SOCRATES LOGO

FULL/LONG TITLE OF THE STUDY: EVALUATING THE IMPLEMENTATION OF DIGITAL SOCIAL CARE RECORDS

SHORT STUDY TITLE / ACRONYM: Digital Social Care Records Evaluation (DiSCRE)

PROTOCOL VERSION NUMBER AND DATE: V2.2, 05/06/24

KEY STUDY CONTACTS

Principal Investigator(s)	Joanne Westwood (UCLan, Professor of Social Work Education) Juliette Malley (LSE) (Co-PI, SOCRATES co-director)
Study team	Nicola Farrelly (UCLan, Research Fellow in Evaluation) Catherine Henderson (LSE, Assistant Professorial Research Fellow) Cath Larkins (UCLan, SOCRATES co-director and Co-production Lead) Wagner Silva-Ribeiro (LSE, Research Officer and expert in review methods) Martha Snow (LSE, Research Fellow in Evaluation) Nicole Steils (King’s, Research Fellow in Evaluation)
Collaborators	Three people working in the sector and three people drawing on social care have been recruited to a Evaluation Advisory Network for this study. They have advised on the protocol and expressed a commitment to ongoing involvement. This network is likely to include further collaborators as the coproduction activities develop through involvement of sites.

PROJECT START DATE: 23rd October 2023

PROJECT END DATE: 31st March 2025

RESEARCH REFERENCE NUMBERS

FUNDER Number:	NIHR163639
Ethics review number(s): (phase 1)	23/HRA/4966
Ethics review number(s):	IRAS 334768

Ethics review number (phase2)
24/LO/0204

Ethics review number :

IRAS 335300

Funder acknowledgement / disclaimer statement: This project is funded by the NIHR HSDR Programme (NIHR163639). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care

Digital Social Care Records Evaluation (DiSCRE)

STUDY SCIENTIFIC SUMMARY

Background

For some time now policymakers have argued for the need to digitise health and social care records. In the social care context, the government introduced a target to ensure that 80% of Care Quality Commission (CQC) registered providers are using electronic care planning solutions by March 2024. Alongside the target government has made available funding and resources to support care providers with this transition from paper records to digital social care records (DSCRs). Despite the available funding and resources many care providers have not yet adopted DSCRs. Some people have expressed concerns over the potential for DSCRs to further exclude already marginalised groups of people and exacerbate existing problems. There is an opportunity for an evaluation of DSCR implementation that enhances understanding of how to attend to equality, diversity and inclusion, generates evidence about aspects of the business case for care providers, and supports local areas to deliver on the digitalisation agenda.

Research question

The evaluation addresses five research questions:

1. Within which contexts is digitisation of social care records happening and why?
2. What are the expectations, experiences and consequences of implementing DSCRs?
3. How do people experience using specific features of DSCRs within care relationships?
4. What are the experiences and consequences of DSCR implementation for people in different social categories?
5. What are social care providers' economic and financial considerations in implementing DSCRs?

Aims and objectives

The aim is to generate timely evidence to help local areas and organisations to implement DSCRs within adult social care provider organisations, in a way that delivers the greatest benefit for the most people. Specifically objectives relate to generation of evidence about

1. people's experience of using specific features of DSCRs within care relationships
2. the expectations, experiences and consequences of implementing DSCRs for people, organisations and systems, and how expected benefits can be realised.
3. differences in the experiences and consequences of DSCR implementation for people in different social categories, and how organisations can better target support, redress inequities, and develop more inclusive practice
4. the business case for adoption of DSCRs in the current context by care homes and home care organisations.
5. the applicability of the non-adoption, abandonment, scale-up, spread, and sustainability (NASSS) framework to the social care context, and examining whether there is a need for adaptation.

Methods

This is a theory-based rapid cycle evaluation, involving two cycles of data collection and feedback to the study sites. To evaluate the implementation of DSCRs by care providers, we adopt a multiple case study design, recruiting 30 care home and home care providers in total as case studies across four Integrated Care Systems. To manage resources and risks to delivery within our rapid timescales the case studies will be carried out to differing depths. In the first cycle of data collection and analysis we will examine DSCR implementation from a senior leadership perspective for each case. The second cycle of data collection and analysis will involve a 'deep dive' to understand DSCR implementation in a sample of ten providers from a broader range of perspectives (including people who draw on care). We will use a range of methods including document analysis, interviews, focus groups and questionnaires. Data collection and analysis will be guided by the NASSS. Data will be analysed and compared across cases on an ongoing basis using a tabling approach known as RREAL Rapid Assessment Procedure (RAP) sheets.

We give a central role to cocreating in this evaluation aiming to involve the public in the maximum number of elements of each study possible within the time, relationships and resources available. We have worked with members of the public and social care professionals who are part of the SOCRATES network to develop the focus and methods proposed in this protocol. We will ensure their ongoing involvement in refining methods, analysing findings, making recommendations and creating and sharing outputs. We will employ some network members as peer researchers.

Timelines for delivery

The project will start in October 2023 and complete in March 2025.

Anticipated impact and dissemination

The evaluation will produce rapid evidence to support local areas to deliver on the social care digitalisation agenda. This will include evidence to inform people who draw on social care, their families, workers and commissioners. We will be guided by members of the SOCRATES network in developing knowledge exchange activities, in addition to findings summaries and workshops with sites to inform action. Given the use of NASSS and the modern features of DSCRs we also expect this evaluation to provide insights of value to an international audience with an interest in the implementation of digital information systems in care-related areas of practice. We will share findings in journal articles and conferences.

PLAIN ENGLISH SUMMARY

This evaluation is about how digital or electronic records are being used when adults are receiving care in their own homes or in residential homes. Care records are written notes about someone's health and wellbeing and the treatment or support they have been receiving. Organisations that provide care for adults are being encouraged to record information digitally, instead of on paper. This change in the way things are done is being encouraged because it can mean information can be shared more easily between health and social care and be used to improve people's lives.

People make different arguments about going digital. Some people think moving from paper to digital care records is a good way to help involve adults and their chosen family members. They think that care will become more personalised. But other people think that there is slow progress in going digital, and that digital records will not work well for everyone. Not much research has looked into the experiences of care workers, or of people who draw on adult care and their families.

This evaluation aims to help organisations that provide care for adults to use digital care records in a way that could deliver the greatest benefit for the most people. There is lots of interest in doing this evaluation now because government is encouraging organisations to adopt digital records and is making money available to help this happen. Many organisations have yet to start using digital records. Where organisations have started to use digital records, generally people think more can be learned about how make the most of the information gathered.

Digital Social Care Records Evaluation (DiSCRE)

This evaluation will support stakeholders to advise the research team about what to explore in detail, where, how and why. By stakeholders, we mean people who have experience of care in their own homes or care homes, their families, and the professionals who work with and for them. Decisions will think about things like the time and budget available as well as equality issues and what is ethical. The plans we set out here have been developed with the advice of stakeholders.

The questions we are asking in this evaluation cover the following areas:

- why organisations have or have not started to digitise records
- people's expectations about how digitising records will change things
- people's experiences of moving from paper to digital and using features of digital records like family portals
- what people see has changed as a result of going digital and whether they feel the changes have made their lives better or worse and in what ways
- whether different groups of people with different life experiences see and experience going digital similarly or differently and the ways in which that matters to people's lives
- what are the economic considerations for social care providers when implementing digital social care records.

To answer our questions, we will find out about what is happening in home care and care homes in different parts of the country. We think that it is useful to look at places that have different experiences of going digital. So, we will include organisations that have not yet started going digital, are in the process of going digital, or went digital a year or more ago.

We will use a multiple case study approach, which means we will look in detail at the process of going digital within a number of care provider organisations. This will help us understand how the context shapes people's experiences. We will start by interviewing senior leaders in 30 organisations that provide care for adults. We will then look in more detail at how ten of those organisations experience going digital. At this stage we will gather the perspectives of people who draw on care, their families and friends and care workers. To understand economic impacts we will also ask senior leaders with knowledge of the finances from eight of the organisations to talk to us about their investment decision. Researchers (including members of the public who want to work with us as 'peer researchers') will visit the organisations to collect this information.

We will use some theories to help understand what we find. Theories are ways of looking at the world and how people behave, which can help us understand what might be happening. Some theories that researchers have found useful when looking at digital health and social care point out that it is important to think about, for example, why different people think going digital is valuable, how digital records have an effect on people and how people affect digital records, and how easy people find it to use digital systems and whether it helps then access information and whether there are also some barriers.

The evaluation will move forward in stages. This will involve learning and sharing what we can about the wide contexts in which social care records are going digital and then looking at the everyday experiences of individuals. At every stage we will share what we learn with stakeholders in ways that we hope will help make a difference. We will also share what we find with other researchers.

SOCRATES LOGO

STUDY TIMELINE

Commented [M1]: Please note change to line referring to the economic data collection and analysis. We have also revised the label for the co-production group which we are referring to as our evaluation advisory network

	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
Phase 0: Preparation																		
Rapid scoping review	🟦	🟦	🟦															
Ethical and research governance approval process (phase 1)	🟦	🟦																
Recruitment of ICSs	🟦	🟦																
Recruitment of providers		🟦	🟦	🟦														
Evaluation advisory network workshop / research material development		🟦	🟦															
Phase 1: Understanding views of senior leaders of care providers and DSCR suppliers																		
Ethical and research governance approval process (phase 2)		🟦	🟦	🟦	🟦													
Collect and analyse data from senior leaders of care providers				🟦	🟦	🟦	🟦											
Collect and analyse data from DSCR suppliers					🟦	🟦	🟦											
Evaluation advisory network workshops / site feedback								🟦										
Phase 2: Understanding the experiences and consequences of adoption and implementation within care provider organisations																		
Collect and analyse case study data									🟦	🟦	🟦	🟦	🟦					
Collect and analyse data on investment decisions									🟦	🟦	🟦	🟦	🟦					
Evaluation advisory network workshops / site feedback														🟦				
Phase 3: Synthesis, further analysis and knowledge exchange																		
Synthesis of data and further analysis of themes														🟦	🟦	🟦		
Knowledge to action workshop series with key audiences															🟦	🟦	🟦	🟦
Wider knowledge exchange activities																🟦	🟦	🟦

Digital Social Care Records Evaluation (DiSCRE)

1 BACKGROUND AND RATIONALE

For some time now policymakers have argued for the need to digitalise health and social care. In the social care context this agenda received a significant boost following the pandemic. This was in part due to the need for organisations to rapidly adopt digital technologies to continue operating, as many activities moved online, but also due to the lack of data available about the capacity of providers, the workforce, and the numbers of people receiving care to support decision-making by policymakers and research (DHSC 2021a). Digitisation of care records is seen as critical to increase the amount of information in the system, but the government also argues that digital social care records (DSCRs) will help the system to deliver on the broader vision for social care. The anticipated promise of DSCRs is that they will help practitioners to provide safer, better quality and more personalised care through providing timely access to the right information and give individuals and their families more control over their care by enabling them to view the information held about them.

Current policy to promote digitisation in the social care context focuses largely on adult social care providers, by which we mean care homes and home care organisations. This is because compared to local authorities (LAs) and children's social care providers adoption has been slow. In 2021, it was reported that only 40 percent of adult social care providers were fully digitised, with the rest still using paper records (DHSC 2021a). Meanwhile, the rate of adoption had been slow, at just three percent per year (DHSC 2021a). It is also understood that many of the largest providers – those that are part of the CQC (Care Quality Commission) market oversight regime – are still using paper records. To improve this picture, the government introduced a target to ensure that 80% of CQC registered providers are using electronic care planning solutions by March 2024 (DHSC 2023). As part of its Digitising Social Care (DiSC) Programme (led by NHS England and the Department of Health and Social Care), NHS England is working closely with Integrated Care Systems to deliver this target and is providing a range of support and advice to the sector. This includes a fund to which providers can apply to support implementation of DSCRs on the assured solutions list (see Box 1 for operation of the fund).

Box 1: The Fund for Digital Social Care Record implementation

ICSs have been invited to apply to the Adult Social Care Digital Transformation Fund in order to support care organisations in their local areas with digitisation, including DSCR implementation. A total of £8.2 million was set aside for this fund for 2021/22 (NHS Transformation Directorate n.d.), and a further £25 million was set aside for 2022/23 (Digital Social Care 2022). The ICSs distribute the monies within the fund among social care providers in their area (NHS Transformation Directorate n.d.).

There are differences across ICSs in how the fund is managed and the money allocated to providers to drive adoption of DSCRs. Some areas have a lead within the ICB for ASC digitisation and allocated resources for this role. LA involvement is variable, although in some areas LAs are actively encouraging adoption (e.g., through contract specification) or leading the drive to adopt DSCRs for the ICS. Provider involvement is also variable, although some areas have commissioned local provider associations to support engagement with the provider market. Progress on the targets for adoption of DSCRs by social care providers is variable across the ICSs.

Social care providers can only receive money from the fund if they are adopting a DSCR solution on the assured solution list. Additionally, ICSs have to report regularly to NHS England on delivery against the targets for DSCR adoption and on the benefits delivered by the programme.

Given the focus of policy on increasing the amount of information in the system and in ensuring practitioners have timely access to the right information about a given person's health and care there are also expectations that once organisations have adopted DSCRs they will seek to access relevant digitised information held by other organisations and share the information they hold with other approved individuals. In this respect an important commitment is that, by January 2024, all assured DSCR solutions will be expected to enable proportionate access to GP record information for authorised staff within providers (NHS Transformation Directorate 2023). There is also the ambition that assured solutions will enable more information sharing between the NHS and social care. The February 2022 White Paper on the integration of health and care, *Joining Up Care for People, Places and Populations*, committed the government to ensuring that care providers would be able to connect to their local Shared Care Record within six months of having an operational DSCR in place. A Shared Care Record combines all of an individual's separate records from primary care, secondary care, and social care together in one digital location, allowing each person to have a life-long, joined up health and care record. To support the joining up of DSCRs and Shared Care Records, it was announced that the government will reinforce the use of the NHS number as a unique identifier universally across social care (DHSC 2022).

Although digital records have been used in social care settings for many years, our rapid scoping review reinforces previous findings that there is limited evidence about the experiences, consequences and economic impacts of DSCR adoption and implementation in social care provider settings (see Appendix 2, 11.2; Greenhalgh et al. 2009, cited in Sugarhood & Rouncefield 2018), especially in the context of a push to share data with approved practitioners from other organisations. A review by Greenstock (2021) highlights the potential benefits of DSCRs across a number of dimensions, including around workforce productivity, the quality of documentation, the quality and safety of care delivered with positive outcomes for people drawing on services, including improved sense of control where people can access their own records, improved collaboration between staff within and between organisations and financial benefits. Much of the evidence reported is ambiguous about the extent to which these benefits are realised. Scoping reviews of implementation of DSCRs in social work settings and nursing homes have found that the complexity and impracticality of some digital systems is time consuming for staff, leading to negligible time saved and preventing them from spending time with clients (Ylönen 2023, Kruse et al. 2017). The uncertainty around the benefits of DSCRs was reflected in conversations with stakeholders, who questioned whether the implementation and ongoing costs of using DSCRs would deliver financial and non-financial benefits to provider organisations. While the case for digitisation had been made at a national level, for care providers the business case is less clear.

Research that has explored the implementation of digital records points to a number of reasons why the expected benefits of DSCRs often fail to materialise. There are many implementation challenges. For example, Greenstock's (2021) review reported organisational challenges, related to their capacity to innovate and readiness for DSCRs including a lack of digital leadership and knowledge at different levels of seniority within organisations, variations in digital skills and views on prioritisation of digital change among staff, infrastructure issues, and lack of resources to move from paper to digital records. Another reason why benefits are not realised is that they are simply unrealistic. In our review, this was identified quite frequently with respect to studies that focused on data sharing between DSCR systems; the necessary degree of interoperability between different systems to support data being accessed all in one place was not yet there.

While the evidence base reports on potential benefits and implementation challenges, the stakeholders we spoke to expressed a number of fears. These were often the inverse of the potential benefits – for example less access to information, less time for quality care based around strong relationships. They also related to fears about how the large amounts of information about both care workers and people drawing on care that is held within DSCRs is stored and kept secure and what the data is being used for. Another issue raised repeatedly by stakeholders was the fear that digitisation may further exclude already marginalised groups of people and exacerbate existing problems, for example around the workforce supply and working conditions. These fears are not unfounded; learning from the implementation of health records it is apparent that inequalities can be exacerbated, particularly in relation to age, race, region, economy, education level and literacy (Yao et al. 2022). It is important to understand how to get the most out of DSCR implementation, so the expected benefits are realised for all people involved in social care and people's fears do not come to pass, especially those related to equality, diversity and inclusion.

An important point to note about the existing evidence is that much of it explores the use of systems designed many years ago now. These studies tend to note that the material properties and functionality of the technology are important determinants of uptake and use (Greenhalgh et al 2017, Ylönen 2023). In this respect, an interesting feature of the current adoption drive in England is that many of the assured solutions have been recently developed (for a summary of DSCRs see Box 2). They have modern features, and, depending on the provider, offer mobile/offline options, portals for people who draw on services and approved family members/carers to access/contribute to care records, and receive hospital discharge information, among others. Some of these solutions have been designed in collaboration with the social care sector and stakeholders mentioned that, in some cases, they offer aftercare and support packages for implementation. Critically, many of these features, e.g. co-design of solutions, are identified in research as ways of increasing the chances of successful adoption and implementation of technology (see e.g. Greenhalgh et al 2017). Kaihlanen et al (2023) also offer evidence that portals for people who draw on care deliver positive benefits for staff, as people take a more active role in their care. This raises the possibility that the experience and consequences of using systems with these modern features may be different in important ways from experiences with previous systems, and experiences of implementing DSCR systems within LAs – a question that has not been explored in any depth in the existing literature.

Box 2: Digital Social Care Records in England

A Digital Social Care Record (DSCR) allows the digital recording of care information and care received by an individual, within a social care setting, replacing traditional paper records. DSCRs are sometimes referred to as electronic care plans. At their most basic DSCRs can record information related to a range of care functions (e.g., assessment and review, care plan development and monitoring, medications management, etc). Most systems have additional functionality, including allowing the individual and authorised third parties to view the records, automatic reporting/audit facilitation, allowing real-time sharing of data with systems used by other practitioners or in other settings, and working offline/via a mobile phone interface. A searchable database hosted by the Digital Social Care website of DSCR suppliers on the assured solutions list provides a full summary of functionality offered by each solution.

There are many providers of DSCRs, with stakeholders we spoke to estimating over 50. Of these, 20 are on the assured solution list (as of 7 September 2023). This was developed to enable quicker, easier and more informed purchasing processes for social care providers and other organisations. DSCR solutions tend to be targeted at specific social care settings (e.g., home care providers, care homes) and types of clients (e.g., children or adults). Among DSCRs targeted at the same settings, each company has a slightly different value proposition, relating to the content captured, design and functionality of their software/platforms/apps, the extent of set-up, implementation and aftercare support, and the varying options for different price points. Some companies also have products for multiple settings (e.g., Everylife's PASS system is available for home care and care homes and Access group have systems for local authorities (LAs) and social care providers), but even where companies offer solutions for multiple settings the solutions tend to be stand-alone and do not necessarily allow information to be shared in real-time between the products.

Our scoping work suggests there is an opportunity for a rapid evaluation of the implementation of DSCRs by adult social care providers to provide evidence to support local areas to deliver on the digitalisation agenda and to enhance attention to the issue of equality, diversity and inclusion. Given the modern features of DSCRs we also expect this evaluation to provide insights of value to an international audience with an interest in the implementation of digital information systems in care-related areas of practice. We propose a theory-based rapid cycle evaluation, involving two cycles of data collection and feedback to the sites we are working with. We adopt a case study design with each case study carried out to differing degrees of depth to manage time, resources and risks to delivery. The first phase aims to understand DSCR implementation from a senior leadership perspective across a number of providers; the second phase we involve a ‘deep dive’ to understand DSCR implementation in a smaller number of providers from a broader range of perspectives. The evaluation will include an economic component.

1.1 Evaluation questions

Given the current evidence base and needs of stakeholders, through initial discussions with public advisors, we have developed the following set of research questions and sub-questions:

1. Within which contexts is digitisation of social care records happening and why?
    a. What enables or constrains DSCR adoption?
    b. What approaches to adoption and encouraging adoption are seen as beneficial in what contexts?
2. What are the expectations, experiences and consequences of implementing DSCRs?
    a. What benefits are people hoping to achieve for themselves, others, the organisation and wider system? How do they think these benefits will be achieved?
    b. What benefits or disbenefits have people experienced for themselves, others, the organisation and the wider system?
    c. Have people experienced any unintended consequences of DSCR implementation for themselves, others, the organisation and the wider system?
    d. How do people experience implementation of DSCRs? What has facilitated or got in the way of realising the expected benefits of DSCR implementation? What challenges were expected and what did they do to manage, contain or overcome these challenges?
3. How do people experience using specific features of DSCRs within care relationships?
    a. How are the different features of DSCRs being used by care workers, people drawing on services and their families?
    b. What are the different features of DSCRs being used for? What practices and relationships do they constrain or enable?
4. What are the experiences and consequences of DSCR implementation for people in different social categories?
    a. Do people in different social categories experience the implementation and consequences of DSCRs differently? For whom is this the case and how?
    b. In what way are any differences in experiences of DSCR implementation related to the characteristics of contexts, organisations, relationships or approaches to implementing DSCR?
    c. How are inequalities redressed?
5. What are social care providers’ *economic and financial considerations* in implementing DSCRs?
    a. What are social care providers’ perceptions and expectations of the return on investment of implementing DSCRs and what are these based on?
    b. Do social care providers have the capacity to develop estimates of financial investments and costs of implementing DSCRs and willingness to share them for research?

1.2 Development of the protocol

This protocol has been developed during a scoping exercise which has included discussions with key national stakeholders involved in social care (n=37) (see Appendix 1, 11.1), rapid scoping review of the literature (see

Appendix 2, 11.2), a rapid review of the policy landscape (see Appendix 3, 11.3), and discussions with proposed sites (n=2). The protocol focuses on an evaluation to help sites to optimise the use of DSCRs and drive adoption. As we progress discussions with the evaluation advisory network for the study, the protocol may undergo further refinement to integrate insights from further discussions with sites.

2 THEORETICAL FRAMEWORK

For rapid research, it is critical to have a clear orientation to the field and ideas about the range of issues that are likely to be important to structure data collection and analysis and ensure it is as efficient as possible. A range of theoretical perspectives have been used to make sense of digital data collection about individuals, digital records implementation and (often) failures (see Greenhalgh et al 2009, Lupton 2018, Greenhalgh and Stones 2010). Some of these positions have been adopted to study DSCR implementation in adult social care, including computer supported cooperative work (Sugarhood & Rouncefield 2018), socio-technical systems theory (Shiells et al. 2020), activity theory (Qian et al. 2019); design theory (Persson et al. 2023). In the broader social care literature, a wider range of theoretical positions have been adopted (see Steiner 2021, Larkins et al 2023).

In recent years there has been a proliferation of evidence-based implementation frameworks, which draw on studies that take different positions with respect to the field. They aim to help orient researchers to the kinds of issues that are likely to be important when evaluating the implementation of innovations. The nonadoption, abandonment, scale-up, spread, and sustainability (NASSS) framework is an example that is tailored to understanding the implementation of technologies (Greenhalgh et al 2017). It is particularly relevant to this context because it focuses on the challenges associated with moving from a local demonstration project to one that is fully mainstreamed and part of business as usual locally (scale-up), transferable to new settings (spread), and maintained long term through adaptation to context over time (sustainability) (Greenhalgh et al 2017). Additionally, compared to other implementation frameworks, NASSS includes a concern with the value proposition of a technology and the organisation's business model for introducing the technology – issues which featured strongly in our discussions with stakeholders. It also recognises adoption of DSCRs as a complex process of change, in which not only the wider context of implementation may change over time but the technology itself may also change. This is particularly relevant for DSCRs given the government's standards and capabilities roadmap for DSCR solutions that all assured providers will need to comply with.

We propose using the NASSS framework as a sensitising device, to identify aspects of DSCR implementation that seem most uncertain and have substantial interdependencies. In essence it provides a useful theoretical scaffold for identifying degrees and forms of complexity in domains related to the implementation of DSCRs, thereby helping to pinpoint the focus of our evaluation. NASSS predicts that where there is greater complexity organisations will need to work harder to contain and manage these aspects if implementation is to succeed. Although the scoping review has not identified studies of DSCR implementation that are informed by this framework, it has been used to successfully explain implementation of other kinds of technology in social care contexts (Litchfield et al 2023). We therefore have some confidence in its applicability in the social care context. Nevertheless, it may need some adaptation and one objective of this study will be to comment on the applicability of the NASSS framework to the social care context.

Through a preliminary mapping of the intelligence we have gathered about DSCR implementation from our scoping review of the evidence, discussions with stakeholders and policy review onto the NASSS framework, we have identified the following issues around which there is unpredictability, multiple interacting components and issues, and uncertainty:

- Why people think going digital is important – the 'value proposition' to people and organisations – as different groups of stakeholders seem to have different views about what they want DSCRs to deliver and evidence of effectiveness and cost-effectiveness is limited.

- The complex and dynamic way in which digital records become integrated within a particular type of service. DSCR implementation is an ongoing process of change that does not end once the paper records are digitised, but involves a continuing process of implementation as the technology develops and people, records and organisations adapt to and change each other.
- The extent to which DSCRs put useful and useable information into the hands of people who draw on services and their families so they can guide the development of accessible, accountable services
- The extent to which DSCRs are seen as intuitive and put useful and useable information into the hands of staff, so they can provide care that fits with their values
- The relationships through which information is created and shared and the extent to which these are deepened or not through the implementation of DSCRs, given technological dependencies
- The wider technical, social and economic situations in which people live and work that inform how DSCRs are viewed and used, particularly with respect to fears about data security and privacy
- The issue of whether DSCRs perpetuate or redress the existing disadvantage in distributions of resources within the field.

3 AIMS AND OBJECTIVES

The overarching aim of this project is to generate timely evidence to help local areas and organisations to implement DSCRs within adult social care provider organisations, specifically care homes and home care agencies, in a way that delivers the greatest benefit for the most people.

The specific objectives relate to the five study research questions:

1. Generating evidence about people’s experience of using specific features of DSCRs within care relationships, specifically care workers, people drawing on services and their informal care networks / families
2. Generating evidence about the expectations, experiences and consequences of implementing DSCRs for people, organisations and systems, and how expected benefits can be realised.
3. Generating evidence that is nuanced about differences in the experiences and consequences of DSCR implementation for people in different social categories, and how organisations can better target support, redress inequities, and develop more inclusive practice
4. Generating evidence to understand the business case for adoption of DSCRs in the current context by care homes and home care organisations.
5. Exploring the applicability of the NASSS framework to the social care context, and examining whether there is a need for adaptation.

4 STUDY DESIGN

All SOCRATES evaluations give a central role to coproduction, to the extent of available time and resources. During the scoping phase of this evaluation, we have worked with SOCRATES network members to develop an outline design for the evaluation (see summary of public and stakeholder input, Appendix 1, 11.1), which we have revised further with the evaluation advisory network for the project. Members from each of the evaluation sites will be invited to join the network, to ensure all key constituencies are involved (see section 7.2 for details about this group).

The evaluation adopts a theory-based perspective, with a focus on understanding how and why DSCRs can be implemented to deliver the anticipated benefits, and the ways in which implementation may need to be adapted for different groups of people and in different sets of circumstances (Skivington et al 2021). We propose a rapid cycle evaluation (Vindrola Padros et al. 2021), with two phases of data collection and feedback to the local sites. The intention is for the feedback sessions to provide sites with actionable data that is ‘good enough' to inform decisions (Zakocs et al 2014). The staging of the data collection serves two purposes: it accommodates the longer timelines for ethical review and approval associated with gathering the perspectives of the people who draw on care and their families; and it ensures the sites we are working with receive feedback in a timely manner to improve local implementation of DSCRs.

We will adopt a case study approach and will purposefully select different types of care providers from a range of sites across the country (see 4.1 case study selection). Case studies are particularly helpful in understanding the dynamics of change processes – in this instance the adoption and implementation of DSCRs – and including multiple cases allows us to explore how implementation varies across contexts (Pettigrew et al 2001, Stake 2006). This is important given the different ways in which ICSs operate, deliver the DSCR fund and support providers to implement DSCRs, the different suppliers used and the different types and operating conditions of care provider organisations. By exploiting this variation, we can gain greater insight into the use of DSCRs by care provider organisations, generating evidence that is more helpful for improving the adoption and implementation of DSCRs in different contexts throughout England and potentially further afield. However, case studies are also resource intensive. To accommodate our rapid time frames and resources, and the desire of evidence users to capture a breadth of situations, the case studies will vary in the depth to which we will explore DSCR adoption and implementation, with a greater range of methods used for a small number of more in-depth cases (Vindrola-Padros 2021).

The rapid cycle approach will also structure our engagement with the case studies. All care providers will be involved in the first phase, which will focus on capturing the views of senior leaders of care provider organisations and DSCR suppliers. It will examine the contexts of implementation and the business case for DSCRs (research question 1) and will explore the expectations and consequences of DSCR implementation at an organisational level (research question 2), paying attention to any equity implications (research question 4). The second phase of data collection will involve a smaller number of providers as case studies. We will focus in this phase on capturing the experiences of the different people who input, access or use the information held in DSCRs. We will examine the expectations and consequences of DSCR implementation for care workers, people drawing on care and their families and friends (research question 2) and how these people experience different features of DSCRs (research question 3), paying attention to equity implications (research question 4).

The second phase of the project will also include a light economic component, in which we propose to examine the economic impacts of DSCR adoption and implementation (research question 5) again with a smaller number of case studies. A full cost-effectiveness analysis would not be feasible given the rapid timescales and resources available. Instead, we will explore the economic and financial considerations for social care provider organisations when implementing DSCRs. In particular we will address providers' expectations for returns on investment in DSCRs and their capacity to estimate their actual returns on investment.

4.1 Case study selection

In this study we treat care providers as cases to explore the implementation of DSCRs. Our cases are selected purposefully to build in variety and provide opportunities for intensive study of key features of the process of implementation of DSCRs (Stake 2006). The characteristics of cases we have identified as important from our reading of the extant literature, discussions with stakeholders and insight from the NASSS framework are: the type of provider (care home or home care agency), the stage of the provider on their digital journey (pre-adoption, adoption, 1 year or more post-adoption), and the ICS the provider is located in. We will be guided by the expertise of the evaluation advisory network to identify four different ICS regions to work with to ensure we have variation in the environment providers are working within (see 6.1 recruitment of sites). We will recruit thirty care provider cases studies in total from across four different ICS sites.

To manage our resources, case studies will be conducted to a differing degree of depth. This will allow some flexibility should cases not provide opportunities for intensive study of all the key issues, for example due to drop-out or difficulties accessing key people within our limited timescales. We will use the insights into contexts generated in phase 1 to guide a sampling frame for phase 2. We will be transparent about the different ways in which we will work with case study care providers.

5 METHODS OF DATA COLLECTION AND ANALYSIS

The methods have been decided in discussion with the evaluation advisory network, during the scoping phase of the research project. In addition to the proposed methods for the preparatory phase, the methods for the two cycles are outlined below. The methods for cycle two may be refined in discussion with our evaluation advisory network and in light of the findings from the first cycle.

5.1 Phase 0: Preparatory phase (September 2023 – December 2023)

During the preparatory phase of the project, we will carry out the following activities:

1. Rapid scoping review of the literature on DSCRs

The aim of the rapid scoping review is to assess what is known and identify gaps in the evidence base about the implementation of DSCRs in social care settings. Our particular focus is on the UK context, but we will also explore the international literature. Although we identified three reviews of digital records, it has been difficult to extract information from these reviews to support the development of this proposal; in particular, the reviews lacked detail on the methods used in previous studies, the settings and participants of existing research. Additionally, technology is a fast-moving field and we know of a number of recent and ongoing studies in the digital records space in the UK that were not included in these reviews.

The intention is for the review to support the fieldwork. We have used it to refine the focus of this evaluation and ensure we build on what is already known. The information we have extracted so far has helped to guide discussions with the evaluation advisory network and other stakeholders. For example we used the review findings to talk through gaps in the current evidence base, particularly around the settings and participants of previous research, the methods and theories/frameworks that have been used, and what has been found. This dialogue between stakeholders and the extant evidence ensures the evaluation responds both to the issues stakeholders think are most critical and to gaps in the evidence base.

We have prepared a protocol for this literature review and are currently extracting information from the studies we have included (see Appendix 2, 11.2).

2. Theory of change development and synthesis of intelligence gathered using the NASSS

As outlined above, NASSS provides a scaffold for the theory of change. It predicts that where there is greater complexity organisations will need to work harder to contain and manage these aspects if implementation is to succeed.

Using the NASSS tools for complexity assessment (Greenhalgh et al 2020) we will map the intelligence we have gathered about DSCR implementation from our scoping review of the evidence, discussions with stakeholders and policy review onto the NASSS framework. As we learn more about the sites and providers, we will update the theory of change to reflect strategies being implemented locally, or features of the local environment that may present particular challenges or are likely to smooth implementation. This will ensure data collection is sensitive to features of the local context.

To support this work we will review a limited number of local documents and hold a series of hybrid workshops with key individuals from each site to co-produce the theory of change and research materials. Key people who will attend this workshop will be the ICS lead for digital social care, and local partners with responsibility for delivery, which might include members of the local provider association and LA staff. We will also invite people with lived experience of care so their views about the local situation feed into our plans. Participants at these events will then be invited to join the national evaluation advisory network for this study.

To support an assessment of the economic impacts, we will simplify this theory of change into a logic model.

3. Practical preparation

We will also use this phase to submit research governance and ethics approvals, recruit sites and care providers, explore the availability of local data and documents, develop research materials with the co-production group, and train field researchers (including peer researchers).

Deliverables from this phase will be a scoping review journal article. Key milestones are the ethical and research governance approvals, recruitment of sites and providers, and co-produced research materials.

5.2 Phase 1: Understanding views of senior leaders of care providers and DSCR suppliers (January – May 2024)

The Ethics for Phase 1 is now in place: 23/HRA/4966 and IRAS Project ID: 3347698

This phase will focus on the research questions 1, 2, 4 and will involve preparation for 5. It will involve the following activities:

1. Interviews with senior leadership of social care providers

Depending on the size of the provider, key informants (KIs) will be either senior managers/executives of the provider organisation or registered managers of the agencies or care homes. We will conduct 30 interviews in total across the sites, aiming for roughly 15 home care providers and 15 care home providers. For each type of provider, we will aim to recruit people from providers at different stages of the implementation journey. We expect interviews with non-adopters to be approximately 30 minutes and those with adopters to last one hour.

In addition to the interview topics set out in Box 3, we will ask KIs about the supplier they are using for DSCRs and explore the functions they are using as this will help us to select a broad mix of providers for more in-depth work in phase two. Should we find we do not have a good mix of providers with respect to these characteristics we will recruit and interview more providers. We will also use this information to identify DSCR suppliers to interview in this phase of the work. To explore economic considerations we will ask about the investment decision. For instance, we will ask adopting respondents to assess their business case in simple terms, to assess the investment required, and the value added to their current service.

To maximise our ability to work rapidly, we propose conducting interviews using video calling software. Because managers are operating in high-pressure and volatile environments that are often under-staffed we will maintain a flexible approach to enable people to participate. It may be that some people prefer telephone or face-to-face interviews outside of work hours. Focus groups, involving multiple providers are a good way to rapidly collect data from a large number of providers, and may be feasible and preferred where provider associations are involved in DSCR implementation and are able to facilitate engagement of providers.

Box 3: Topics for KI interviews

For adopters and non-adopters

- The key features of their working context
- Reasons for adopting or not adopting DSCRs

For non-adopters

- What might make them adopt DSCRs
- What investments did they think were needed for DSCR that they decided not to make and why?

For adopters

- What they hoped to achieve through adoption of DSCRs for their organisation, the people who work there and the people they care for
- What fears they have / had about the process and consequences of adoption and whether they took any steps to manage or contain these challenges
- What is/was the case for implementing Digital Social Care Records in their business?
- What investments they have made or plan to make in DSCR in their business
- Whether they expect the business to benefit financially from DSCR and if so how? And do they expect non-financial benefits? If so what would those be?
- Whether they feel they have realised the benefits they hoped to achieve, and what helped and got in the way of them realising these benefits for their organisation, the people who work there and the people they care for
- Whether there were any negative or positive unintended consequences

In all questions we will adopt an equity lens and ask interviewees to think about consequences for people of all social groups.

2. Interviews with senior leadership of the software being used by providers in our study

The aim of these interviews is to understand the range of costs and benefits of DSCRs. across a range of contexts with different types of providers, from the suppliers' perspective. (See Box 4 for a list of topics.) We expect to interview a minimum of two and no more than five suppliers, but the exact number will depend on the mix of DSCR systems used by the care providers in our sample.

Box 4: Topics for DSCR supplier interviews

- What they consider to be the benefits of the DSCR for the organisations, the people who work there and the people they care for
- What organisations they have worked with have had to put in place to adopt and implement DSCRs, and whether this varies according to characteristics of the system, the organisation, the people who work there, the people they care for and the functions of the DSCR they are using
- What is the payment model (e.g. subscriptions, licence fees)? What is the offer for product support? What arrangements are there for contractual disputes?
- What they have offered and provided to organisations to help them to adopt and implement DSCRs, and whether this varies according to characteristics of the system, the organisation, the people who work there, the people they care for and the functions of the DSCR they are using
- What they continue to offer to organisations to maintain their use of DSCRs, and whether this varies according to characteristics of the system, the organisation, the people who work there, the people they care for and the functions of the DSCR they are using
- What organisations they have worked with have had to put in place to manage any changes in the product, for example due to a change in the regulatory context, or to accommodate improved features or capabilities.

In all questions we will adopt an equity lens and ask interviewees to think about how their software works for people of all social groups.

3. Workshop with evaluation advisory network for this study and feedback to sites

We will hold a series of hybrid workshops with members of the evaluation advisory network to explore the evidence generated from the first phase and to refine the second phase of the research, including the research materials. Academics will summarise the evidence gathered in relation to contexts and why providers do or do not adopt DSCRs and what would encourage them to adopt DSCRs (i.e. research question 1). The network members will discuss the evidence, identify the key features of sites to be sampled in the next phase of the study and refine the research tools. We will work with network members to think through how they could use this evidence to meet their goals for DSCR adoption and implementation and how the findings could communicated to people in other parts of the country.

As before, key people who will be invited to this workshop will be people with lived experience of care and their family/friends, the ICS lead for digital social care, and local partners with responsibility for delivery, which might include members of the local provider association and LA staff.

Following these workshops we will hold a Brown Bag webinar to which we will invite people from the sites who have supported or participated in our research. The purpose of the webinar will be to share our findings and provide the audience with an opportunity to discuss, challenge and validate the evidence we present.

Deliverables from this phase will be an accessible summary of phase 1 findings. Key milestones are the completion of the provider and supplier interviews, completion of the costs and benefits questionnaire, and completion of the co-production workshops.

5.3 Phase 2: Understanding the experiences and consequences of adoption and implementation within care provider organisations (June – November 2024)

Ethics approval is now in place:

Ethics review number (phase2) 24/LO/0204

Ethics review number : IRAS 335300

This phase will capture information in relation to the research questions 1, 2, 3, 4 and 5. The aim of this strand is to conduct a ‘deep dive’ with a smaller number of the providers who have adopted DSCRs or are in the process of adopting DSCRs who were recruited through phase one.

Evaluation of experiences and consequences of DSCR implementation

We will aim to work with ten providers - two to three per site – with a total of five home care agencies and five care home providers. Across the sites we will aim to work with roughly five providers at the adoption stage and five providers who are at least a year post-adoption. To manage resources, at least one provider at each site will be a light touch case study; the others will be carried out in more depth. We will manage this to ensure we have a mix of light touch and more in-depth case studies for each type of provider and stage on the digital journey.

To manage our ability to work rapidly we will aim to conduct the data collection in a condensed period of time, making a single visit to the provider to try and carry out the interviews over one to two days. If it is possible we could combine this with attending a relevant meeting. We recognise that this may be difficult to achieve, as situations frequently change within care providers so we will maintain a flexible approach.

Evaluation of economic impacts

The aim of this strand is to understand the business case for implementing DSCRs and perspectives on the return on investment of DSCRs . We will conduct this work with at least eight of the providers who agreed to participate in phase two. The providers will be spread across the sites and we will aim to work with an equal number of home care agencies and care home providers, at the stages of adoption stage and post-adoption.

Phase two will involve the following activities:

1. Review of care provider documentation

To gather an understanding of the broader context for DSCR implementation at each case study provider we will review relevant documents, such as strategy and business cases, committee/meeting papers, internal reports, website and external communications. For light touch sites, we will only review the business case for DSCR adoption and any internal reports about its implementation and impact.

2. Interviews with care workers

We will conduct 30 interviews with care workers in total across the sites, aiming for roughly the same number of interviews from people working for care home providers and home care agencies and at the different stages of the implementation journey. For in-depth cases we will conduct four interviews with carer workers; for light touch cases we will conduct two interviews. The interview topics are set out in Box 5. We expect interviews to last one hour.

We will maintain a flexible approach to enable people to participate, so will offer interviews outside of working hours. It may be that some people prefer video-calls, telephone or face-to-face interviews. We will speak to as diverse a group of people as possible to ensure we understand how DSCR adoption is experienced by people with different digital abilities and affects existing inequalities.

3. Interviews or creative activities with people drawing on care and support/residents and their families

We will involve 30 people who are drawing on care and their families in total across the sites, aiming for roughly the same number of people by provider type and stage of the implementation journey. Existing studies have tended to focus on the perspectives of staff directly employed by the organisation implementing the DSCR, and not people who draw on services and their families / carers, so this part of the study will provide a novel perspective on DSCR adoption and implementation. The evaluation advisory network have suggested that creative group activities, rather than interviews, may facilitate involvement for some people in some settings. For this reason, we will provide options for how people engage that may vary from setting to setting, but the topic focus will remain the same (see Box 5). For in-depth cases we will conduct in depth discussions with four people; for light touch cases we will conduct in-depth discussions with two people. We expect interviews, including where they involve creative activities to last 50-90 minutes.

We intend to employ peer researchers to help us carry out these activities if public advisors think this is appropriate. We will also look into working with Activity Coordinators in care homes to engage residents in creative group activities that gather their views on DSCRs. We will maintain a flexible approach to enable people to participate, so will offer interviews at different times of the day. It may be that some people prefer video-calls, telephone or face-to-face interviews. We will speak to as diverse a group of people as possible to ensure we understand how DSCR adoption is experienced by people with different digital abilities and affects existing inequalities.

Box 5: Topics for interviews with care workers, people drawing on care/residents and their families

Understanding expectations, experiences and consequences of implementing DSCRs

- What they hope could be achieved through adoption of DSCRs for their them personally, for others like them, for their family (people drawing on care), for the people they care for (family and staff), for their organisation (staff)
- What fears they have / had about the process and consequences of adoption, whether any came to pass, and whether anyone took any steps to manage or contain these challenges
- Whether they feel they have realised the benefits they hoped would be achieved, and what helped and got in the way of them, others or the organisation realising these benefits
- Whether there were any negative or positive unintended consequences and for whom

Key benefits and fears that we would want to explore with people and families include being able to contribute to their care planning and having more voice and say over what is recorded and how, ownership and safety of their data (especially in terms of storage), any changes to how they experience care, including around relationships and organisational boundaries. With care workers we want to explore similar issues and any changes to their experience of giving care, especially with regards to the amount of time they have to care.

Understanding the experience of implementing and using specific features of DSCRs within care relationships

- What features of the DSCRs they are using and how they are using the different features.
- How they have experienced the transition to DSCRs or the introduction of new features – whether it felt exciting, easy, hard or scary and why.
- Whether anyone took any steps to make the transition easier and what these were.
- Whether these features have had a positive or negative influence on care relationships, how and why

Key features to look at include using a portal for families or the person, having GP Connect operational, using DSCRs alongside other technologies, using the information for quality improvement, recording audio, videos and pictures, using DSCRs within multi-disciplinary teams. We will also explore whether any negative or positive experiences were related to the particular social or economic situation of the people we speak with.

4. Data on economic impacts

We anticipate that data collection methods to address RQ5 will be at least in part qualitative. The extent to which it is feasible to collect quantitative data on costs and benefits will be determined by Phase 1 findings. Depending on the size and management structure of the provider organisations we will interview one to two staff with knowledge of investment decisions (i.e. senior leadership in strategic or operational roles and the owner or finance officer) to explore their perspectives on the return on investment of DSCRs. Topic guides will cover:

- Evaluations or expectations of investment: has the business formally evaluated the costs of the likely investment (and the range of potential costs)?
- Planning for implementation: whether there is a project plan; timelines for adoption and staging of implementation; financing.

- Financial benefits of investment – expectations of DSCR in term of reducing their costs or increasing their income, their existing estimates and what these are based on.
- Non-financial benefits of investment – expectations of DSCR in terms of value creation that is intangible or hard-to-measure, their existing estimates and what these are based on.

We will gauge from Phase 1 responses and Phase 2 interviews whether it is practicable to send questionnaires to participating organisations' senior leaders, requesting quantitative data on the costs and benefits of implementing DSCR. The qualitative data may suggest that the specific costs of implementing DSCR have not been quantified in much detail across sites and providers, in which case responses to questionnaires on these matters are unlikely to be informative. Or there may be a subset of providers that have the willingness and capacity to respond to detailed questions. If so, questionnaires might cover:

- Details of the investment plan, covering outlays to external contractors or internal staffing for developing the infrastructure to support digitization – IT services, training, or other kinds of investment, in cash or in-kind, management or project consultancies; details of staging/phasing in digitisation – e.g. starting in particular teams or geographical areas, or adding in modules/features to the core DSCR package over time.
- Details of financing e.g. using start-up grants, local authority or ICS business support or financing, or increasing their charges/fees.
- Details of financial benefits of investment – compared to the situation before DSCR e.g. assessment of changes in scope or scale of the service, reducing the time needed for or the difficulty/demands of administrative tasks or care tasks (compared to the costs of maintaining paper records), reducing resources required to support tasks (e.g. office space, hardware), changes to how they buy in services from external providers, workforce issues such as turnover and vacancy rates.
- Non-financial benefits to end-users: e.g. staff satisfaction, quality of service, clients' outcomes (satisfaction, safety etc).

We will follow-up with an interview to capture any missing information, and ensure we have understood the information captured in the questionnaire. We will also triangulate the reports of how staff are spending their time and non-financial benefits to end-users with the information gathered through the interviews with care workers, people who draw on care and their families.

5. Workshop with evaluation advisory network for this study and feedback to sites

We will hold a series of hybrid workshops with members of the evaluation advisory network to explore the data that has been gathered, advise on further analysis, and develop recommendations and guidance on how the findings could be used by different stakeholders and communicated to people working in other parts of the country. Academics will summarise the evidence gathered across both phases of the evaluation. The network members will discuss the evidence, identify the key audiences for the work and advise on further knowledge exchange activities.

As before, key people who will be invited to this workshop will be people with lived experience of care and their family/friends, the ICS lead for digital social care, and local partners with responsibility for delivery, which might include members of the local provider association and LA staff.

Following these workshops we will hold a Brown Bag webinar to which we will invite people from the sites who have supported or participated in our research. The purpose of the webinar will be to share our findings and provide the audience with an opportunity to discuss, challenge and validate the evidence we present.

Deliverables from this phase will be an accessible summary of phase 2 findings. Key milestones are the completion of the interviews with care workers, people drawing on care and their families, completion of the costs and benefits questionnaire, and completion of the evaluation advisory network workshops.

5.4 Phase 3: Synthesis, further analysis and knowledge exchange (November 2024 – March 2025)

In this phase we will synthesise the information from across the two cycles of data capture and feedback. The purpose of this stage in the process is twofold:

- to provide space for more in-depth analysis around key themes and issues. We will focus on issues where there is the greatest potential to contribute to knowledge. This might be methodologically, e.g. around the use of NASSS in a social care context, or in relation to substantive practice issues, e.g. the use of portals by people and their families, or the economic case for DSCRs.
- to enable engagement and knowledge exchange activities to take place with audiences beyond the sites we have been working with.

In addition to further analysis and reporting, this phase will involve the following activity:

1. Workshops with key evidence users

To facilitate people to act on the evidence we have gathered and gather their views we will run a series of workshops. Based on advice given so far from our evaluation advisory network, we will invite commissioners from LAs, members of the ICB and their key partners including provider associations, providers and people who draw on care and their families. We will invite them to explore what the evidence we have collected, alongside the other evidence they have, means for how they currently work. For commissioners this is likely to focus on how they currently commission care from providers; for ICBs how they encourage and support adoption of DSCRs and work with ICS partners; for providers how they might use our evidence to build a business case for adoption that responds to the specific needs of their organisation and for the people they serve; and for people who draw on care and their families this may be information about approaches to involvement and inclusion.

Deliverables from this phase will be the final report, accessible summaries of relevant findings and at least one journal article. Key milestones are the completion of the national workshop series with evidence users and additional knowledge exchange activities.

5.5 Analysis and synthesis of data from across phase 1 and 2

In all multisite case study research, there is a tension between attending to the local situations, as understood through the individual cases, and attending to the programme or phenomenon, as understood through the cross-case analysis (Stake 2006). In rapid research this tension is heightened because of the need to move more rapidly towards a cross-case synthesis of the findings.

To address this tension we will use a structured approach to chart and reduce the data we collect as we go while retaining the situational understanding of each provider (case), using the Rapid Research Evaluation and Appraisal Lab (RREAL) Rapid Assessment Procedures (RAP) sheet adapted for our purposes (Vindrola-Padros et al 2022). The RREAL sheets provide a structure for tabling the data that is being collected and support a hybrid deductive-inductive approach to the analysis. The approach strongly resembles framework analysis (Ritchie and Lewis 2003). The sheets will be structured according to the research questions and our theory of change (based in the NASSS framework), but leaving room for researchers to identify new issues and key findings as the data collection and analysis progresses. This structured approach of using an implementation framework to guide data collection and analysis helps to move rapidly towards data reduction (Keith et al 2017).

We will use a different RREAL sheet for each site and have separate columns for each provider to retain a situational understanding for each case. A key benefit of summarising the case study data using RREAL sheets rather than a narrative account is that it enables the whole team to develop an overview of each case as the data collection progresses within a relatively tight timeframe, facilitating a quick transition from the analysis of individual cases to the analysis across cases. It also enables the rapid development of short 'findings summaries' to share with the advisory network for this study, should this be their preferred way of working with the research team, and it facilitates the feedback of findings to each site.

To support the collection of data, development of new themes, findings and cross-case insights, the research team will meet regularly to discuss progress, review the RREAL sheets for each site and compare themes and findings across the cases. These debriefing sessions will involve triangulating data until consensus is reached. Triangulating data as a team during the data collection will also provide opportunities to corroborate findings and revisit sites to gather more information where necessary. In this way the data collection and analysis becomes a flexible and iterative process, allowing the team to adapt the approach to what works best in each context and apply learning from the experiences of different members of the research team.

As the synthesis progresses, in a third phase of the research, the team will focus on a deeper analysis of different themes, drawing together the findings in relation to these themes from across the different sites. Public advisory group members will be given opportunities to engage in these discussions, with due attention to anonymising data, and to advise on focal themes.

The analysis of the economic and financial considerations of implementing DSCRs in Phase 2 will follow the same methods applied to other qualitative data collections. Analysis of quantitative data collections will depend on the data that can feasibly be collected from providers. All quantifiable data on costs will be entered into Excel and summarised in broad categories (e.g. 'Investment costs' 'Financial benefits'). Should completeness of data permit, we will calculate the return on investment ratio and summarise for presentation in non-disclosive terms. Outcomes at the provider level will be managed using either Excel or Stata depending on quantities.

6 RECRUITMENT OF STUDY SITES AND PARTICIPANTS

6.1 Recruitment of sites

The evaluation team will identify and recruit four ICS sites from different parts of the country to participate in the project. We will purposefully select sites to ensure maximal diversity along a range of dimensions that are likely to have a bearing on implementation of DSCRs by care providers. The ICSs will be identified through discussions with our evaluation advisory network and other stakeholders on the SOCRATES network. Digital leads (or people with responsibility for delivery of the Digitising Social Care Fund) within ICBs will be approached to see whether they would be happy to participate in the study. At this stage we will seek agreement from other key parties, including LAs and provider associations. We will ensure that the ICS partners we recruit have the capacity to work with us, are interested in co-producing the evaluation with us, and are interested in using the evidence we produce.

Informed by our mapping of the intelligence we have gathered so far to the NASSS framework, we aim to purposefully select ICSs that vary along these dimensions:

- Digital maturity, especially with respect to adoption of digital records in social care and in other parts of the health and care system and progress in sharing data across organisations.
- The maturity of the ICS in terms of the Integrated Care Board's (ICB) relationship with social care partners, both LAs and care providers. The extent to which there is leadership within ICBs for adoption of DSCRs, and engagement with local care provider associations and LAs.
- The structural complexity of the ICS in terms of the number of partners and aspects of the geography/socio-cultural make-up of the place that can affect workforce supply and demand for care (e.g. rurality / urban)

Table 1 lists sites that have agreed to be part of this evaluation with information about how they rate with respect to these dimensions.

Table 1: Agreed study sites

Integrated Care System	Digital maturity	ICB relationships, incl leadership for DSCR adoption *	Character of ICS
Nottingham and Nottinghamshire	Scores 2.3 (out of 5) on digital maturity assessment 2022 against WGLL; broadly performs below average across all domains of WGLL. However, they have invested in data linkage and have the ability to understand movements of people between acute/A&E & care homes. Reported being behind target with DSCR adoption	Project Manager for Digitising Social Care programme in ICB recently appointed. ICB lead is building relationships with local care associations.	Covers two LAs; rural and urban; 662 active locations for social care organisations
Lancashire and South Cumbria	Scores 2.7 (out of 5) on digital maturity assessment 2022 against WGLL; broadly an average performer across all domains of WGLL. Reported to be on target with DSCR adoption.	Reported to have strong relationships with social care. They have had a lead for digital adoption and transformation in social care in place in the ICB for some time.	Covers four LAs; rural and urban; 916 active locations for social care organisations
South West London**	Scores 2.6 (out of 5) on digital maturity assessment 2022 against WGLL; broadly an average performer across all domains of WGLL. Reported to be on target with DSCR adoption.	Lead for Digital adoption and transformation in social care has been in place for some time. Participated as pilot and accelerator site. Good relationships with providers in part forged through the pandemic.	Covers six LAs; urban; 754 active locations for social care organisations
South East London**	Scores 2.5 (out of 5) on digital maturity assessment 2022 against WGLL; broadly performs below average across all domains of WGLL.	Lead for digital transformation for social care has been in place for less time. Developing a good understanding of the market.	Covers six LAs; urban; 680 active locations for social care organisations

	Reported being behind target with DSCR adoption		
Dorset	Scores 2.5 (out of 5) on digital maturity assessment 2022 against WGLL; broadly an average performer across all domains of WGLL. Reported to be on target with DSCR adoption.	Lead for digital adoption and transformation for social care in place since 2022. Good links with local organization that supports market engagement.	Covers two LAs; rural and urban; 439 active locations for social care organisations

WGLL – What Good Looks Like (DHSC 2021b)

* Further analysis to be carried out to look at ICS plan and strategy, including the forward view; ** to be treated as one site so as not to oversample London

6.2 Recruitment of providers and senior managers/owners

We will work with our contact within the ICB, the Local Clinical Research Networks (CRNs) and local partners (i.e. LAs and provider associations) to recruit 30 care providers into the study, aiming for seven to eight providers per site. With the help of ICBs/local partners/CRNs, we will approach the management of care providers. Depending on the size of the provider, this person may be a senior/regional manager, registered manager or potentially owner for smaller providers. We will aim to work with research-ready care homes that are part of the ENRICH network but recognise that this may not always be possible.

The providers will be selected purposefully. The characteristics of the provider organisations we have identified as important from our reading of the extant literature, discussions with stakeholders and insight from the NASSS framework are outlined in Box 6. We will aim to maximise variation across all of these features, but critically we will aim for

- A mix of types of providers, with 15 care homes and 15 home care agencies
- Provider organisations at all stages of the digital journey, such that for each provider type we will have five organisations that have not adopted DSCRs, five that are at the initial stage of adoption, and five that adopted DSCRs at least a year previously.

Box 6: Features of cases that are potentially important for understanding the implementation process

- The type of provider – home care or care home – is likely to be important, as discussions with stakeholders have suggested different sets of issues especially with respect to access to records by the person drawing on services, their family and staff from other organisations and digital infrastructure. Contrasting these two settings is likely to be informative and provide good opportunities for learning.
- Whether or not providers are working in contexts where there is access to good and reliable digital infrastructure
- The stage the provider is on their digital journey, including how recently DSCRs have been implemented (not adopted/planning, just adopting, a year or several years post-adoption) whether they have other digital technologies in place or not, or have shared data with staff from other organisations.
- The size of the provider organisation is likely to be important as it will determine the extent of support available within the organisation to manage change and the complexity of the change process. We do not plan to recruit any very large providers (i.e., those within the CQC oversight programme) as they are working directly with NHS England. We would aim for a mix of family-run organisations and regional operations.
- The DSCR solution that has / is being adopted by the social care provider, as the solutions have different functionality, costs and offer different levels of support to the social care provider.
- The social care workforce of the provider, especially in terms of pay and conditions, age profile, length of time in service, digital skills and whether English is spoken as a first language.
- The population drawing on social care services from the provider, especially in terms of access to the internet (home care), age profile, digital skills, impairments and whether English is spoken as a first language.

6.3 Recruitment of care provider staff and people who draw on services and their families

Within the ten providers selected for the phase two ‘deep dive’, all care workers, people drawing on services and their families / carers will be recruited into the study in collaboration with the management at the provider organisations. We will discuss with our advisory network how best to recompense providers for their efforts in helping us to recruit people to our studies and their staff for participating. All people who draw on services and their families will be given a voucher to thank them for their time. We aim to garner support from the Clinical Research Network to support providers.

6.4 Consent

Informed consent will be obtained from all participants prior to interview or completion of questionnaires. Consent for participant observation of meetings will be achieved through negotiated and privileged access to the field and implied consent.

7 PROJECT MANAGEMENT INCLUDING INVOLVEMENT

7.1 Project management

The project will be managed according to the agreed approach for SOCRATES’ projects. The co-PIs will provide intellectual leadership and direction for the evaluation project, will determine authorship of outputs and will have overall responsibility for the management of the project. The project manager for the evaluation will provide day-to-day management of the evaluation and supervision of the team of researchers across all the evaluation sites.

A team of researchers will conduct the data collection and analysis with each researcher responsible for one to two sites, facilitating a brief, yet intense period of data collection. Similar to other qualitative studies on the implementation of digital tools (Qian et al. 2019), this will involve each researcher analysing the fieldnotes, RAP sheets, and documentation they have gathered at the end of each day. To streamline the data collection, analysis and interpretation the project team will meet on a weekly basis during the preparation and data collection periods. This will maintain momentum and focus during periods of intense activity. The research team will meet less frequently during phase three, when the findings from across the research are being synthesised around themes since we expect the researchers to work more independently in this phase.

The co-PIs will monitor progress of the project against deliverables and will maintain a risk register. They will bring any risks to the quality or timeliness of the project to the attention of the SOCRATES co-Directors as early as possible to agree a course of corrective action with the SOCRATES Management Group. This will be discussed with the NIHR and the SOCRATES Steering Committee where necessary.

The co-PIs will report to the SOCRATES Management Group on a monthly basis, or more frequently if requested by the co-Directors, to ensure effective monitoring of projects, integration of projects within SOCRATES processes and activities, and the timely identification and mitigation of risks to delivery.

7.2 Public and stakeholder involvement

SOCRATES evaluation projects have a particular approach. We aim to work with stakeholders to ensure coproduction of the maximum number of elements of each study possible within the time, relationships and resources available and we will chart what we achieve as a lattice of participation (Larkins et al 2014). By stakeholders we mean Experts by Experience, the wider public and a range of professionals. We will seek to adopt a transformational approach (Needham and Carr 2009) in which stakeholders are not just consulted, but act as decision-makers to guide and implement the study. We will prioritise stakeholder involvement in establishing the goals and focus of evaluations, promoting attention to equality, diversity and inclusion, cocreating a theory of change and assessing the acceptability of any research questions. We will ensure stakeholder involvement in selecting methods, analysing findings, making recommendations and creating and sharing outputs. Where appropriate and feasible (adopting a trauma informed approach and with attention to timescales and resources) experts by experience or other stakeholders will be employed as peer researchers.

We have created an evaluation advisory network (EAN) for the evaluation, which will expand as we recruit sites. Initial coproduction activities have included an online meeting with professionals and hybrid meetings with experts by experience and the public. These events helped shape the goal, focus and research questions, the theory of change and methods, equality and diversity priorities and plans for further coproduction. The EAN includes members of the SOCRATES public advisory panel and networks as well as experts by experience.

Further experts by experience and other stakeholders will be recruited from the sites in which we work. The composition and format of the network will vary according to the interest and availability of people in each site. Within the context of DSCRs and coproducing research in residential care settings we are aware that there will be pressures on people's time and that flexible early engagement, building trusting relationships and clarity of expectations will be key (Hallam-Bowles et al 2022).

The network will meet in hybrid (in person and online) meetings and seek to redress inequalities in power dynamics. Experts by experience will be recompensed for their time at standard rates. Wishes for support and training will be assessed and responded to. This may involve experts by experience delivering training to the academics involved as well as public advisors and other stakeholders themselves receiving orientation to aspects of research (Larkins and Satchwell 2023). It will require the academics and other EAN members to engage in ongoing reflection about how decisions are being made and how parity of participation can be promoted.

8 ETHICAL AND REGULATORY CONSIDERATIONS

8.1 Assessment and management of risk

The key risks to the project relate to:

- Delays in recruitment of the sites and providers. We have managed this risk by extending the preparation period to allow time to recruit sites and providers, and by developing relationships with key sector leaders who have good reach into ICSs, LAs and providers. They are advising on the project and are helping with recruitment. Should we find it difficult to recruit providers via ICSs our direct links into LAs and providers through these sector leaders will provide another route to recruitment.
- Delays in the ethics and research governance approvals. We have managed these risks by extending the preparation period and by splitting the ethics application process into two stages, as ethics approval for interviews with people who draw on care and their family members takes longer than approval to interview staff.
- Delays in the recruitment of staff, people who draw on care and their family members are being managed through light touch and in-depth case studies. By starting with a larger number of providers than we need for the more in-depth work in phase two we hope to minimise the consequences of drop-out due to unforeseen circumstances.
- Risks to participants and researchers are expected to be minimal. We have processes in places for safeguarding our researchers in the field and wellbeing support is available. While unlikely, should it happen we have processes for managing any distress felt by interviewees. Should interviewees disclose

information that suggests they or another are at risk of harm, we have a process to guide researchers as to how such disclosures should be escalated.

- All providers who receive funding to implement DSCRs from NHS England via the ICSs are required to report data about costs and benefits. This may make it difficult for care providers in the adoption phase to engage with the economic strand of the work, as they may feel the request is too burdensome. We will explore whether it is possible to draw on the data they are already reporting, to minimise the burden. If this is not feasible then we should gather some information about the resources required to set-up DSCRs through the phase one and two interviews, which would enable us to construct a less detailed economic case.

8.2 Research Ethics Committee (REC) and other regulatory review & reports

This study will require ethical review, and research governance approvals.

The phase one research will require NHS research governance approval from the Health Research Authority (HRA) in order to work with the ICBs to recruit social care providers into the project. This should take less than a month. Since we intend to work with more than three LAs research governance approval from the Association of Directors of Adult Social Services (ADASS) is also required. ADASS approvals take a week to process where previous discussion with the ADASS research committee has taken place as is the case for this project. Since we plan only to interview the senior leadership of care providers and of DSCR suppliers in stage one, in addition to the research governance approvals, we will require ethical review by a university ethics committee. This should take approximately a month to complete.

In addition to the above approvals, the phase two research will require approval from the Social Care Research Ethics Committee (SC-REC) in order to speak with people who draw on services and their families. This approval will take three months.

8.3 Peer review

In accordance with standard procedures for SOCRATES studies this draft protocol has been discussed with and reviewed by members of the SOCRATES Management Group. A draft version of the protocol has been reviewed by the SOCRATES Steering Committee and funder. The final version has been reviewed by the SOCRATES Steering Committee and by the funder.

8.4 Data management and participant confidentiality

A data management plan is available. The data management plan outlines how the study will comply with data protection regulations. For SOCRATES projects there is an agreed approach to managing access to and the sharing of data across the collaborating institutions. The data management plan outlines this approach and arrangements for storage, transfer and archiving of data collected. It also sets out processes for ensuring the confidentiality of personal or sensitive data.

9 DISSEMINATION AND OUTPUTS

As with all SOCRATES projects we will produce a final report for the NIHR and peer-reviewed journal articles. At this stage we are envisaging an article reporting on the rapid scoping review, and at least one article reporting on the findings from the rapid evaluation.

Nurturing and building on relationships with the SOCRATES network and evaluation advisory network is central to our approach to knowledge exchange (Best and Holmes 2010). We will co-produce the communication strategy and plan for the evaluation with the evaluation advisory network. We envisage that the strategy and plan will look at each of the following aspects: informing action at the case study sites, informing action beyond the case study sites, and informing future rapid evaluations.

An initial proposal co-produced with our advisors is that we will hold workshops with the LA commissioners, ICB leads for social care digitisation and care provider associations at the sites to explore what the evidence we have collected, alongside other evidence they may hold, means for their current practices and ways of working. Further proposals for wider dissemination could include learning events with people from across the sector, to develop resources and facilitate uptake of findings, but these ideas will be co-produced with our advisors as the work progresses and our findings become clearer.

To support this strategy, we will produce materials that enable others to have conversations about the evidence we gather around to ensure fast uptake of findings. We envisage that the evidence will have the following insights for ICBs, LA commissioners and social care providers to act on:

- Help to understand how to meet their targets with respect to DSCR adoption and implementation
- The particular areas in which adoption of DSCRs is meeting or failing to meet people's expectations
- How organisations can get the most out of DSCR implementation so it helps them to deliver against their priorities and goals.
- How people can get the most out of DSCR implementation, so it helps them to take control of their lives, support others to achieve their personal goals, and do their jobs well and in a way that gives them personal satisfaction.
- How people (including care workers) feel about the data that is being stored about them within DSCRs and what might help people to feel more confident and comfortable.
- What needs to be considered to ensure DSCRs do not worsen inequalities or existing challenges within the system.

This evidence will be packaged into accessible summaries (using visual ways of displaying information) to share with the evaluation advisory network (if this is their preferred way of working with us) to facilitate analysis and interpretation at each cycle. These interim summaries will also be given to sites and providers to ensure findings are feeding back into action at each site. We will also produce a co-created final summary of findings and a short accessible briefing report of findings (including illustrations) to share more widely.

Additionally, as a learning organisation, we will set aside time during and after the project to reflect on what went well and less well to ensure we capture and record what we are learning to improve how we do future rapid evaluations. We will make change to our processes and consolidate what we have learned in blogs and academic publications.

10 REFERENCES

Bauer A, Wistow G, Dixon J, Knapp M (2014), Investing in advocacy for parents with learning disabilities: what is the economic argument, *British Journal of Learning Disabilities, 43(1):*66-71.

Best A, Holmes B. (2010) Systems thinking, knowledge and action: Towards better models and methods. *Evidence and Policy; 6:*145–59. Doi:10.1332/174426410X502284

Bianchi, P. & Trimigno, M. (2021). How does information system success come about in inter-organizational networks of public services? *Public Money & Management. 41:3*, 236-245. DOI: 10.1080/09540962.2019.1665361

DHSC. (2021a). People at the Heart of Care: Adult Social Care Reform White Paper. Retrieved August 18, 2023, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1061870/people-at-the-heart-of-care-asc-reform-accessible-with-correction-slip.pdf

DHSC. (2021b). What Good Looks Like. Retrieved August 18, 2023, from https://transform.england.nhs.uk/digitise-connect-transform/what-good-looks-like/what-good-looks-like-publication/

DHSC. (2022). Joining Up Care for People, Places and Populations: The Government's Proposals for Health and Care Integration. Retrieved August 18, 2023, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1055687/joining-up-care-for-people-places-and-populations-web-accessible.pdf

DHSC. (2023). Next Steps to Put People at the Heart of Care: A Plan for Adult Social Care System Reform 2023 to 2024 and 2024 to 2025. Retrieved August 18, 2023, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1148559/next-steps-to-put-people-at-the-heart-of-care_a-plan-for-adult-social-care-system-reform-2023-to-2024-and-2024-to-2025.pdf

Digital Social Care. (2022, July 12). Digitising Social Care Fund [Internet]. Retrieved August 18, 2023, from https://www.digitalsocialcare.co.uk/digitising-social-care-fund/

Gopidasan, B, Amanullah, S, Adebowale, A (2022) Electronic Medical Records – A Review of Cost-Effectiveness, Efficiency, Quality of Care, and Usability. *Journal of Psychiatry Spectrum 1(2):* p76-79, Jul–Dec 2022. DOI: 10.4103/jopsys.jopsys_17_22r

Greenhalgh T, Stones R. (2010) Theorising big IT programmes in healthcare: strong structuration theory meets actor-network theory. *Soc Sci Med. 70:*1285-94

Greenhalgh T, Wherton J, Papoutsi C, Lynch J, Hughes G, A'Court C, Hinder S, Fahy N, Procter R, Shaw S (2017) Beyond Adoption: A New Framework for Theorizing and Evaluating Nonadoption, Abandonment, and Challenges to the Scale-Up, Spread, and Sustainability of Health and Care Technologies. *J Med Internet Res;* 19(11):e367

Greenhalgh T, Maylor H, Shaw S, Wherton J, Papoutsi C, Betton V, Nelissen N, Gremyr A, Rushforth A, Koshkouei M, Taylor J (2020) The NASSS-CAT Tools for Understanding, Guiding, Monitoring, and Researching Technology Implementation Projects in Health and Social Care: Protocol for an Evaluation Study in Real-World Settings. *JMIR Res Protoc*;9(5):e16861. https://www.researchprotocols.org/2020/5/e16861

Greenstock, J. (2021). Benefits of Digital Social Care Records. Rapid Review. The Strategy Unit. Retrieved from https://www.strategyunitwm.nhs.uk/sites/default/files/2022-23/Benefits%20of%20Digital%20Social%20Care%20Records%20v7_0.pdf

Hallam-Bowles, F.V., Logan, P.A., Timmons, S. et al. Approaches to co-production of research in care homes: a scoping review. Res I*nvolv Engagem* 8, 74 (2022). https://doi.org/10.1186/s40900-022-00408-z

Kaihlanen, A.; Laukka, E.; Nadav, J.; Närvänen, J.; Saukkonen, P.; Koivisto, J.; Heponiemi, T. (2023). The Effects of Digitalisation on Health and Social Care Work: A Qualitative Descriptive Study of the Perceptions of

Professionals and Managers. *BMC Health Services Research. 23(714).* DOI: https://doi.org/10.1186/s12913-023-09730-y.

Keith, R.E., Crosson, J.C., O'Malley, A.S. et al. (2017)Using the Consolidated Framework for Implementation Research (CFIR) to produce actionable findings: a rapid-cycle evaluation approach to improving implementation. *Implementation Sci 12, 15*. https://doi.org/10.1186/s13012-017-0550-7

Knapp M, Bauer A, Perkins M, Snell T (2012), Building community capital: is there an economic case? *Community Development Journal, 48(2)*:313-331.

Kruse, C. S., Mileski, M., Vijaykumar, A. G., Viswanathan, S. V., Suskandla, U., & Chidambaram, Y. (2017). Impact of Electronic Health Records on Long-Term Care Facilities: Systematic Review. *JMIR Medical Informatics, 5(3).* https://doi.org/10.2196/MEDINFORM.7958

Larkins C, Crook D, O'riordan Z, Thomas D and Froggett L (2023 forthcoming) We Can Connect: Imagining the Future of Digital Practice with and by Care Experienced Children and Young People. *Adoption & Fostering*.

Larkins, C., Kiili, J., & Palsanen, K. (2014). A lattice of participation: reflecting on examples of children's and young people's collective engagement in influencing social welfare policies and practices. *European Journal of Social Work*, *17*(5), 718-736.

Larkins, C., & Satchwell, C. (2023). Learning How to Know Together: Using Barthes and Aristotle to Turn From 'Training' to 'Collaborative Learning' in Participatory Research with Children and Young People. *International Journal of Qualitative Methods*, *22*. https://doi.org/10.1177/16094069231164607

Litchfield I, Glasby J, Parkinson S, Hocking L, Tanner D, Roe B, Bousfield J, (2023) "Trying to Find People to Fit the Tech…": A Qualitative Exploration of the Lessons Learnt Introducing Artificial Intelligence-Based Technology into English Social Care, *Health & Social Care in the Community*. https://doi.org/10.1155/2023/9174873

Lupton, D. (2018). How do data come to matter? Living and becoming with personal data. *Big Data & Society, 5(2).* https://doi.org/10.1177/2053951718786314

Maguire et al. (2018). Digital change in health and social care. Kings Fund. Retrieved September 8, 2023, from Summary_digital_change_health_care_Kings_Fund_June_2018.pdf (kingsfund.org.uk)

Needham, C., & Carr, S. (2009). *Co-production: an emerging evidence base for adult social care transformation*. Social Care Institute for Excellence. https://lx.iriss.org.uk/sites/default/files/resources/Co-production.pdf

Nguyen, KH., Wright, C., Simpson, D. et al. (2022) Economic evaluation and analyses of hospital-based electronic medical records (EMRs): a scoping review of international literature. *npj Digit. Med. 5, 29*. https://doi.org/10.1038/s41746-022-00565-1

NHS Transformation Directorate (2023). Data Saves Lives Implementation Update. Retrieved August 18, 2023, from https://transform.england.nhs.uk/key-tools-and-info/data-saves-lives/data-saves-lives-implementatiData Saves Lives Implementation Updateon-update/

NHS Transformation Directorate. (n.d.). Digitising Social Care Fund [Internet]. Retrieved August 18, 2023, from https://transform.england.nhs.uk/key-tools-and-info/adult-social-care-digital-transformation/digitising-social-care-fund/

Persson, J. et al. (2023). How Digital Systems Are Used in Swedish Home Care Nursing Practice: A Qualitative Interview Study to Identify Challenges and Opportunities. CIN: Computers, Informatics, Nursing. 41:8. pp586-594. DOI: 10.1097/CIN.0000000000001006

Pettigrew, A.M., Woodman, R.W., Cameron, K.S., 2001. Studying organizational change and development: Challenges for future research. *Acad. Manag. J. 44*, 697–713. https://doi.org/10.2307/3069411

Qian, S. et al. (2019). Contradictions in information technology mediated work in long-term care: An activity theoretic ethnographic study. *International Journal of Nursing Studies 98*. 9–18. https://doi.org/10.1016/j.ijnurstu.2019.05.017

Ritchie J, Lewis J (2003) *Qualitative research practice: a guide for social science students and researchers*. London: Sage

Schneider-Kamp, A. (2021). The Potential of AI in Care Optimization: Insights from the User-Driven Co-Development of a Care Integration System. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing. Vol. 58*. 1–11. https://doi.org/10.1177/00469580211017992

Shiells, K., Diaz Baquero, A.A., Štěpánková, O. et al (2020). *BMC Medical Informatics and Decision Making.* 20:159. https://doi.org/10.1186/s12911-020-01160-8

Skivington K, Matthews L, Simpson S A, Craig P, Baird J, Blazeby J M et al. (2021) A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ*; 374: n2061 doi:10.1136/bmj.n2061

Stake R (2006) *Multiple Case Study Analysis.* London: The Guildford Press

Steiner O (2021) Social work in the digital era: Theoretical, ethical and practical considerations. *The British Journal of Social Work*; 51(8): 3358-3374

Sugarhood, P., Rouncefield, M. (2018). Summary of Key Findings. Occupational Therapists and Digital Care Records: Exploring Health and Social Care Integration through Ethnography. UK Occupational Therapy Research Foundation. Available at: UKOTRF Key findings_Dr Paul Sugarhood.pdf (rcot.co.uk)

Vindrola-Padros, Cecilia and Chisnall, Georgia and Polanco, Natalia and Vera San Juan, Norha, (2022) Iterative Cycles in Qualitative Research: Introducing the RREAL Sheet as an Innovative Process. Available at SSRN: https://ssrn.com/abstract=4162797 or http://dx.doi.org/10.2139/ssrn.4162797

Vindrola Padros C. (2021) *Doing Rapid Qualitative Research*. London: Sage

Vindrola-Padros, C., Brage, E., & Johnson, G. A. (2021). Rapid, Responsive, and Relevant?: A Systematic Review of Rapid Evaluations in Health Care. *American Journal of Evaluation, 42(1),* 13–27.

Vindrola-Padros C. & Vindrola-Padros B. (2017). Quick and dirty? A systematic review of the use of rapid ethnographies in healthcare organisation and delivery. *BMJ Quality & Safety*, bmjqs-2017–007226. https://doi.org/10.1136/bmjqs-2017-007226

Yao, R., Zhang, W., Evans, R., Cao, G., Rui, T., & Shen, L. (2022). Inequities in health care services caused by the adoption of digital health technologies: scoping review. *Journal of Medical Internet Research*, 24(3), e34144.

Ylönen K (2023) The use of Electronic Information Systems in social work. A scoping review of the empirical articles published between 2000 and 2019, *European Journal of Social Work, 26*:3, 575-588, DOI: 10.1080/13691457.2022.2064433

Zakocs R, Hill JA, Brown P, Wheaton J, Freire KE. (2015) The Data-to-Action Framework: A Rapid Program Improvement Process. *Health Educ Behav.* Aug;42(4):471-9. doi: 10.1177/1090198115595010.

11 APPENDICES

11.1 Appendix 1 – Summary of discussions with national stakeholders

In an initial stage of discussions, we spoke to 37 stakeholders, including members of the public and people who draw on services and their family and friends, academics engaged in studying digital social care records or technology adoption more broadly, staff from LAs (including representatives of the Local Government Association and Association of Directors of Adult Social Services), people working in the charitable sector (including representatives of provider associations and trade bodies for providers), people representing care workers and social workers, NHS England staff, and people from think tanks and evidence intermediaries. We have spoken to people from across children's and adult social care, but here we summarise only the views of people from the adult social care context because of the decision to focus this evaluation on adult social care.

Orientation of the research

- Needs to focus on maximising the value of DSCR implementation for individuals, organisations and local systems; should not serve ministerial priorities
- Identify issues / challenges people are facing with implementation; help people to address issues in their own systems, which could include identifying groups for whom the business case for DSCRs does not stack up
- Identify good work that is happening; draw out good practice; help people to see and capture the value of DSCRs for individuals, organisations and the system
- Understand implementation of DSCRs as a process that continues after initial adoption and includes working with the previous system, integrating into work practices within the organisation and across organisations
- Digital poverty and exclusion repeatedly mentioned; research needs to consider inequalities given workforce on minimum wage, many are older and people drawing on care are also often on low incomes & older

Evidence that would be helpful

- Understanding why providers adopt or do not adopt DSCRs, in the context of current policy and this being a business decision, requiring ongoing investment / forgone opportunities
- Understanding how DSCRs are used and what they are used for by different end users (care workers, family/resident, managers), in the context of the DSCR's functionality, including functions that allow family/resident or other professionals to view DSCRs, care workers to view data held by other organisations/professionals, transfer of data into DSCR or from DSCR to records held by other organisations/professionals, etc.
- Understanding how DSCRS affect different people/groups, how they communicate with and relate to each other, and how work is done; what practices / relationships do DSCRs constrain / enable; how this plays out for different people, across different settings and systems that may have different priorities
- Understanding unintended consequences of DSCR implementation in different settings; whether the experiences across settings are similar or different
- Understanding whether the expectations for DSCRs are too high and how they can be managed to be more realistic
- Understanding the benefits of DSCRs (quantitative evidence)

We then held workshops with two groups of members of the public and 6 people working in social care to find out ideas about social care records going digital. We met with people online and face to face in their own group settings. We asked for advice on the important issues to investigate and how to do the research.

We set out:

- The advice people gave about issues to focus on and methods to use
- How we have used this advice
- What advice we cannot take forward in this evaluation

The advice people gave

We asked people about their hopes for digital social care records, and what it will be like if things are going well. This is a summary of what people said:

Involvement

- The record will be written/recorded with the person
- People will understand the digital care recording process and be involved in their care recording process (inclusion of more people in their care recording)
- People will know whose role it is to do what
- Advocacy will be available if needed
- Better communication between professionals

Access and ownership

- People will know how to easily access their records (without going through professionals) and feel sure it is accessed only by the right people
- Technology will be available and accessible to all, or an alternative to tech will be offered free to people who need it (eg paper). access will be supported for people who are not comfortable with digital communication
- The record will only be accessed by the right people and data will be stored safely
- Permissions can be given to chosen family and friends to access records
- Professionals will be able to access records when they need to

Quality of information held in record

- Records will be written in accessible language in a way that is person centred and tells a clear story
- Health information will flow back into care records
- Records will contain more accurate up to date information on what is happening in people's lives and what is planned
- History - all information will be there, not just recent

Outcomes for people and families/friends

- People will not have to retell the same information

- People will get better information about their own care
- People will experience more autonomy and will feel more in control of their lives and more power over decision making
- Working relationships will be more meaningful and support will be more consistent
- People will get better digital skills
- Family and friends will be able to know what is happening with their loved ones (if they have been given permission)

Outcomes for care workers

- Care workers will have more time to care (workers will feel supported not overburdened)
- Care workers will feel more satisfied by the care they are able to give, working relationships will be more meaningful
- Care workers will get better digital skills
- Care worker status will be increased

Outcomes for organisations and systems

- Physical storage requirements reduced
- Useful data sets are created
- Benchmarking is possible
- Data sets are used to improve prevention and quality of care
- Data sets are used to gather information and improve care worker working lives

The concerns that people talked about were that the opposite of all of this would happen – for example less access to information, more exclusion of people, less time for quality care relationships.

We also asked people about **how we should do an evaluation**. This is a summary of what people said**:**

- Focus on exploring a breadth of situations rather than developing an in-depth understanding of one context.
- Do interviews online
- Do interviews face to face
- Do a survey
- Don’t use all your time on a survey as it can be superficial
- Do creative activities that engage people in the places where they live
- Involve peer researchers
- Talk to people and their families and friends, workers and commissioners
- Look at the costs and benefits
- Do the research in enough places with enough people that the evidence will be strong and convincing
- Include both care homes and home care agencies, as they are different settings facing different challenges.

- Include organisations using different DSCR systems as they have different functionality, pricing structures and offer different ranges of customer services.
- Looking at organisations at different stages in their implementation journey
- Capture a mix of rural and urban settings.

The sorts of things people wanted the **evaluation to find out and achieve** are:

- To explore people's expectations and assumptions about what DSCRs would deliver, and compare this to reality.
- Focus on what care services are trying to achieve and explore the place of DSCRs in that, whether they are enhancing or detracting from people's experience.
- Understand whether DSCRs are helping to manage relationships with relatives, how people (including care workers) feel about the data stored about them on DSCRs.
- Consider the potential for going digital to worsen inequalities and existing pressures on the system.
- Educate commissioners about the benefits of DSCRs in a way that goes further than cost savings alone, for example using data to improve care quality.
- Provide insights for action.

How we have used this advice

We think we can do most of the things people have suggested if we do a two stage evaluation to find out what is happening where, with a particular focus on positive or negative experiences of:

- What is getting in the way / facilitating
- People being able to contribute to their care planning and having more voice and say over what is recorded and how
- Ownership and safety of their data (especially in terms of storage),
- Any changes to how they experience care, including around relationships and organisational boundaries.
- Influence of DSCR on workers' experience of giving care, especially with regards to the amount of time they have to care.
- Influence of DSCR on people's experiences.
- Access – for people, family and friends and professionals
- Accessibility – recording audio, videos and pictures, using within multi-disciplinary teams.
- Use of DSCR for quality improvement

We will do this by:

- Focusing on breadth rather than depth by finding four different locations and talking to people in different settings within each area
- Coproducing the details of what we do with people in the different locations
- Doing interviews with different people in each place. This will include managers and owners, care workers and people drawing on care and their family/friends.
- Doing a survey using this information
- Discussion with commissioners

There are some things that we cannot take forward

Suggestions from the public advisory network that the research team cannot implement:

1. Asking system suppliers to share their data with the research team for analysis

It would be too complicated to access given the time constraints of a rapid evaluation. For example, navigating ethical approval and GDPR regulations

2. Conducting an ethnography

Based on the feedback from most people in the group, it has been decided that the evaluation will focus on gathering data that captures more breadth than depth.

3. Conducting a cost benefit analysis

One group member suggested that we look at the cost benefits of DSCR implementation. We don't think this is feasible in the time, but we will look for ways of understanding economic impacts.

4. Speaking to people in the wider system

There were suggestions to speak to staff from health, allied health professionals, people in complaints departments, commissioners, system suppliers, the regulator, data analysts and other people based in the care home. Given the decision to understand experiences across a breadth of contexts, we cannot also speak to such a wide variety of people with the resources available.

5. Make the DSCRs more accessible

A suggestion was that we could focus our research on making DSCRs more accessible. This would require a research project rather than an evaluation, and would require skills in design and coding. This is beyond the scope of the work of SOCRATES. It may be, however, that our research has implications for how DSCRs could be more accessible.

6. Explore how data can be stored and kept safely

As above this would require a research project rather than an evaluation and skills in IT security. It is beyond the scope of SOCRATES. We will however be exploring people's concerns about the safety.

11.2 Appendix 2 – Rapid scoping review of the literature

A protocol for this review was drafted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR). It was revised by the research team, the LSE Library Review Service and the King's College London Library Review Service. The final protocol has been registered prospectively with the Open Science Framework, but is currently embargoed subject to agreement from NIHR to proceed with this work.

We are currently extracting information from the 27 articles include in the review; this does not include a small number of works from the grey literature that are yet to be screened for inclusion. Extraction is proceeding in two stages, concentrating first on the types of papers included. We summarise below the findings from the first stage, and the 17 out of the 27 studies we have analysed so far. In the next stage of the review we will extract information from the remaining ten studies and about the findings from the articles.

Methods employed by the studies

Table 2: Methods used in included studies analysed so far

Study design – as stated in the study	
Qualitative	11
Quantitative	2
Mixed methods	4
Methods	
Qualitative:	
Interviews / focus groups	9
Ethnography (e.g., interviews, observation, document analysis)	2
Open response survey / questionnaire	2
Review of documentation, e.g., case audits, legislation, reporting documents	1
Secondary analysis	1
Mixed methods:	
Review of documentation, e.g., case audits, legislation, reporting documents	2
Open and closed response survey / questionnaire	3
Interviews / focus groups	2
Quantitative:	
Closed survey / questionnaire	2

* Some methods totals greater than study design totals because some studies used multiple methods

Preliminary findings for all articles reviewed so far:

- Mostly qualitative studies to date – perhaps due to ‘newness’ of digital systems (studies have mentioned the pandemic being the trigger for rapid rollout of digital tools). Perhaps as a result:
  - Most studies are exploratory; most are descriptive rather than evaluative research
  - Few studies look at implementation over time (Bianchi & Trimigno, 2021 is an exception)
- Very few studies researching DSCRs in the UK
  - “While there is much research into DCRs in medicine and nursing, mostly focused on acute settings (Greenhalgh et al., 2009)”[1]
- The quality of studies is often low with a lack of methodological detail, such as:
  - how participants were recruited (e.g., Bianchi & Trimigno, 2021)
  - the number of participants (e.g., Bianchi & Trimigno, 2021)
  - the number of dropouts, demographic breakdown of participants (e.g., Johnston et al. 2022, Schaller et al. 2020)
  - how data was analysed (e.g., Bianchi & Trimigno 2021, Johnston et al. 2022)
  - addressing the risk of bias (e.g., Persson et al., 2023)
- EDI is only mentioned in three studies so far. However, EDI was not the focus of these studies – only passing mentions of potential issues relating to:
  - language barriers (Shenkin et al. 2022, Bail et al. 2021)
  - inequalities between public/private providers (Johnston et al. 2022)
  - and regional differences (Johnston et al. 2022)

- No studies we have analysed so far have used an implementation framework, but a number of studies have adopted a particular theoretical stance with respect to data collection and analysis (e.g. Computer Supported Cooperative Work (Sugarhood & Rouncefield, 2018); socio-technical systems theory (Shiells et al. 2020); activity theory (Qian et al. 2019); design theory (Persson et al. 2023)).

Settings and participants explored in studies reviewed so far

Table 3: Settings and participants in studies included in the review (n=27)

Country		
UK	7	
Not UK	20	
Setting		
Care homes	4	
Long-term care home	1	
Continuing health care	1	
Home care	5	
Multi-sector (health and social care)	2	
Social care providers	1	
Community services	1	
Nursing homes/nursing facilities	8	
Health centre	2	

Table 3: Settings and participants in studies included in the review based in the UK (n=27)

Country		
England	4	
Scotland	3	
Setting		
Care homes	3	
Multi-sector (health and social care)	3	
Continuing health care	1	
Population		
Older people	3	
Adult or older people	1	
Population not specified	3	
Study informants*		
Social care staff	3	
Health care staff	2	
Social care managers	2	
Health care managers	2	
People who draw on services / carers	0	

Regional-level stakeholders	1	
National level stakeholders	1	
Digitalisation stage		
DSCR implementation	4	
Integration of health and social care records/systems	3	

* Total greater than 7 because some studies collected information with different types of informants

Preliminary findings for all articles reviewed so far:

- There are no studies exploring digital record implementation in home care agencies in the UK although there is international evidence
- There are no UK-based studies exploring the perspectives of people who draw on services and their families/carers
- Studies in the UK have focused more on services supporting older people, with less attention to services supporting other client groups e.g., people with learning disabilities, younger adults with disabilities.

11.3 Appendix 3 – Rapid review of the policy landscape

Social care in a digital landscape

The demand for social care and support is vast in scale. In the year 2021-22, 817,915 clients were receiving long term care in England (1). In the same year, Local Authorities (LAs) received almost two million requests for adult social care support from 1.4 million new clients (1). This follows a long-term upward trend in requests for support, which were nine percent higher in 2021-22 than they were in 2015-16 (2).

It is estimated that the need for social care will continue to grow due to longer life expectancies, improved diagnosis, and increased survival rates for premature babies (3, p. 10). The impact of COVID-19 on physical and mental health is also expected to add to the future demand for social care (3, p. 10). Digitisation of the health and social care sector has been posed as a way to help deal with increasing demand, by freeing up time for providers and improving the quality of care (4, p. 10).

Despite the growing scale of social care and the potential technology holds, before the pandemic there was no national source of data from providers on capacity, workforce status, and numbers of people receiving care (3, p. 87). As most data was captured through aggregate annual returns from LAs, information on people who are privately funding their care or receiving unpaid care was missing from understandings of the care system.

The onset of COVID-19 in 2020 pushed the rapid uptake of technology in the sector. The creation of new digital tools and emergency data measures provided real-time information that supported people's care through remote monitoring, provided care teams with easier access to the right information, and helped services identify people in need. This data was also used by the government to manage the pandemic, leading to an increase in its understanding of "how the system works and the sector-wide benefits that can accrue from increased data sharing" (3, p. 88). Services also saw benefits to the newly implemented technology. In 2021, a survey of 608 care providers found that 90 percent of 608 care providers thought their organisation would continue to use technology in the same way as during the pandemic (5, p. 168). Since the pandemic eased, the government has continued efforts to expand the digitisation of the sector, an ambition that has been compared to the rapid adoption of GP digital systems in the 1980s, which increased from under 5% in 1980 to over 90% in 1992 (4, p. 10).

Digital Social Care Records (DSCRs) are part of the wider government push to digitise health and social care. DSCRs make possible the digital recording of care a person receives within a social care setting, replacing traditional paper records. They aim to allow information to be shared securely and in real-time across social care and the NHS, freeing up time spent by care workers and managers on administrative tasks and giving them the information needed to deliver care (6). Similar records have recently been introduced in other parts of the sector, including electronic patient records and primary care records (7).

Despite the rise in technology use across the social care sector and an increased understanding of its benefits, the uptake of DSCRs has been slower than the government would like. In 2021, it reported that only 40 percent of social care providers were fully digitised, with the rest still using paper records (3, p. 44). Meanwhile, the rate of adoption had been slow, at just three percent per year (3, p. 44).

Recent policy developments

Against this backdrop, the government has been placing stronger emphasis on the use of technology in social care, with DSCRs a key feature of recent policy developments. In 2021, the white paper *People at the Heart of Care* laid out a 10-year vision for government reforms to social care in England. The vision revolved around three main objectives:

1. People have choice, control, and support to live independent lives
2. People can access outstanding quality and tailored care and support
3. People find adult social care fair and accessible (3, p. 7).

A key piece of legislation underpinning these objectives was the Care Act 2014, with the vision building on its focus on wellbeing. More broadly, the foundations of these reforms can be traced back to the Mental Capacity Act 2005, the Health and Social Care Act 2008, the Health and Social Care Act 2012, as well as the more recent Health and Care Act 2022 (which was going through Parliament when *People at the Heart of Care* was published) (3, p. 82). The latter has also been significant in formalising pre-existing Integrated Care Systems (ICSs), making them statutory. The Health and Care Act 2022 also consolidated Integrated Care Boards (ICBs) and Integrated Care Partnerships (ICPs), which are core elements of ICSs, by providing them with statutory status.

DSCRs play an important role in this government vision, contributing to the objective of providing quality and personalised care. By helping care professionals to have access to the right digitised information, successful DSCR implementation means support can be joined up across different providers. This then creates a more seamless care experience and prevents people from having to retell their stories multiple times. The timely access DSCRs can provide to relevant information also means that professionals are better able to provide people with comprehensive, personalised care. DSCRs can also reduce escalation of care needs, enabling proactive and preventative care that supports people's independence (8). Meanwhile, they allow approved unpaid carers, including family members, to view records, supporting the objective of giving people more control over their care.

To encourage DSCR uptake among care providers, in 2021 the government announced a minimum of £150 million of funding to be spent over a three-year period. This funding aimed to drive greater adoption of technology and achieve widespread digitisation across social care, supporting a digital transformation programme of which DSCRs composed a core element (3, p. 7, 44).

These proposals were backed by the new Health and Care Levy announced in September 2021, of which £5.4 billion was to be invested into adult social care reform over the next three years (3, p. 8). Beyond this timeframe, the government also announced plans to spend an increasing share of funding raised by the levy on social care in England (3, p. 8).

DSCRs also featured in the government's Plan for Health and Social Care (2022). This policy paper updated the government's vision for digital healthcare. It included reinforcing digital health targets within the NHS Long Term Plan, clarifying the responsibilities of the ICSs, and outlining aims to digitise the social care sector (7).

The digitisation of the social care sector is further supported by *Data Saves Lives*, the government's data strategy for health and care published in 2022. It lays out how data will be used in a safe, trusted and transparent way, outlining a vision for data that can pass smoothly between health and care. In this way, it aims to give people access to high quality, timely data to help them make choices about their care and improve outcomes (9, p. 36). The strategy focuses on data protection, aiming to standardise the approach to gathering individual consent to access data in a DSCR (8). This would mean that anyone registering with a social care provider can determine who their data is accessed by, including family members or other unpaid carers.

It also lays out a plan for DSCRs interoperating with Shared Care Records. A Shared Care Record combines all of an individual's separate records from primary care, secondary care, and social care together in one digital location, allowing each person to have a life-long, joined up health and care record (10). If successful, care providers will be able to link a person's DSCR to their Shared Care Record, joining up information at the level of an individual rather than the organisation. The goal is to equip the care workforce with the information needed to provide the right care, thereby improving integration between health and social care (8).

Progress to date and implementation milestones

In 2023, the subsequent *Next Steps to Put People at the Heart of Care* plan outlined the progress made so far in delivering the vision outlined in *People at the Heart of Care.* In this paper, the government announced that it had spent nearly £50 million to support digitisation of the sector and to ensure good data protection and cyber security practices (9, p. 18). As a result, it reported that provider uptake of DSCRs had increased by approximately 10 percent (9, p. 18). Other sources provide more specific data. In 2023, the NHS Transformation Directorate stated that, from a baseline of 40 percent uptake in December 2021, the Digitising Social Care programme had led to over 50 percent of providers now using digital systems, including DSCRs (11). In *Next Steps…* the government reported that it had also completed an Assured Supplier List, which included 12 software suppliers at the time of publishing, to support providers to invest in a DSCR solution that is compliant with interoperability and cyber security standards.

The *Next Steps…* plan indicated how the remaining £100 million would be spent over the next two years, which involved driving the rapid adoption of DSCRs (9, p. 19). It aligned dates with key milestones, including ensuring that 80 percent of Care Quality Commission (CQC)-registered providers, and over 80 percent of people receiving care, have a DSCR by March 2024:

Spring 2023:

- integrated care systems begin activity for financial year 2023 to 2024 to support the testing and scaling of care technologies
- guidance published on ‘what good looks like’ for digital working in social care

Winter 2023:

- all assured DSCR systems will enable care provider staff to view primary care information, where appropriate, for people in their care

Spring 2024:

- all assured DSCR systems will capture a minimum data set for social care providers, providing a standardised set of information that can be shared between care settings
- evidence base published following the testing of care technologies where they have demonstrated benefits to the safety and quality of care delivery
- 80% of CQC-registered providers, and at least 80% of people, have a DSCR

Spring 2025:

- published update to the evidence base of care technologies that have demonstrated benefits to the safety and quality of care delivery (9, p. 22).

This plan is in addition to DSCR-specific commitments laid out in *Data Saves Lives* (June 2022). Commitment 309 of this strategy involved developing a standards and capabilities roadmap for DSCR solutions which suppliers providing DSCRs are required to comply with (8). This roadmap was completed in May 2022. It was co-designed with the adult social care sector and includes data and reporting standards that allow providers and commissioners across the NHS and adult social care to access information. The next phase of this commitment involved developing a process to consolidate existing social care terminology standards, which was to be completed by March 2023. It is not clear whether this milestone has been met.

In June 2023 the NHS Transformation Directorate (formerly NHSX) published an update on the implementation of the commitments laid out in *Data Saves Lives*. This included more detailed information on the implementation and timelines of the DSCR solutions provided by suppliers. It reported that, by January 2024, all assured DSCR solutions will be expected to enable proportionate access to GP record information for authorised staff within providers (11). At the time of publication, three of the assured DSCR solutions had enabled access to GP record information for over 3,000 staff across more than 1,000 providers (11). Looking ahead, the update identified potential for further improvements to enabling information sharing between the NHS and social care (11).

The government has also made commitments to developing Shared Care Records in relation to DSCRs. In *Data Saves Lives*, it was reported that 100 percent of ICSs had put a basic Shared Care Record in place (8). In addition to this, in the February 2022 white paper on the integration of health and care, *Joining Up Care for People, Places and Populations*, the government committed to ensuring that care providers would be able to connect to their local Shared Care Record within six months of having an operational DSCR in place (12, p. 42). This would help enable care staff to appropriately access and contribute to Shared Care Records, thus ensuring that these cover an individual’s whole lifespan and include both health and care, which they currently do not (9, p. 36; 12, p. 42). It was also announced in *Joining Up Care…* that the government will reinforce the use of the NHS number universally across social care to support this (12, p. 42). Work is also underway to enable citizens to be able to access and contribute to their Shared Care Records, building on recent developments in this area (12, p. 42).

The role of ICSs and other bodies and tools

ICSs bring together NHS, local authority and third sector bodies in partnership to plan and deliver joined up health and care services within an area. Their aim is to deliver better, more integrated care for patients. There are 42 ICSs in total, with each comprised of various components:

- Integrated Care Partnership (ICP): A statutory committee jointly formed between the NHS integrated care board and all upper tier LAs that fall within the ICS area. The ICP will bring together a broad alliance of partners concerned with improving the care, health, and wellbeing of the population, with membership determined locally. The ICP is responsible for producing an integrated care strategy on how to meet the health and wellbeing needs of the population in the ICS area.
- Integrated Care Board (ICB): A statutory NHS organisation responsible for developing a plan for meeting the health needs of the population, managing the NHS budget, and arranging for the provision of health services in the ICS area. The establishment of ICBs resulted in clinical commissioning groups (CCGs) being closed down.
- LAs in the ICS area, which are responsible for social care and public health functions, as well as other vital services for local people and businesses.
- Place-based partnerships within each ICS lead the detailed design and delivery of integrated services across their localities and neighbourhoods. The partnerships involve the NHS, local councils, community and voluntary organisations, local residents, people who use services, their carers and representatives, and other community partners supporting the health and wellbeing of the population.
- Provider collaboratives, which bring providers together to achieve the benefits of working at scale across multiple places and one or more ICSs, to improve quality, efficiency, and outcomes, and address unwarranted variation and inequalities in access and experience across different providers (13).

An interactive map of the ICSs has been published here.

The government views ICSs as integral to DSCR implementation. ICSs have been invited to apply to the Adult Social Care Digital Transformation Fund (also referred to as the Digitising Social Care Fund) in order to support care organisations in their local areas with digitisation, including DSCR implementation. A total of £8.2 million was set aside for this fund for 2021/22 (14), and a further £25 million was set aside for 2022/23 (15). In the 2022/23 period, it has been reported that 13 ICSs have received funding of up to £679,500 each to distribute among care providers, which need to apply through their ICS to receive the funding (14). The government has also been supporting the piloting of care technologies, including DSCR implementation activities, across ICSs to build an evidence base for their impact (16).

The NHS Transformation Directorate is helping social care and NHS organisations implement DSCRs by providing support and guidance to the sector. This has included:

- Launching the aforementioned Assured Supplier List to give organisations quicker and easier access to quality-assured, supplier solutions that comply with a minimum set of capabilities and standards for DSCR solutions

- Developing a suite of care provider guidance, which includes masterclasses, buyer guidance, model contracts, template commercial schedules, template specifications and device guidance
- Partnering with Digital Social Care to provide a national support offer to the sector – this partnership includes a series of monthly care provider masterclasses, run for care providers by care providers. Digital Social Care is a partnership made up of seven social care organisations, funded by NHS Digital, to support the adult social care sector to become 'digital ready'
- Supporting nine ICSs to deliver small-scale pilots to help inform plans for supporting the care sector in future years (14). Some pilots include broad-scope support for the development of digital care infrastructure or internet access, which will support the uptake of DSCRs. ICSs whose pilots specifically include DSCR implementation are:
    - Lancashire and South Cumbria Health and Care Partnership ICS, which is accelerating the adoption of DSCRS by supporting 40 care homes to adopt an assured solution
    - South West London ICS, which is implementing DSCRs as well as fall prevention technologies across their care homes
    - Healthier Together - Bristol, North Somerset and South Gloucestershire ICS, which is providing match funding for two care homes to adopt DSCRs
    - Suffolk and North East Essex ICS, which is piloting a package of IT (Information Technology) provision enabling access to a 'digital care infrastructure' for 10 independent care providers, including support with DSCRs
    - Cheshire and Merseyside ICS, which will be focusing on accelerating the introduction of DSCRs across the region and developing a Shared Care Record across the ICS
    - Sussex Health ICS, which is developing a pattern for supporting the migration from paper to DSCRs, delivering a map of available infrastructure to support Care Homes to develop their digital transformation plans and explore user centred design (UCD) data mapping to help digital systems to enable sharing of patient information across all partners.

In May 2023, the government published a framework detailing what good digital working looks like for care providers and LAs with responsibility for adult social care in England (17). This framework highlights the advice and guidance on the Digital Social Care website, which provides organisations with access to trusted information, case studies and guidance resources. One such resource is a link to standards and guidance to follow when implementing DSCRs, which has been published on a Wiki page titled 'The Digital Social Care Records Standards site'. The Wiki includes the aforementioned standards and capabilities roadmap for DSCR solutions that assured DSCR suppliers will need to comply with.

The framework also recommends that care providers actively seek to learn from one another when implementing DSCRs and consult resources such as the *'Adopting Digital Care Records Masterclass Series*' (17). This series was developed during 2021-2022 and brings together sector experts, technology companies and care providers to share their experiences in choosing and using DSCRs (18).

Looking ahead

The government is committed to achieving its ambitions of digitising the health and care sector, and it looks like this is likely to remain the case in the near future. It seems that progress continues to be made on working towards the commitments made in *Data Saves Lives* and *People at the Heart of Care*, with deadlines for some milestones met and others soon approaching. Meanwhile, it appears that funding continues to be set aside to support ICSs to implement DSCRs as part of wider digital initiatives in the sector. So far, these measures have led to DSCR adoption rising from 40 percent to over 50 percent between 2021 and 2023, although it remains to be seen whether the target of 80 percent will be reached by March 2024. At the current rate of uptake, it seems that this goal may be somewhat optimistic. It also remains unclear how successful the integration of DSCRs with Shared Care Records and other digital tools will prove to be, and whether the potential for DSCRs to help connect healthcare and social care, free up staff time, and improve the quality of care for citizens will be fully realised across the sector.

Issues of note for discussions with case study sites to understand how DSCR implementation takes place locally

- *The legislation relating to the implementation of DSCRs is quite complex - a lot of different documents from different organisations saying similar (but not always the same) things. Clarity on funding amounts, dates, and sources/beneficiaries can also be lacking.*
- *It is difficult to find clear information on how ICSs, ICBs and ICPs relate to DSCRs. The specifics of how DSCRs relate to shared care records and electronic patient records, integrated electronic health records, and primary care records are also unclear.*
- *Despite being ‘quality assured’, different companies offer different platforms for delivering DSCRs, which may potentially pose an issue in terms of aggregating data and linking systems together.*

References

1. NHS Digital. (2022, October 20). *Adult Social Care Activity and Finance Report, England, 2021-22*. Retrieved August 18, 2023, from https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2021-22
2. Bottery, S. (2023, March 2). *Social care 360: Access*. The King's Fund. Retrieved August 18, 2023, from https://www.kingsfund.org.uk/publications/social-care-360/access
3. DHSC. (2021). *People at the Heart of Care: Adult Social Care Reform White Paper*. Retrieved August 18, 2023, from

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1061870/people-at-the-heart-of-care-asc-reform-accessible-with-correction-slip.pdf

4. Fujiwara, D. (2021). *A Vision of Social Care: The Economic & Wider Value of Adult Social Care*. All-Party Parliamentary Group on Adult Social Care. Retrieved August 18, 2023, from https://static1.squarespace.com/static/5cab2514d24e55000163e258/t/615486d7c23f5f7af6c6aaa2/1632929499018/A+Vision+of+Social+Care.pdf
5. Blake, M. et al. (2021). *NHSX Adult Social Care: Technology and Digital Skills Review*. Ipsos MORI, Institute of Public Care & Skills for Care. https://www.ipsos.com/sites/default/files/ct/publication/documents/2021-12/NHSX_Technology_and_Digital_Skills_Review_Main_Report_November_2021.pdf
6. Digital Social Care. (n.d.). *Digital Social Care Records: Assured Solution List [Internet]*. Retrieved August 18, 2023, from https://www.digitalsocialcare.co.uk/social-care-technology/digital-social-care-records-dynamic-purchasing-system/
7. DHSC. (2022). *A Plan for Digital Health and Social Care*. Retrieved August 18, 2023, from https://www.gov.uk/government/publications/a-plan-for-digital-health-and-social-care/a-plan-for-digital-health-and-social-care#appendix-a-our-action-plan-for-delivering-a-digital-future
8. DHSC. (2022). *Data Saves Lives: Reshaping Health and Social Care with Data*. Retrieved August 18, 2023, from https://www.gov.uk/government/publications/data-saves-lives-reshaping-health-and-social-care-with-data/data-saves-lives-reshaping-health-and-social-care-with-data
9. DHSC. (2023). *Next Steps to Put People at the Heart of Care: A Plan for Adult Social Care System Reform 2023 to 2024 and 2024 to 2025*. Retrieved August 18, 2023, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1148559/next-steps-to-put-people-at-the-heart-of-care_a-plan-for-adult-social-care-system-reform-2023-to-2024-and-2024-to-2025.pdf

10. NHS England. (n.d.). *Shared Care Records [Internet]*. Retrieved August 18, 2023, from https://www.england.nhs.uk/digitaltechnology/connecteddigitalsystems/shared-care-records/
11. NHS Transformation Directorate. (2023). *Data Saves Lives Implementation Update*. Retrieved August 18, 2023, from https://transform.england.nhs.uk/key-tools-and-info/data-saves-lives/data-saves-lives-implementatiData Saves Lives Implementation Updateon-update/
12. DHSC. (2022). *Joining Up Care for People, Places and Populations: The Government's Proposals for Health and Care Integration*. Retrieved August 18, 2023, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1055687/joining-up-care-for-people-places-and-populations-web-accessible.pdf
13. NHS England. (n.d.). *What are Integrated Care Systems? [Internet]* Retrieved August 18, 2023, from https://www.england.nhs.uk/integratedcare/what-is-integrated-care/
14. NHS Transformation Directorate. (n.d.). *Digitising Social Care Fund [Internet]*. Retrieved August 18, 2023, from https://transform.england.nhs.uk/key-tools-and-info/adult-social-care-digital-transformation/digitising-social-care-fund/
15. Digital Social Care. (2022, July 12). *Digitising Social Care Fund [Internet]*. Retrieved August 18, 2023, from https://www.digitalsocialcare.co.uk/digitising-social-care-fund/
16. DHSC. (2023). *Digitising Social Care Programme: Accounting Officer Assessment*. Retrieved August 18, 2023, from https://www.gov.uk/government/publications/department-of-health-and-social-care-accounting-officer-assessments/digitising-social-care-programme-accounting-officer-assessment
17. DHSC. (2023). *Digital Working in Adult Social Care: What Good Looks Like*. Retrieved August 18, 2023, from https://www.gov.uk/government/publications/digital-working-in-adult-social-care-what-good-looks-like/digital-working-in-adult-social-care-what-good-looks-like-for-local-authorities-and-care-providers

18. Digital Social Care. (n.d.). *Adopting Digital Care Records: Masterclass Series [Internet]*. Digital Social Care. Retrieved August 18, 2023, from https://www.digitalsocialcare.co.uk/social-care-technology/adopting-digital-care-records-masterclass-series/

11.4 Appendix 4 – Amendment History

Amendment No.	**Protocol version no.**	**Date issued**	**Author(s) of changes**	**Details of changes made**
1	V2.0	11/10/23	JM	Narrowed down the focus of the evaluation, both the research questions and methods. These decisions have been made with the public advisory network for this project and with the funder.
2	V2.1	20/10/23	JM	Amended timescales for the project and added further detail to the scientific summary.
3	V2.2	7/2/24	JM	Amended approach for the economic component of the evaluation. Included confirmed study sites.