their plans for the future development of technology as a result of the pandemic. Among technology suppliers in the online survey who said the COVID-19 pandemic had led to a change in demand, just under half (49%) said it had changed their plans for future development, but a similar proportion (43%) said it had not. Technology suppliers who provided technology to sectors other than the adult social care sector were more likely to say the COVID-19 pandemic had changed their plans (59%) compared with technology suppliers overall (49%). Technology suppliers who said the COVID-19 pandemic had led them to change their plans said it had led them to expand their products or services.

The impact of COVID-19 has validated technology suppliers' existing technology and service development plans for just under half (43%) of the technology suppliers. These technology suppliers did not identify any significant changes to their development plans as a result of COVID-19. It tended to reinforce the benefits of their planned direction of travel.

"...it has provided a platform for greater application of condition monitoring and smart use of this data to improve the effectiveness of care." SMDT supplier.

11.8.4 Impact of COVID-19 on capacity and turnover

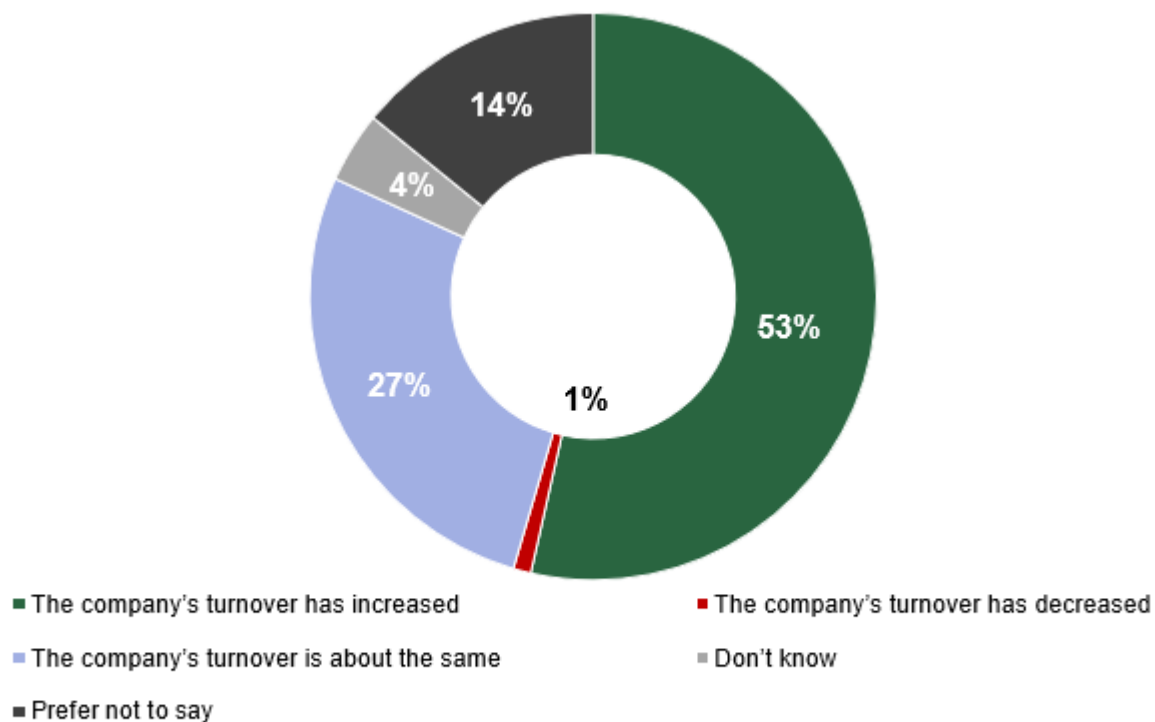
The COVID-19 pandemic has had a mixed impact on technology suppliers' capacity to deliver products and services. Overall, 40% of technology suppliers said it has impacted on their capacity to deliver products and services. Within this, 10% said it had a larger impact and 30% said it had a small impact.

Over half (57%) said the COVID-19 pandemic had not had any impact on their capacity to deliver products and services.

There has been a general move to home-based working. The technology suppliers in the depth interviews reported that the main impact was the migration to largely home-based working for their office-based staff. They were able to offer a 'business as usual' service on this basis. Manufacturers had to address social distancing and other COVID-19 measures to enable continued production. Both BSCMS and SMDT suppliers were more affected by not being able to undertake client 'on-site' installations, though more blended (on-site combined with on-line) solutions to this were increasingly being found.

Technology suppliers in the online survey were also asked about the impact of the pandemic on their turnover. Around half of technology suppliers reported an increased turnover (53%). Developers of software and apps were more likely to say their turnover had increased since the beginning of the COVID-19 pandemic compared with technology suppliers overall (67% vs 53%). Around one third (27%) said it had stayed around about the same.

Figure 11.12: Increase or decrease in company turnover compared to before the COVID-19 pandemic?



Base: All participants (77)

COVID_TURNOVER. Overall, since the beginning of the COVID-19 pandemic, would you say your company's turnover has increased or decreased compared to before the pandemic?

11.9 Future design and development of technology for adult social care

11.9.1 Perceived business opportunities

Leveraging existing digital technologies to level up the digital maturity of the ASC sector was a perceived business opportunity by participating technology suppliers. In the depth interviews technology suppliers considered there was still a fair way to go in levelling up digital maturity across the

ASC sector by utilising existing digital technology. This represented a significant business opportunity in its own right.

Third generation TEC and homecare delivery could be linked to provide a holistic care package, according to participating technology suppliers. To date, TEC service provision and homecare services have largely involved different provider organisations and have had to be procured separately. SMDT suppliers who took part in a depth interview were increasingly in dialogue with homecare providers on a combined offer, which appeared to be aimed at people paying for their own care.

“There are future business opportunities...as part of an outcomes-based solution of care provision.” SMDT supplier

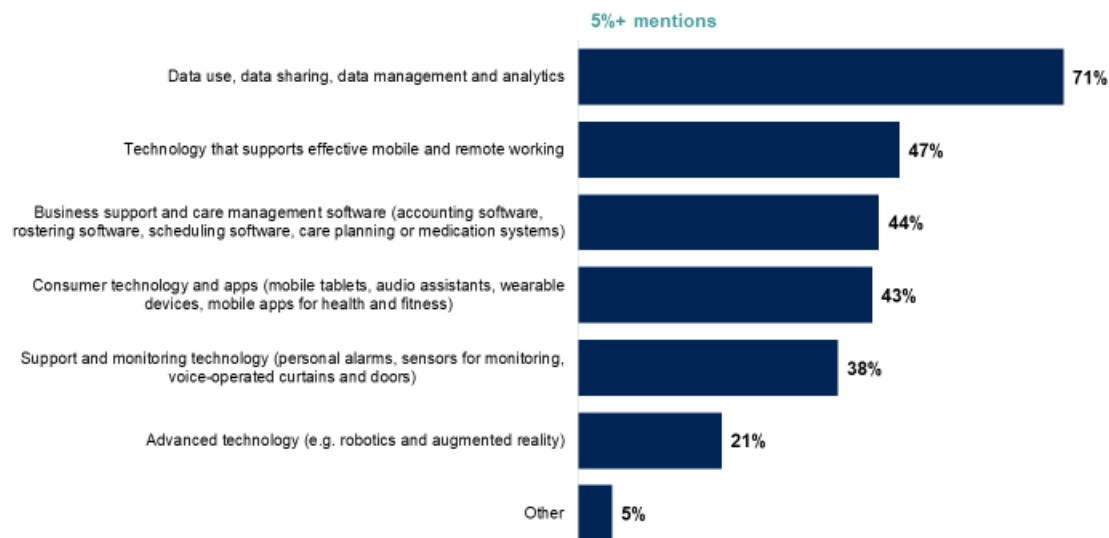
11.9.2 Priorities for the next 5 years

Digital solutions that enable predictive and preventative rather than reactive care will be key according to participating organisations. Technology suppliers who took part in the depth interviews believed there would be a continued focus developing digital solutions that captured a broader set of data and applying data analytics, artificial intelligence or behavioural insights. They thought this would be in all parts of ASC, but an important aspect was full linkage with people's physical health. These were viewed as critical in realising a significant change in supporting independent living for longer and supporting safe hospital discharges and reablement.

In the online survey most technology suppliers (71%) said they would focus on data use, data sharing, data management and analytics. Developers of software and apps were more likely to say this than technology suppliers overall (84% vs 71%). Companies which have been established for 6 to 20 years were also more likely to say they will focus on data use, data sharing, data management and analytics (87%) compared with technology suppliers overall (71%).

Just under half (47%) said they will focus on technology that supports effective mobile and remote working. A similar number of technology suppliers also reported focusing on business support and case management software (44%), consumer technology and mobile apps (43%), and support and monitoring technology (38%).

Figure 11.13: Types of technology suppliers will focus its time and resources on in the next 5 years



Base: All participants (77)

FUT_FOCUS. In the next five years, what types of technology do you think your company may focus its time and resources on?

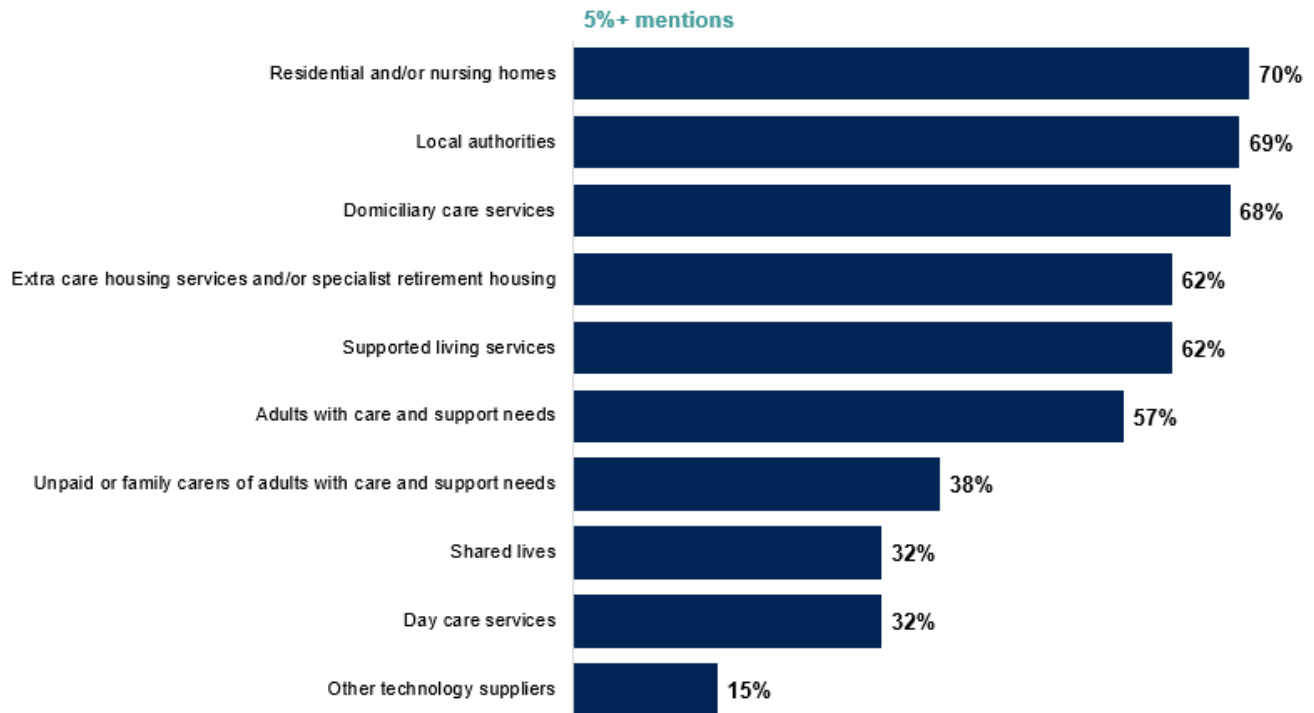
It should be noted that interviews with local authorities revealed some differences in their priorities for the future, with many local authorities reporting a need for improvements to current care management systems and their interoperability (see [section 10.3.2](#) and [section.10.7.2](#)).

Digital solutions must replace current analogue TEC equipment according to participating technology suppliers. Participants in the depth interviews thought that the switching off of the UK's public analogue telephone network in 2025 would affect much of the first and second-generation analogue TEC equipment. SMDT service providers and care providers using these technologies will need to migrate to digital Voice over Internet Protocol (VoIP) solutions. This, in turn, is likely to encourage adoption of the latest third-generation TEC solutions, as care providers may realise the opportunities and benefits these could bring when migrating from analogue to VoIP solutions.

11.9.3 Future customers

Technology suppliers in the depth interviews suggested that care provider consolidation could achieve the critical mass needed to invest in digital solutions. The technology suppliers interviewed thought that opportunities would come from consolidation of the care provider market, which would bring some scale to organisations and give them the critical mass needed to invest in and realise the benefits of digital solutions, and BSCMS solutions in particular.

Technology suppliers in the online survey expected the main customers for the technology they planned to develop in the future would be care homes, homecare services and local authorities. Most technology suppliers (70%) said it would be aimed at residential and/or nursing homes, with a similar proportion stating their technology would be aimed at local authorities (69%) and homecare services (68%).

Figure 11.14: Types of customers technology will be aimed at

Base: All participants who will focus on multiple types of technology (74)
 FUT_CUST. What type of customers do you think this technology will be aimed at?

A third of technology suppliers who said they would focus on more than one type of customer thought local authorities would be their main customer over the next five years. Technology suppliers who provided technology to other sectors were more likely to say their main customer would be local authorities than technology suppliers overall (43% vs 30%).

One in five (21%) said residential or nursing homes would be their main customers and a similar proportion (18%) said adults with care and support needs would be their main customers. Developers of software and apps were more likely to say that residential or nursing homes would be their main customers over the next five years compared to technology suppliers overall (34% vs 21%). One in ten (11%) reported that their main customers will be homecare services.

Business to consumer sales and customer choice were expected to become increasingly important by participating technology suppliers. Among participants in the depth interviews, the greater adoption of SMDT solutions by people who pay for their own care and their families as a result of COVID-19 and the convergence of consumer devices and care technology was anticipated to lead to increased influence and size of this part of the market.

“We’re working a lot more with smarter technology, in terms of actually using things like Alexas and Google Homes, and things like that, in terms of managing people’s needs.” SMDT supplier

11.9.4 Considerations informing business planning

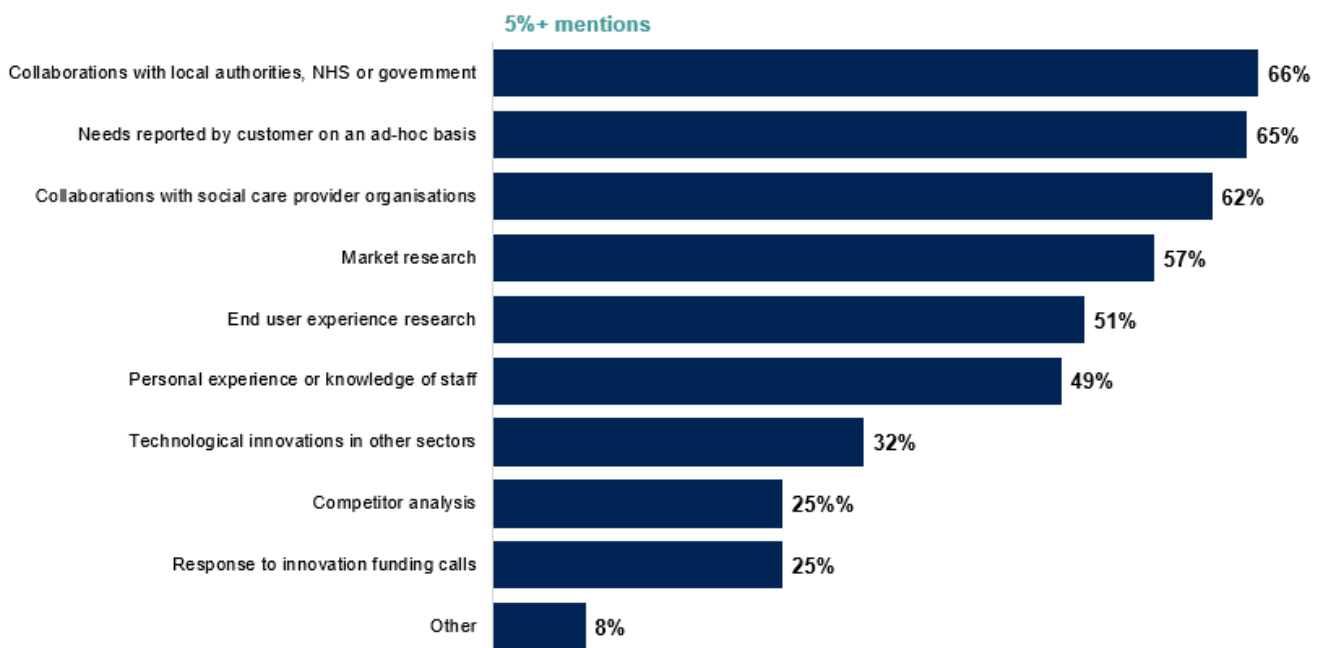
Two-thirds of technology suppliers made their decisions about the future based on collaboration and ad hoc feedback. Technology suppliers in the online survey were also asked how they decided which types of adult social care technology to focus on, and the main customers for that technology. Around two-thirds (66%) said they decided through collaboration with local authorities, NHS or government. Technology suppliers who provided technology to other sectors were also more likely to say

they decided through collaboration with local authorities, the NHSX and government than technology suppliers overall (74% vs 66%).

A similar proportion (65%) said that needs were reported by customers on an ad hoc basis. Companies which had been established for 6 to 20 years were more likely than technology suppliers overall to say they decided through ad hoc feedback from customers (80% vs 65%).

Around two-thirds of technology suppliers (62%) worked in collaboration with social care provider organisations to decide on the technology and customers they would focus on. Over half used market research to help make their decisions (57%) or carried out user experience research (51%) while just under half relied on their or their staff’s knowledge (49%).

Figure 11.15: How technology suppliers decide which types of adult social care technology and customers to focus on in the future



Base: All participants (77)
 FUT_DECIDE. How does your company decide which types of adult social care technology and customers to focus on in the future?

Technology suppliers interviewed felt customer engagement and policy and technology horizon scanning informed strategic planning. In the depth interviews, technology suppliers described strategic planning and investment processes that considered typical Political, Economic, Social, Technological, Environmental and Legal (PESTEL) analysis, with a particular focus on the health and social care interface. This was complemented by customer engagement and feedback to guide decisions on investment.

“It does come down to personal investment of the board and the leadership team that this is what we believe is going to happen and so we have to stump up based on our opinion at the end of it.”
 BSCMS supplier

11.9.5 Support needed for business to implement their plans

Technology suppliers in the research felt that NHSX strategy and policy could result in a digital backbone for the sector. This point was re-iterated by technology suppliers in the depth interviews as

giving a firmer context for their future developments. Some of this work had already happened in the health system but was felt to be less developed for the ASC sector.

Participating organisations also felt that support would help to identify appropriate areas for collaboration and co-production. Technology suppliers directly involved in the field highlighted the cost of machine learning expertise and the situation in which many smaller companies were exploring application of artificial intelligence and machine learning in the ASC sector. It was suggested in the qualitative interviews that there was currently duplication of effort in this space for similar care settings or needs circumstances, and that NHSX or another appropriate body could facilitate collaboration in this field to reduce costs, risks and time to market.

12 Conclusion

This chapter explores the overall aims of the research and whether these have been met. In doing so, it outlines remaining evidence gaps that will require further investigation. It also comments on how the recommendations will be used going forward.

12.1 Why the reviews were commissioned and what they involved

As noted in the introduction to this report, NHSX commissioned two interrelated reviews; one exploring the adoption and scalability of digital technology in ASC (technology review) and the other focused on the digital skills and capabilities of the ASC workforce (digital skills review).

The reviews were commissioned because of the need for a stronger evidence base for the use of digital technology in the ASC sector. Although it is recognised that digital technology can play a vital role in the delivery of adult social care across the sector, this evidence tended to be anecdotal or specific to a particular context such as a care service or geographic location. There was limited evidence related to the specific barriers to technological adoption, the issues around supply and demand for digital technology and what support may be required to make greater use of digital technology. Similarly, there was also an evidence gap around the digital skills and capabilities of the ASC workforce. This included attitudes towards and perceptions of digital technology among the workforce, current digital skills and capabilities, how they would like to use digital technology in their work and what future needs there may be for learning and development.

To meet the aims of the research outlined above and to provide evidence that covers these gaps, the reviews were conducted with a range of key groups involved in ASC and digital technology provision for ASC. This ensured that a well-rounded perspective across the sector was captured. This included the ASC workforce (care workers, registered managers, registered nurses, social workers, occupational therapists and others), care providers, local authorities, suppliers of digital technology and digital L&D, and people with care and support needs and unpaid carers.

12.1.1 How the reviews met their objectives

Through including the perspectives of different groups involved in adult social care and a mix of quantitative survey and qualitative methods, including case studies of effective implementation of digital technology or skills development, the research was effective in gathering evidence on the key research questions. Clear findings emerged on barriers and enablers to digital technology adoption and scaling by local authorities, care providers, the workforce and people with care and support needs and unpaid carers; the current skills and capabilities of different parts of the workforce; and future learning and development needs. Particularly for the care provider and workforce elements of the research, sample sizes were sufficient to explore differences by role, type of care and other characteristics of organisations.

Through the active engagement of an expert reference group with representatives from across the sector and collaborative working between Ipsos MORI, the Institute of Public Care (IPC) and Skills for Care, which brought a range of expertise to the research, the outputs include some clear recommendations on the issues raised by the research. These recommendations are relevant not only to NHSX but to organisations within adult social care and those developing or supplying digital technology to the sector.

12.2 Evidence gaps and further research

Despite the extensive findings and recommendations of this research, there are some gaps in the evidence and further research may be required to cover some of the subjects and audiences that fell outside the scope of the two reviews or where there were limitations in what could be covered here. A recommendation was made to conduct more research in these areas and/or with these audiences.

12.2.1 Out of scope in the research

Neither review included health services, and although care services delivered within housing with care (extra care housing and supported living) were within scope, the review did not consider housing itself. Therefore, further research will be required with these audiences to understand digital technology adoption and digital skills development at the intersections of social care, health and housing. Furthermore, the research focused exclusively on adult social care and the role of digital technology in children and young people's social care has not been considered.

12.2.2 In scope but not directly included

Because of the constraints related to timings and budget for both reviews, some audiences were not directly invited to contribute to the reviews, though the services they provided were in scope and considered in interviews with others. Those groups which were not directly interviewed included:

- **Social prescribers and voluntary and community sector (VCS) organisations providing information and advice about care and support.** They were not included as an audience, but efforts were made to 1) include them in the case studies where relevant, 2) ask people with care and support needs and unpaid carers about any information, advice, and guidance they may have received from VCS organisations and social prescribers regarding TEC¹³⁷ solutions, and 3) ask local authorities about the role of VCS organisations and social prescribers in the rollout and dissemination of care technologies locally. These points were included in the depth interviews with these audiences.
- **Clinical Commissioning Groups (CCGs) and Integrated Care Systems (ICs).** ICs play a key role in the integration of health and social care by creating partnerships between organisations involved in meeting the health and care needs of citizens across a local area (e.g. local authority, hospital trust, social care providers, voluntary organisations etc). However, both reviews only focused on the adult social care sector as it was felt a focus on local authorities was the best approach as they are responsible for commissioning adult social care services in their locality and for assessing the requirements of those with care needs. It should be noted that some health staff were included in the workforce survey, particularly registered nurses.
- **Informaticians and data analysts working in social care.** Stakeholders involved in the scoping phase of the reviews noted that collaboration can be common between those who work in these roles, senior leadership and the workforce. While these groups were not included in the mainstage of the research, collaboration between and within organisations was a focus of the case studies. A finding emerging from the research is the role of digital technology in generating data that can be used to predict or prevent care needs, but the full potential of these opportunities relies on the involvement of people with skills in the management and analysis of such data.
- **Activity coordinators working within care providers.** The skills review focused on key audiences providing direct care, meaning those in other roles, such as care home activity

¹³⁷ Digital technology enabled care.

coordinators, were not included. However, staff in such roles can also contribute to the wellbeing of people with care and support needs through the use of technology. For example, activity coordinators may help residents to connect remotely with their families and friends, play games and access apps on tablets. They can also act as digital champions within care settings and help to upskill the care staff on how to use tablets.

Further research could therefore be conducted with these audiences to explore the barriers they face in promoting the adoption and scalability of digital technology in ASC, possible ways of overcoming them, and their perspectives on the digital skills of the ASC workforce.

12.2.3 Limitations in findings from groups included in the research

Limitations in sample size or the methodology mean there is scope for further research or engagement with some of the audiences included in the reviews, in particular with local authorities.¹³⁸ Therefore, in light of local authorities' pivotal role in the adoption and scalability of digital technology in ASC, any policy decisions arising from this research that are expected to impact or affect local authorities should ideally be discussed in detail with local authorities and organisations representing local government before being implemented, to ensure they are appropriate, balanced, and actionable.

The sample size for digital technology suppliers was relatively small, reflecting the small size of this sector, which limited the scope for sub-group analysis. Any implementation of recommendations needs to consider how these may differ for different types of digital technology provider in terms of whether they provide services or digital technology and whether it is business or management digital technology, care and support digital technology or more general consumer digital technology.

In addition, people with care and support needs and unpaid carers were involved in qualitative research but not a survey. The recommendations suggest co-production and involvement with these groups in the development and adoption of digital technology. We recommend further research with these groups to understand their needs and views prior to this future co-production process.

12.2.4 Gaps in subject matter

Further research will also be needed to explore the economic costs and benefits of digital technology to support the development of business cases and greater investment by local authorities and care providers, as well as informing decisions regarding capital funding. However, this will be a complex task as there is a need to consider the added value beyond the financial return and productivity, such as the social value and the contribution to quality of life. There may also be benefits that are realised up-stream or in different sectors, such as reduced emergency hospital admissions. Although questions about benefits and costs were raised with participants, this was at a relatively surface level and there is scope for a more in depth and evaluative exploration of the costs and benefits involved in all parts of the process of adopting digital technology.

The reviews only touched on advanced technology briefly. As technology is constantly developing, the approach used to facilitate the adoption and scalability of technology (including training and support for staff) will need to evolve to keep up with new developments.

¹³⁸ The online survey with local authorities received only 24 responses and of these only 3 included responses to the sections related to learning and development specifically. This can be explained by the lack of a sample frame of named local authority commissioners and learning and development leads in ASC, combined with the complexity of the survey. Depth interviews were conducted with a diverse group of 17 local authorities and the findings provide a rich understanding of the issues facing local authorities in adopting digital technology in ASC.

12.3 Methodological limitations

It should also be noted that there are some limitations to the research conducted in both reviews. For example, as there is no comprehensive sampling frame and profile information about digital technology suppliers and digital technology service providers working in the ASC sector, it is not possible to determine how representative the responses received to the online survey of digital technology suppliers are. Similarly, the telephone survey with care providers is only representative of care providers who are registered with the CQC, as the CQC list of registered providers was used to draw the sample and set quotas for the survey. We are therefore unable to comment on the use of digital technology among care providers who are not registered with the CQC. For example, personal assistants who are directly employed by people with care needs could take part in the workforce survey but not the care provider survey. Next, the findings did not show any significant differences by ethnicity. This does not necessarily mean that there are no differences between ethnic groups, but that the sample sizes did not allow this level of sub-group analysis. A recommendation to conduct additional research with a focus on ethnicity has been made to that effect.

For the workforce survey an online mode was used to ensure as many people could participate as possible within the project budget, with flexibility about when they completed it. This approach also allowed invitations to take part to be shared across the sector, given the absence of a sample frame for the ASC workforce.¹³⁹ Participants without online access or who were not confident completing an online survey could potentially have been excluded from the responses. This limitation was mitigated by offering the option for all audiences to call in and participate by telephone if they were unable to take part online or preferred not to. Nonetheless, findings related to access to and use of digital technology should be understood in the context that most participants were responding to the survey online.

12.4 Next steps

Looking forward, the recommendations from the reviews will be used to guide the activities of organisations in the ASC sector over the next few years. The research has been commissioned by NHSX, but the findings and recommendations are relevant to a wide range of organisations including, but not limited to, DHSC and other government bodies; local authorities; care providers; members of the workforce; organisations representing different groups in the sectors such as the LGA, ADASS and umbrella organisations for providers; NHS organisations; people with care and support needs and unpaid carers. The findings will also be valuable to the digital technology sector and digital skills L&D providers in developing and providing solutions for ASC. Through the expert reference group there is already strong engagement with the research and findings, but the intention is that the research will provide insights and clear ideas for action for stakeholders beyond those already involved in the research. The recommendations have not been assigned to specific stakeholders, instead organisations can consider the extent to which recommendations are relevant to them and where their priorities lie in contributing to the adoption of digital technology in the sector and the associated learning and development.

Some of the recommendations involve collaboration and action across the sector at a high level. This includes working toward developing a digital eco-system or backbone for digital technology in ASC with consistent standards and infrastructure; strengthening the care market to give customers more purchasing confidence and suppliers a clearer customer base with more consistent requirements; raising awareness of how digital technology can help improve outcomes and quality of care in ASC; and greater

¹³⁹ Registered managers were invited to take part by telephone as they could be sampled from the CQC sample frame, but they had the option to take part online if they preferred.

investment following the announcement of the raise in national insurance to ensure benefits are realised throughout the sector.

It will also be important to consider the findings and recommendations of the two reviews alongside other research conducted on these topics. A wide range of other research and work has also been, and is being, conducted on digital technology and skills in ASC. The rapid evidence reviews, which were carried out as part of the scoping phase for the two reviews, bring together much of this available evidence.¹⁴⁰ More recent examples of relevant projects, carried out since the evidence reviews include:

- TSA/ADASS commission on the role of digital technology in a reformed ASC system, <https://www.tsa-voice.org.uk/campaigns/tsa-and-adass-launch/>
- The Care Technology landscape review conducted by Future Care Capital <https://futurecarecapital.org.uk/research/care-tech-landscape-review/>
- Policy Connect commission on Smart Homes and Independent Living <https://www.policyconnect.org.uk/news/policy-connect-launches-smart-homes-and-independent-living-commission>. Ongoing research about Digital Care Records being carried out by NHSX
- Digital Social Care – Digital Maturity in the Social Care Sector: <https://www.digitalsocialcare.co.uk/resource/digital-readiness-report-june-2021/>
- DHSC policy paper ‘Data saves lives’ setting out how data will be used to improve the health and care of the population in a safe, trusted and transparent way <https://www.gov.uk/government/publications/data-saves-lives-reshaping-health-and-social-care-with-data-draft>
- The All Party Parliamentary Group on adult social care (APPG) vision for ASC, which includes a vision for technology and digital transformation <https://static1.squarespace.com/static/5cab2514d24e55000163e258/t/6149f63b250f7f54e7f9475a/1632237118567/A+Vision+of+Social+Care.pdf>
- The inquiry on Technology for our Ageing Population: Panel for Innovation (TAPPI) published in October 2021 [TAPPI - Design - Topics - Resources - Housing LIN](#)

¹⁴⁰ The digital technology rapid evidence review can be found on the [IPC webpage](#) and the skills rapid evidence review can be found on the [Skills for Care webpage](#).

13 Glossary

Advanced digital technology (ADT) – Robotic digital technology (e.g. robotic walkers), virtual reality applications, sensory digital technology which recreates physical feelings using haptic digital technology

ASC – Adult social care

Business support or care management systems (BSCMS) – Financial accounting software (e.g. QuickBooks, Sage), HR management software, digital care rostering software, digital social care records or planning systems, electronic medication administration records (eMAR).

Consumer digital technology or apps (CTA) – Smartwatches (e.g. Garmin, FitBit, Apple Watch), audio assistants (e.g. Amazon Alexa or Google Home), video calling software (e.g. Zoom or MS Teams), health and wellbeing apps.

Co-production – a way of working, whereby everybody works together on an equal basis to create a service or come to a decision which works for them all.

Digital maturity – an organisation's ability to adopt, manage, implement and use digital technology.

Extra care housing – Purpose-built (or purpose adapted) single household accommodation that is owned or occupied under an occupancy agreement. The accommodation is in a building or campus of similar households specifically designed to facilitate the delivery of care to people, either now or when they need it in the future.

Homecare – Care delivered to people living in a household accommodation that is owned or occupied by the person receiving care, and that occupation is entirely independent of the care arrangements. It can also be known as domiciliary care.

Information governance – the management of information by implementing processes, roles, controls and standards that ensure information is treated securely and appropriately.

L&D – Learning and Development

OT – Occupational therapist

Registered managers – the person appointed by a CQC registered provider to manage the regulated activity on their behalf, where the provider is not going to be in day-to-day charge of the regulated activities themselves. In most cases, a provider will need to have one or more registered managers.

Regulated care provider – An organisation that has been registered with CQC to provide a regulated care activity.

Shared Lives – Accommodation that is lived in under an occupancy agreement, where the premises are owned or tenanted by another person who has been approved as a carer by a 'Shared Lives' scheme that is registered to provide 'Personal care'.

Support and monitoring digital technology (SMDT) – Personal alarms, monitoring equipment with sensors, voice operated or remote-controlled digital technology (e.g. voice operated doors or curtains), customer facing apps or platforms to help users keep updated with care.

Supported living – Schemes that provide personal care to people as part of the support that they need to live in their own homes.

Our standards and accreditations

Ipsos MORI's standards and accreditations provide our clients with the peace of mind that they can always depend on us to deliver reliable, sustainable findings. Our focus on quality and continuous improvement means we have embedded a "right first time" approach throughout our organisation.



ISO 20252

This is the international market research specific standard that supersedes BS 7911/MRQSA and incorporates IQCS (Interviewer Quality Control Scheme). It covers the five stages of a Market Research project. Ipsos MORI was the first company in the world to gain this accreditation.



Market Research Society (MRS) Company Partnership

By being an MRS Company Partner, Ipsos MORI endorses and supports the core MRS brand values of professionalism, research excellence and business effectiveness, and commits to comply with the MRS Code of Conduct throughout the organisation. We were the first company to sign up to the requirements and self-regulation of the MRS Code. More than 350 companies have followed our lead.



ISO 9001

This is the international general company standard with a focus on continual improvement through quality management systems. In 1994, we became one of the early adopters of the ISO 9001 business standard.



ISO 27001

This is the international standard for information security, designed to ensure the selection of adequate and proportionate security controls. Ipsos MORI was the first research company in the UK to be awarded this in August 2008.



The UK General Data Protection Regulation (GDPR) and the UK Data Protection Act (DPA) 2018

Ipsos MORI is required to comply with the UK GDPR and the UK DPA. It covers the processing of personal data and the protection of privacy.



HMG Cyber Essentials

This is a government-backed scheme and a key deliverable of the UK's National Cyber Security Programme. Ipsos MORI was assessment-validated for Cyber Essentials certification in 2016. Cyber Essentials defines a set of controls which, when properly implemented, provide organisations with basic protection from the most prevalent forms of threat coming from the internet.



Fair Data

Ipsos MORI is signed up as a "Fair Data" company, agreeing to adhere to 10 core principles. The principles support and complement other standards such as ISOs, and the requirements of Data Protection legislation.

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About Ipsos MORI Public Affairs

Ipsos MORI Public Affairs works closely with national governments, local public services and the not-for-profit sector. Its c.200 research staff focus on public service and policy issues. Each has expertise in a particular part of the public sector, ensuring we have a detailed understanding of specific sectors and policy challenges. Combined with our methods and communications expertise, this helps ensure that our research makes a difference for decision makers and communities.

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