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Health and Social Care Committee

Evaluation of Government commitments made on the digitisation of the NHS

Fourth Special Report of Session 2022–23

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Health and Social Care Committee

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The current staff of the Committee are Joanna Dodd (Clerk), Sandy Gill (Committee Operations Officer), Libby McEnhill (Senior Committee Specialist), James McQuade (Committee Operations Manager), Stephen Naulls (Clinical Fellow), Anne Peacock (Media and Communications Manager), Yohanna Sallberg (Second Clerk), Emma Stevenson (Committee Specialist), Katherine Woolf (Academic Fellow), and Catherine Wynn (Committee Specialist).

Contacts

All correspondence should be addressed to the Clerk of the Health and Social Care Committee, House of Commons, London SW1A 0AA. The telephone number for general enquiries is 020 7219 6182; the Committee's email address is hsccom@parliament.uk.

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Contents

Report from the Committee's Expert Panel on the digitisation of the NHS

The Committee's Expert Panel

1. In 2020, we established and commissioned a panel of experts (known as the Committee's Expert Panel or "Expert Panel") to evaluate—independently of us—progress the Government have made against their own commitments in different areas of healthcare policy. The framework for the Panel's work was set out in our Special Report: Process for independent evaluation of progress on Government commitments (HC 663), published on 5 August 2020. The Expert Panel has previously published four evaluations on the Government's progress against its policy commitments in the area of:

- Maternity services in England, published on 6 July 2021 (HC 18),
- Mental health services in England, published 9 December 2021 (HC 612),
- Cancer services, published on 30 March 2022 (HC 1025), and
- The health and social care workforce, published 25 July 2022 (HC 112).

2. The Core members of the Expert Panel are Professor Dame Jane Dacre (Chair), Professor Emma Cave, Professor Anita Charlesworth CBE, Sir Robert Francis KC, Sir David Pearson and Professor Stephen Peckham.

3. We asked the Expert Panel to undertake its fifth evaluation into the Government's progress against its policy commitments in the area of the digitisation of the NHS in England. For this evaluation, the core Expert Panel members were joined by digitisation specialists Professor Maureen Baker CBE, Catherine Davies, Noel Gordon, Dr Wajid Hussain, Helen Patterson and Nicola Perrin MBE.

4. We thank the members of our Expert Panel for their work and the important contribution they have made in support of the Committee's scrutiny of the Department of Health and Social Care.

The Expert Panel's evaluation

5. With our agreement, the Expert Panel focussed on the following policy areas:

- The care of patients and people in receipt of social care,
- The health of the population,
- Cost and efficiency of care, and
- Workforce literacy and the digital workforce.

6. The Expert Panel's evaluation is appended to this Report. Although its evaluation was undertaken without input from the Committee, we expect the Department to respond to it within the standard two-month period for responses to Select Committee reports.

The Health and Social Care Committee's Expert Panel:

Evaluation of Government commitments made on the digitisation of the NHS

Introduction

Governments often make well-publicised policy commitments with good intentions to improve services for the public. While such policy commitments can be made frequently, it is often difficult to evaluate or monitor the extent to which these commitments have been, or are on track to be, met. For this reason, formal processes of evaluation and review are essential, not only to hold the Government to account, but to allow those responsible for policy implementation to critically appraise their own progress; identify areas for future focus; and to foster a culture of learning and improvement. Such a process can also promote improvements in the quality of the commitments made.

Improvement and review are iterative processes during which the impact and success of innovations are identified, modified, and reviewed and this discipline is already in good use within the NHS. The concept has also been used successfully in education by OFSTED, and in health and social care, by the Care Quality Commission (CQC). To apply this approach to health policy, the House of Commons Health and Social Care Select Committee established a panel of experts to support its constitutional role in scrutinising the work of the Government. The Panel is chaired by Professor Dame Jane Dacre and is responsible for conducting politically impartial evaluations of Government commitments in different areas of healthcare policy. The Panel's evaluations are independent from the work of the Committee.

The Expert Panel produces a report after each evaluation which is sent to the Committee to review. The Panel's report is independent but published alongside the Committee's own report. The final report includes a rating of the progress the Government have made against achieving their own commitments. This is based on the "Anchor Statements" (see Annex A) set out by the Committee. The intention is to identify instances of successful implementation of Government pledges in health and social care as well as areas where improvement is necessary, and to provide explanation and further context.

The overall aim is to use this evidence-based scrutiny to feed back to those making promises so that they can assess whether their commitments are on track to be met and to ensure support for resourcing and implementation was, or will be, provided to match the Government's aspirations. It is hoped that this process will promote learning about what makes an effective commitment, identify how commitments are most usefully monitored, and ultimately improve health and care.[1]

Where appropriate, the Panel will revisit and review policy commitments to encourage sustained progress. The Expert Panel's remit is to assess progress against the Government's key commitments for the health and care system rather than to make policy recommendations. This is the fifth report of the Expert Panel and evaluates the Government commitments made in the area of digitisation of the NHS in England.

1 During a roundtable with stakeholders during a previous evaluation, we heard that the term "service user" was not a preferred term in the social care sector, and that we should instead refer to those receiving social care as "people in receipt of social care". We have therefore chosen to do so in the text, but quotes and statistics which use the term "service user" will appear in the text where they have done so in the original sources.

Members of the Expert Panel

The Expert Panel is chaired by Professor Dame Jane Dacre DBE and is comprised of core members and subject specialists. Core panel members were recruited for their generic expertise in policy, with a broad understanding of qualitative and quantitative research methods, and the evaluation of evidence. Subject specialists were recruited to bring direct experience and expertise to the area under evaluation by the Expert Panel. All Expert Panel members have been officially appointed by the House of Commons Health and Social Care Select Committee.

Core members of the Expert Panel are:

- Professor Emma Cave,
- Professor Anita Charlesworth CBE,
- Sir Robert Francis KC,
- Sir David Pearson, and
- Professor Stephen Peckham.

Health and social care workforce specialist members of the Expert Panel are:

- Professor Maureen Baker CBE, Chair, Professional Record Standards Body,
- Catherine Davies, Director, Digital Healthcare Council,
- Noel Gordon, Former Chair NHS Digital, Chair Healthcare UK and Board Member, NHS England,
- Dr Wajid Hussain, Chief Clinical Information Officer, Royal Brompton and Harefield Hospitals,
- Helen Patterson, Royal College of Physicians Patient and Carer Network, and
- Nicola Perrin MBE, Chief Executive Officer, Association of Medical Research Charities.

Further information on the Expert Panel is set out in the Health and Social Care Committee Special Report: Process for independent evaluation of progress on Government commitments (5 August 2020).[2] The latest information relating to the Expert Panel can be found here: The Health and Social Care Committee's Expert Panel (shorthandstories.com).

Members of the Expert Panel secretariat

- Joanna Dodd
- Sandy Gill
- James McQuade

2 The Health and Social Care Select Committee, Process for independent evaluation of progress on Government commitments HC 663 (August 2020)

- Yohanna Sallberg
- Professor Katherine Woolf

Acknowledgements

We would like to thank the Department of Health and Social Care, NHS England & Improvement and NHS Digital for their engagement with our evaluation. We would like to extend our thanks to those who have supported our work, and especially those who took part in our roundtable discussions. The testimonies they provided have been a great asset in our evaluation process, and we thank them for their involvement and their candour. We would also like to thank the various organisations, interest groups and individuals who provided written evidence to our evaluation, and for the quality and detail of their submissions. These submissions made a significant contribution to the Panel's evaluation of the digitisation of the NHS.

Executive Summary

The Health and Social Care Committee commissioned a review of the evidence for the effective implementation and appropriateness of the Government's policy commitments relating to the digitisation of the NHS in England. This report has been produced independently of the Committee's inquiry 'Digital transformation of the NHS'. The findings and ratings, however, may contribute to the Committee's inquiry on this topic.

The Expert Panel consists of core members with recognised expertise in quantitative and qualitative research methods, and policy evaluation. This core group was complemented by experts with research expertise in, and practical experience of, digitisation of the NHS and social care.

The title of this evaluation refers to the NHS, however we have considered social care within our evaluations of all commitments. It is clear that health and social care are intrinsically linked, and that the digitisation of health and care is essential to improve the outcomes, efficiency and effectiveness of both services as well as achieving the ambition of integrating health and care.

In 2022, the Department of Health and Social Care (the Department) published a policy paper titled 'A plan for digital health and social care'. The policy paper emphasised that digitisation across both health and social care is necessary if it is to deliver the promise of "[…] vastly improved and more integrated health and social care services". It is also the case that digitisation occurs in the context of the aspirations and requirements of the Health and Care Act 2022 and the establishment of Integrated Care Systems as a central plank of Government policy.[3] Therefore, where we have considered the NHS, we have also included social care.

Evaluations and judgements in this report are summarised by ratings which assess the Government's progress against specific commitments made regarding the digitisation of the NHS.

The ratings in this report are in the style used by national bodies such as the Care Quality Commission (CQC), however they have been determined by us and do not reflect the opinion of the CQC or any other external agency. The commitments under review are interconnected, allowing an overall rating to be made which forms a combined assessment against all the commitments we evaluated. Separate ratings have also been given to each commitment and its main components. All ratings are informed by a review process using a combination of established research methods, expert consensus, and consultation with communities.

Our approach to this evaluation was to review quantitative and qualitative data provided by the Department and relevant non-departmental public bodies invited to contribute to the evaluation, alongside relevant research evidence to establish causative links, as well as evidence from other sources via a call for written submissions. We also heard from health and social care professionals, patients, researchers, people in receipt of social care and advocates. Sources are referenced in footnotes throughout the report.

3 Health and Care Act 2022

Selected Commitments

The Department provided the Expert Panel with its main recent policy commitments in the area of the digitisation of the NHS in England.[4] Using this information and wider policy documentation, we identified nine commitments across four broad policy areas. These included important and measurable ambitions for the digitisation of the NHS. We consider these commitments to provide reasonable generalisable evidence of progress against policy aspirations in the broader area of the digitisation of the NHS. We evaluated the Government's progress against these commitments.

The commitments we have chosen to examine are:

Policy Area	Government Commitment
The care of patients and people in receipt of social care	Our aim is that, by 2024, 75% of adults will have registered for the NHS App with 68% (over 30 million people) having done so by March 2023. By increasing digital connection and providing more personalised care, we can support people to monitor and better manage their long-term health conditions in their own homes, enabling them to live well and independently for longer. Roll out integrated health and care records to all people, providing a functionally single health and care record that people, their carers and care teams can all safely access, enabled by a combination of nationally held summary data and links to locally held records, including shared care records.
The health of the population	Through the Data for Research and Development programme we will invest up to £200 million to transform access to and linkage of NHS health and genomic data sets for data-driven innovation and inclusive clinical trials, whose results will be critical to ensuring public confidence in data access for research and innovation purposes. NHS Digital will develop and implement a mechanism to de-identify data on collection from GP practices by September 2019.
Cost and efficiency of care	We will streamline contracting methods both to leverage NHS buying power and simplify the process of selling technology to NHS buyers (ongoing). We will consolidate routes to market and strengthen our commercial levers for adopting standards through a new target operating model for procurement. This will include embedding standards as part of procurement frameworks, supporting NHS procurement teams to prioritise adherence to standards. Consolidation of the number of frameworks will encourage market entry and more choice in some markets, incentivising vendors to follow NHS standards.
Workforce literacy and the digital workforce	We will co-create a national digital workforce strategy with the health and care system setting out a framework for bridging the skills gap and making the NHS an attractive place to work. We will enable recruitment retention and growth of the digital, data, technology workforce to meet challenging projected health and care demand by 2030 through graduates, apprentices and experienced hires creating posts for an additional 10,500 full-time staff.

4 Letter from the Secretary of State for Health and Social Care Steve Barclay to the Chair of the Health and Social Care Committee and Jane Dacre, 19 August 2022

For each of the nine commitments under review, the Health and Social Care Committee approved the main questions to guide our evaluation. We developed a set of sub-questions relating to specific areas of the commitment. These main questions and sub-questions were incorporated into a final framework referred to as the Expert Panel's planning grid.

The main questions set out in the planning grid are:

- Was the commitment met overall? Or is the commitment on track to be met?
- Was the commitment effectively funded (or resourced)?
- Did the commitment achieve a positive impact for people in receipt of care?
- Was it an appropriate commitment?[5]

Our approach was not a formal technical evaluation of the impact of different interventions on the policy aspirations and should not be viewed as a substitute for Government commissioned evaluations via the National Institute for Health Research (NIHR). We shared the planning grid with the Department, inviting them to respond to all main questions and sub-questions in its formal written response. We identified key stakeholders and invited them to submit their own written response to the planning grid. We invited health and social care professionals, patients, researchers, people in receipt of social care and advocates to roundtable events, using discussion prompts informed by the planning grid.

We used the Department's response, which we received on 11 November 2022, key questions in the planning grid, as well as our own thematic analysis of 43 written submissions, publicly available data, and transcripts from roundtable events with 46 participants as the basis for this evaluation.

Responses were analysed using a framework method for qualitative analysis in health policy research.[6] The integration process of all quantitative and qualitative evidence was based on Pawson's 'realist synthesis' framework of evaluating policy implementation in healthcare settings.[7]

Overall rating across all commitments

Inadequate

The overall rating across all commitments is inadequate. The ratings for the nine commitments across the four policy areas and main questions were used to inform our overall rating for the area of the digitisation of the NHS. The ratings for each of the nine commitments in the four policy areas are summarised in the following tables.

5 First Special Report of Session 2019–21: Process for independent evaluation of progress on Government commitments (July 2020), p. 3

6 Gale, N.K., Heath, G., Cameron, E., Rashid, S., and Redwood, S. "Using the framework method for the analysis of qualitative data in multi-disciplinary health research", BMC Medical Research Methodology, vol 13 (2013) pp. 1–8

7 Pawson R. 'Evidence-based Policy: The Promise of `Realist Synthesis''. Evaluation, vol 8(3), (2002) pp. 340–358; Pawson, R., Greenhalgh, T., Harvey, G., and Walshe, K. "Realist review—a new method of systematic review designed for complex policy interventions". Journal of Health Services Research and Policy, vol 10 (2005) pp. 21–34

Care of patients and people in receipt of social care

Commitment	A. Commitment Met	B. Funding and Resource	C. Impact	D. Appropriateness	Overall
Our aim is that, by 2024, 75% of adults will have registered for the NHS App with 68% (over 30 million people) having done so by March 2023.	Good	Requires improvement	Requires improvement	Requires improvement	**Requires improvement**
By increasing digital connection and providing more personalised care, we can support people to monitor and better manage their long-term health conditions in their own homes, enabling them to live well and independently for longer	Requires improvement	Requires improvement	Requires improvement	Requires improvement	**Requires improvement**
Roll out integrated health and care records to all people, providing a functionally single health and care record that people, their carers and care teams can all safely access, enabled by a combination of nationally held summary data and links to locally held records, including shared care records	Inadequate	Inadequate	Inadequate	Good	**Inadequate**

Health of the population

Commitment	A. Commitment Met	B. Funding and Resource	C. Impact	D. Appropriateness	Overall
Through the Data for Research and Development programme we will invest up to £200 million to transform access to and linkage of NHS health and genomic data sets for data-driven innovation and inclusive clinical trials, whose results will be critical to ensuring public confidence in data access for research and innovation purposes	Requires Improvement	Good	Requires Improvement	Good	**Requires Improvement**
NHS Digital will develop and implement a mechanism to de-identify data on collection from GP practices by September 2019	Inadequate	Inadequate	Inadequate	Good	**Inadequate**

Cost and efficiency of care

Commitment	A. Commitment Met	B. Funding and Resource	C. Impact	D. Appropriateness	Overall
We will streamline contracting methods both to leverage NHS buying power and simplify the process of selling technology to NHS buyers (ongoing).	Requires Improvement	Requires Improvement	Requires Improvement	Requires Improvement	Requires Improvement
We will consolidate routes to market and strengthen our commercial levers for adopting standards through a new target operating model for procurement. This will include embedding standards as part of procurement frameworks, supporting NHS procurement teams to prioritise adherence to standards. Consolidation of the number of frameworks will encourage market entry and more choice in some markets, incentivising vendors to follow NHS standards	Requires improvement	Requires Improvement	Requires improvement	Requires Improvement	Requires improvement

Workforce literacy and the digital workforce

Commitment	A. Commitment Met	B. Funding and Resource	C. Impact	D. Appropriateness	Overall
We will co-create a national digital workforce strategy with the health and care system setting out a framework for bridging the skills gap and making the NHS an attractive place to work	Inadequate	Requires improvement	Inadequate	Good	**Inadequate**
We will enable recruitment retention and growth of the digital, data, technology workforce to meet challenging projected health and care demand by 2030 through graduates, apprentices and experienced hires creating posts for an additional 10,500 full-time staff	Inadequate	Inadequate	Inadequate	Inadequate	**Inadequate**

The overall rating for the nine commitments across the four policy areas evaluated is: Inadequate

This rating relates to the Government's progress overall against the nine commitments across the four policy areas based on guidance outlined in the anchor statements (Annex A) set out by the Health and Social Care Committee.

We chose four policy areas to evaluate:

(1) the care of patients and people in receipt of social care,

(2) the health of the population,

(3) the cost and efficiency of care and

(4) the digital literacy of the workforce and the digital workforce.

These policy areas were chosen based on the framework on optimising health and care system performance, which sets out the Quadruple Aim of better care, better health, better value for money, and better workforce wellbeing.[8] This is an adaption of the widely known Triple Aim of better care, health, and value for money[9] while additionally recognising the critical role of the workforce in health and care transformation.[10]

Although we recognise the significant progress made in the area of digitisation in the health and care system, we conclude that some key commitments have not been met or are not on track to be met. Much of the evidence we heard indicated that progress towards national standards and frameworks within the NHS is happening but is too slow overall. Providers have not received the resource and support they need from Government. In social care, lack of direct support or funding was a frequently mentioned concern. While several commitments contained appropriate targets, these were not always realistic. We commend the efforts of individual staff and providers but regret that they have not been able to achieve the digitisation that the system needs. Overall the evidence led us to rate the Government's progress in this area as 'inadequate'.

Progress against four of the nine commitments were rated inadequate, and each is vital to the Government's aim to digitise the health and care system. These were the commitments to:

- deliver an integrated health and care record for all patients (within the policy area of care of patients and people in receipt of social care),
- ensuring public and professional support for the use of general practice (GP) data for secondary uses (within the policy area of health of the population), and

8 Rishi Sikka, Julianne M Morath, Lucian Leape "The Quadruple Aim: care, health, cost and meaning in work" BMJ Quality & Safety 2015; Vol 24:608–610.

9 Donald M Berwick, Thomas W Nolan, John Whittington. "The triple aim: care, health, and cost" Health Affairs (Millwood) 2008, Vol 27(3) 759–769.

10 K. V. Stein, V. E. Amelung, R. Miller and N. Goodwin. The Fourth Dimension of the Quadruple Aim: Empowering the Workforce to Become Partners in Health and Care. International Journal of Integrated Care, 2021 Vol 21 (2): p34

- two commitments in the policy area of workforce digital literacy and the digital workforce, which together aim to ensure there is a sufficient number of staff with the requisite knowledge and skills to implement digitisation across the health and social care system.

The remaining five commitments all received overall ratings of 'requires improvement'. These were:

- the roll-out of the NHS App and the use of digital home monitoring (both within the area of the care of patients and people in receipt of social care),
- the use of patient data for research and planning (within the area of the health of the population), and
- both commitments relating to the purchasing of digital technologies (within the area of cost and efficiency of care).

Throughout this evaluation we found common issues, many of them inter-related, which hampered the delivery of commitments across all four broad policy areas. Issues that came out particularly strongly were:

- poor progress towards national interoperability which prevents digital systems transferring information and connecting with each other,
- the poor digital maturity (capabilities) of some providers, particularly but not exclusively, within social care,
- insufficient planning, particularly around the accessibility of digital products, in order to mitigate against exclusion of some groups of the population,
- Whilst local authority social care authorities have had a requirement to have electronic social care since the end of 2004, recent work to enable electronic records amongst social care providers is still work in progress. Providers reported an apparent lack of consideration of the particular challenges faced by some social care providers and staff due to a lack of previous investment. The very large number of providers (nearly 18,000) adds to the complexity of the task,
- A shortage of staff, both in numbers but mainly with the relevant technical skills, to deliver digital services and to benefit patients and people in receipt of social care.

We describe each in more detail below.

The evidence we received indicated that poor interoperability prevented the effective flow of information within and between hospital providers, general practice providers, community providers, and social care providers—particularly when digital maturity was poor.[11] Poor interoperability resulted in some users of the NHS App not being able to use its full functionality. This had a knock-on effect on patients and people in receipt of social

11 According to NHS England digital maturity comprises: 1) Digital Readiness: the extent to which providers are able to plan and deploy digital services, 2) Capabilities: the extent to which providers are using digital technology to support the delivery of care; 3) Infrastructure: the extent to which providers have the underlying infrastructure in place to support these capabilities. NHS England, 'Digital Maturity Assessment', accessed 160123.

care in relation to sending information digitally between, and from their home monitoring devices to their health and care providers. Poor interoperability was a key reason why we rated the Government's delivery of an integrated health and care record for all people as 'inadequate', as an integrated health and care record relies on gathering and integrating patient data from different systems into a single record. Poor system interoperability also impedes the delivery of the linked datasets needed for the Data for Research and Development programme. Achieving interoperability was identified as a key enabler of the digitisation of the NHS because it allows patients and clinicians to access information and to use digital tools across health and care settings and enables research organisations to optimise the speed and effectiveness of clinical trials.

There is significant variation in the digital maturity of health and social care providers, both between and within geographic areas, and this has hindered the successful delivery of commitments in several of the policy areas we examined.

While efforts to ensure appropriate balance between central and local responsibility for driving digitisation are welcome, we consider that the current approach of delegating responsibility for digitisation to Integrated Care Systems (ICS) without clear expectations for delivery, risks maintaining or even increasing variability in digital maturity. ICSs are required to bid for some of the national funding for digitisation, whilst some of the funding has to be found within the ICS's existing budget. The need to be successful in a bid for extra money, or to source it from the existing budget, risks ICSs and their constituent organisations making choices between the pace and scope of local digital transformation versus maintaining essential services in order to cope with increased demand and financial pressures.

Across several of the policy areas we evaluated we found a lack of effective plans to mitigate against the digital exclusion experienced by some groups of the population, which negatively affects their health and care. The groups experiencing health inequalities are often those most at risk of digital exclusion. There is a risk that the health of digitally excluded groups will decline further as health and social care provision becomes increasingly reliant upon having access to technology and the internet, having the skills to use digital technology in a health context, and having confidence that digital health technologies and systems are trustworthy and protect privacy.[12]

In this evaluation we found that social care services and settings are frequently overlooked in the Government's commitments to digitise the health and care systems. For example, none of the four commitments that we evaluated within the policy areas of cost efficiency and workforce referred specifically to social care. Furthermore, national standards relating to the procurement and use of digital technology within the NHS often do not apply to social care, resulting in siloed provision of digital health and social care. We found that social care provider systems are particularly likely to have poor digital maturity and are often poorly integrated with health systems. This caused problems when patients were moved between health and social care settings, and within the social care sector for staff who moved between providers as they had to learn a new system every time. This has been a recurring theme in our previous reports.

In all of our evaluations to date, and particularly our most recent evaluation on the health and care workforce, we have seen just how crucial the workforce is to the delivery

12 Public Health Wales NHS Trust, Digital technology and health inequalities: a scoping review, 2020

of health and care. We have also concluded that a lack of effective workforce planning resulting in workforce shortages, and poor training, progression and staff development, can compromise patient safety and quality of care.[13] In the process of this evaluation, we similarly found that staff shortages coupled with increased demand means staff do not always have the capacity to undertake training on how to use digital systems and technology effectively. As we concluded in our evaluation of Cancer services, digital technologies are being procured but there are not enough staff with the skills to use them.[14] We also saw evidence of the considerable challenges faced by the NHS in recruiting and retaining specialist digital data and technology (DDaT) staff within a highly competitive market. While programmes introduced to improve the digital capacity and capability of the workforce are a good start, the Government's digital workforce strategy has been delayed, and it is unlikely that these programmes will deliver the capability and capacity at a pace required to match the delivery of digital commitments or to leverage them for the benefit of patients and clinicians. We therefore remain concerned that the Government's welcome aspirations to digitise the NHS will not succeed unless they also produce an effective workforce strategy to train, recruit and retain sufficient digitally competent staff.

During our evaluation process we have been aware of the impending restructure of NHS England (NHSE). At the time this report is published NHS Digital will have merged with NHSE (Transformation Directorate), which follows the merger of Health Education England and NHSX into NHSE in 2022. However, we have not been able to determine whether, and if so, how this merger consolidation and subsequent redundancy programme have materially affected progress towards the digitisation of the NHS in England or the ratings we have applied to the nine Government commitments.

We want to acknowledge the impact of the Covid-19 pandemic which presented exceptional challenges for both the health and social care sectors. The pandemic also provided the motivation for the adoption of new, often digital, ways of working. It accelerated the delivery of new digital health tools such as the NHS Covid app and reallocated resources from other digital programmes. We are also aware that the four policy areas we have evaluated were experiencing challenges prior to the pandemic, and these pressures have continued to grow. We want to express our gratitude for the huge efforts by a range of health and social care staff to rapidly create and implement new digital health and care solutions, as well as our recognition and appreciation of the contribution from all staff within health and social care who have worked and continue to work tirelessly under extremely difficult circumstances. The rationale to support the rating and our findings are summarised below.

13 The Health and Social Care Select Committee, The Health and Social Care Committee's Expert Panel: Evaluation of the Government's progress against its policy commitments in the area of the health and social care workforce HC 112 (July 2022)

14 The Health and Social Care Select Committee, The Health and Social Care Committee's Expert Panel: Evaluation of the Government's progress against its policy commitments in the area of cancer services HC 1025 (March 2022)

The care of patients and people in receipt of care

Commitment 1: Our aim is that, by 2024, 75% of adults will have registered for the NHS App with 68% (over 30 million people) having done so by March 2023. (Requires improvement)

- There has been a significant increase in the number of people registering for the NHS App since the NHS App was launched. This is largely due to the COVID Pass being made available on the NHS App, which was, but generally is no longer, required to travel abroad and to gain entry to certain events. NHS Digital told us that as of September 2022 there were 30.4m adults registered to use the NHS App, which met the first part of the target, and the Department and NHS Digital stated that they expect the second part of the target to be met by March 2024.

- There appears to be no coherent policy and no specific funding to support the continued roll-out of the NHS App. The Department expects this to be driven primarily by general practice but has not allocated specific resource for this and does not deem additional marketing spend necessary. In 2022, NHS funding for digital services including the NHS App was reduced, which suggests that the funding model is not sufficiently agile to manage the increase in NHS App registrations aimed for in this commitment and associated usage without compromising other areas, including staffing.

- Some of the evidence we received indicated that the NHS App is proving beneficial to some patients and could be beneficial to many more. However, the use of multiple apps and digital systems aimed at patients, with similar functionality, are confusing for patients who end up having several options to access similar services. The NHS App is not always well integrated with other systems used by GP practices, hospitals, and in community settings (e.g. pharmacy) which can prevent use of the NHS App to manage hospital appointments and repeat prescriptions for example.

- Digital exclusion of some groups of the population was a recognised concern among the Government and many stakeholders that we heard from. Worryingly, we found little evidence of progress being made towards achieving the aims expected to be set out in the Government's digital inclusion plan due to be published in May 2023. We expect this plan to give an update on progress to date in how it has tackled exclusion. We conclude that there has not been enough funding allocated to ensure that the health of groups experiencing digital exclusion is not exacerbated as more health and care services are delivered via the NHS App without viable physical alternatives and without staff capacity to help patients use the NHS App.

- The commitment is focused on NHS App registrations which is an important first step but does not necessarily lead to use or improved outcomes for patients and people in receipt of social care without significant work to ensure the health and social care system are better integrated.

Commitment 2: By increasing digital connection and providing more personalised care, we can support people to monitor and better manage their long-term health conditions in their own homes, enabling them to live well and independently for longer. (Requires improvement)

- Digital tools have significant potential to reduce pressure on the NHS and social care, and to deliver better care and improve health. Several stakeholders we heard from were positive about the impact of this commitment for some groups of the population and some communities.

- We heard about a large number of individual projects using digital remote monitoring, several of which reported positive outcomes in specific groups of patients. For example the Department told us that home blood pressure monitoring has been rolled out via 687 GP practices volunteering as 'trailblazers', with early data from Dorset showing reductions in patients' blood pressure. They also told us that 179,000 people living with diabetes have accessed home urine testing for kidney health, supported by a product that uses artificial intelligence. Others we heard from reported less positive impacts. The successful scaling of digital home monitoring technologies has not yet been achieved.

- Progress on this commitment was boosted by funding allocated for digital initiatives during the Covid-19 pandemic. NHSE has now delegated responsibility and funding to carry out much of the work for this commitment to individual ICSs. ICSs have variable digital maturity and experience differing local budget pressures. This poses a serious risk to the consistent and equitable roll-out of successful initiatives as funding allocated to digital initiatives may differ significantly between ICSs.

- The commitment has significant potential to benefit patients and people in receipt of social care, and there is some evidence of benefits. However, without more data and information it is not possible to establish whether benefits have been consistently realised.

- The commitment overlooks the need to ensure that the basic elements are in place to enable digital tools to be consistently rolled out to improve health and care. As worded we consider the commitment to be vague and lacking specific deadlines.

- We note the Department and NHSE's plan for recovering urgent and emergency care published 30 January 2023. The plan includes commitments to increasing the roll-out and evaluation of virtual wards. These are specifically aimed at coping with the greater than anticipated demand on urgent and emergency care.

Commitment 3: Roll out integrated health and care records to all people, providing a functionally single health and care record that people, their carers and care teams can all safely access, enabled by a combination of nationally held summary data and links to locally held records, including shared care records (2024). (Inadequate)

- There was widespread support among the stakeholders we heard from for having a single health and care record that is accessible to patients, their carers and

care teams, and which allows information to be shared effectively across health and social care settings as patients move along care pathways and between organisations and areas.

- There was evidence that the potential benefits of this commitment were not being consistently realised for patients and people in receipt of social care. Several stakeholders reported disparities in coverage across geographic areas as well as within community health and social care providers. These disparities were linked to uneven digital maturity across ICSs and between the constituent organisations within ICSs, as well as poor interoperability between the many digital systems holding patient information across NHS and social care.
- Current funding is not sufficient given the scale of the commitment, which includes staffing provision as well as technical aspects. We are concerned that funding is not evenly spread across ICSs, resulting in ICSs having to bid for funds which means that some may not receive what they need to make the same progress on digitisation, as others.

The health of the population

Commitment 1: Through the Data for Research and Development programme we will invest up to £200 million to transform access to and linkage of NHS health and genomic data sets for data-driven innovation and inclusive clinical trials, whose results will be critical to ensuring public confidence in data access for research and innovation purposes (Requires improvement)

- We welcome the progress made on the Data for Research and Development programme since its launch in April 2022. Investment has been prioritised in relation to the launch of the NHS Digital Secure Data Environment (SDE) strategy which will allow patient health data to be securely stored and used in strictly controlled ways. NHS DigiTrials, which supports clinical trials research, has been expanded. Further progress has however been delayed due to financial and operational factors.

- If this commitment is to deliver on its potential to allow research that will ultimately benefit patients and people in receipt of care, there is a need to ensure that providers and the public, particularly those from communities that are under-represented in research, are confident about allowing access to health and care data and the use of such data in clinical trials and research.

- The evidence we received indicates that more needs to be done to achieve public and workforce confidence in secondary uses, particularly given that the overall programme aims were not widely understood among the stakeholders we heard from. There is also a need to ensure sufficient interoperability between the systems providing data to this programme. The success of this programme depends on the availability of high-quality data from other digital transformation initiatives. While these remain at risk of delay, this will have an inevitable impact on the Data for Research and Development programme.

Commitment 2: NHS Digital will develop and implement a mechanism to de-identify data on collection from GP practices by September 2019 (Inadequate)

- Despite the considerable potential benefits of using data for research and planning, there is still a long way to go before patients and people in receipt of social care can benefit from this commitment. Moreover, the events that led to the pause of General Practice Data for Planning and Research (GPDPR) in 2021 resulted in significant damage to public confidence and an increase in the number of patients opting out of the programme. There is a risk this will have further impact on this and other digitisation programmes.

- There appears to be no clear published plan, communications or consultation strategy, or timeframe for how the Government is going to address public and provider concerns, particularly around the opt-out of data sharing. Many stakeholders, including researchers and clinicians, were unclear about who will be permitted to access de-identified data, under which conditions and security

protocols, and for which purposes.

- The Government has acknowledged previous mistakes around budget transparency and cost effectiveness and stated that budget constraints were one reason for the delay of the GPDPR programme. However, we found little evidence that lessons have been learned. We found no information on the amount spent on this commitment or whether there is a budget agreed for the 2022/23 or 2023/24 financial years.

Cost and efficiency of care

Commitment 1: We will streamline contracting methods both to leverage NHS buying power and simplify the process of selling technology to NHS buyers. (Requires improvement)

- Work to simplify the process of buying and selling technology to the NHS is ongoing, although it is unclear how effective this has been in improving market entry and giving more choice. We conclude that the benefits from streamlining contracting methods are not being realised across the board.
- Many digital companies still find the NHS commercial landscape overly complex and slow. Some smaller providers have difficulties buying technology because they have insufficient expertise in procurement. We are also concerned that the complex way in which funding is allocated leads to challenges in obtaining it. Work to streamline contracting methods is important, however further work is needed to address these additional challenges.
- Once again social care has been overlooked in this policy area despite its vital importance within the overall health and care system.

Commitment 2: We will consolidate routes to market and strengthen our commercial levers for adopting standards through a new target operating model for procurement. This will include embedding standards as part of procurement frameworks, supporting NHS procurement teams to prioritise adherence to standards. Consolidation of the number of frameworks will encourage market entry and more choice in some markets, incentivising vendors to follow NHS standards (started April 2022). (Requires Improvement)

- We acknowledge the work that has been done to improve national framework agreements and standards, alongside improvements to procurement processes generally. We remain concerned, however, about how it translates into improvements on the ground for buyers and innovative companies. There remains no clear systematic method or mechanism for enabling buyers and sellers to operate at scale and we have only seen a few examples of this being done successfully. This is a missed opportunity to take advantage of innovation, and to provide value for money for the taxpayer.
- Stakeholders have expressed concerns that greater alignment on standards and a reduction in the number of frameworks have not yet had the intended consequence of accelerating the route to market. More needs to be done to encourage market entry, increase choice and incentivise vendors to follow NHS standards.
- As with the previous commitment in this area, the omission of social care from this commitment is a concern.

Workforce digital literacy and the digital workforce

Commitment 1: We will co-create a national digital workforce strategy with the health and care system setting out a framework for bridging the skills gap and making the NHS an attractive place to work (March 2023) (Inadequate)

- Addressing workforce issues is vital to achieve digitisation of the NHS. The introduction of senior digital roles such as local Chief Clinical Information Officers (CCIOs) and Chief Nursing Information Officers (CNIOs), as well as the creation of the NHS Digital Academy, have contributed to digitally upskilling the health workforce. However, the introduction of the digital workforce strategy will be vital for further development across health and social care and the introduction of the strategy has been delayed.
- There are encouraging initiatives to bridge skills gaps. However, we found that training has not been rolled out comprehensively across the health and care system. This means that the impact of current initiatives on patients and people in receipt of care is uneven across the health and care sector.
- Despite reference being made to the health and care system in the commitment, we are concerned about the very limited consideration and relatively low levels of training given to social care staff, and the lack of analysis and planning that would be needed to achieve extensive change within the sector.
- Training provision is not sufficient if not matched by investment that enables staff to undertake and benefit from it. This echoes what we have heard in our previous evaluations in relation to workforce training. We are not convinced funding is sufficient to ensure the wider health and social care workforce have adequate digital skills.

Commitment 2: We will enable recruitment retention and growth of the digital, data, technology workforce to meet challenging projected health and care demand by 2030 through graduates, apprentices and experienced hires creating posts for an additional 10,500 full-time staff (March 2025) (Inadequate)

- The drives to grow the digital data and technology (DDaT) workforce through graduate and apprentice schemes, and to retain existing DDaT staff, are encouraging. However, significant staffing gaps remain and retaining existing staff is difficult, partly due to the competitiveness of the job market.
- Staffing gaps results in an over-reliance on commercial consultancy, which is costly and results in institutional knowledge being lost.
- Although the commitment includes the care sector, the Government is not able to provide analysis of how many DDaT staff are working within social care,

which makes planning for workforce needs challenging. Projections of levels of DDaT staff from Health Education England suggest that current efforts will not meet demands.

- We are concerned that £1.1 million allocated to these commitments is insufficient to achieve both commitments we have evaluated within the area of the health and care workforce.

A full list of the written evidence we received is included at the end of the report (see Annex B).

Evidence from the Department

- Additional written information received from the Department

Evidence from stakeholders

- 43 written submissions.

Roundtable events

- Roundtable events with 46 participants with practical experience of digitisation of the NHS from the perspective of health and social care, patients or people in receipt of social care and advocates for patients and people in receipt of social care.

This report provides an analysis of all information provided. The analysis is structured around the four overall policy areas which covered nine individual commitments, and the main questions (A-D) within each commitment.

1 The care of patients and people in receipt of social care

Commitment	A. Commitment Met	B. Funding and Resource	C. Impact	D. Appropriateness	Overall
Our aim is that, by 2024, 75% of adults will have registered for the NHS App with 68% (over 30 million people) having done so by March 2023.	Good	Requires improvement	Requires improvement	Requires improvement	**Requires improvement**
By increasing digital connection and providing more personalised care, we can support people to monitor and better manage their long-term health conditions in their own homes, enabling them to live well and independently for longer	Requires improvement	Requires improvement	Requires improvement	Requires improvement	**Requires improvement**
Roll out integrated health and care records to all people, providing a functionally single health and care record that people, their carers and care teams can all safely access, enabled by a combination of nationally held summary data and links to locally held records, including shared care records	Inadequate	Inadequate	Inadequate	Good	**Inadequate**

In this section we provide an assessment of Government commitments in relation to the care of patients and service-users. Three commitments were selected for evaluation:

"Our aim is that, by 2024, 75% of adults will have registered for the NHS App with 68% (over 30 million people) having done so by March 2023."

"By increasing digital connection and providing more personalised care, we can support people to monitor and better manage their long-term health conditions in their own homes, enabling them to live well and independently for longer"

"Roll out integrated health and care records to all people, providing a functionally single health and care record that people, their carers and care teams can all safely access, enabled by a combination of nationally held summary data and links to locally held records, including shared care records. (2024)"

These commitments reflect the ambitions within the NHS Long Term plan published in 2019 to use digital technology to enable people to seek health information and support online, to use digital tools and technology to manage their own health and wellbeing, and to improve systems so that information can be shared effectively to support the delivery of care.[15]

According to both the NHS Long Term Plan[16] and the Department's policy paper 'A plan for digital health and social care'[17] the NHS App will work as the digital "front door" to the NHS, used by everyone in England to access their health records and manage their health at home where possible.[18] We have therefore chosen to evaluate commitments relating to the roll-out of the NHS App, increasing people's ability to monitor and manage their own health at home via digital technology, and to ensure all patients have a single electronic record which they and their health and care teams can access for up-to-date accurate information.

The Covid-19 pandemic put huge pressure on health and care systems but, according to Professor Aziz Sheikh and colleagues, it also sped up the digital transformation of health and care services in some respects.[19] For example, urgent efforts to limit disease transmission resulted in what some academics have termed a "tech-celeration"[20] in the delivery of care remotely, including video and telephone consultations and the use of digital health monitoring devices at home.

A risk connected to giving digital technology a bigger role in improving care is digital exclusion. A House of Commons library research briefing defines digital exclusion as someone:

- not being able to access infrastructure that provides access to the internet, for example living in a location without sufficient broadband or mobile coverage or being unable to afford a connection package,
- not having access to a device such as a smartphone, laptop or tablet which can connect to the internet,

15 NHS England "NHS Long Term Plan » Digital transformation" accessed 101023
16 NHS, NHS Long Term Plan, January 2019
17 DHSC, A plan for digital health and social care, June 2022
18 Talha Burki, "A milestone on the journey to a digital NHS", The Lancet Digital Health, Vol 1 (2019) E114–115
19 Aziz Sheik et al 'Health information technology and digital innovation for national learning health and care systems' The Lancet Digital Health, Vol 3, Issue 3 (2021) e383-e396
20 Martin Cowie & Carolyn Lam. Remote monitoring and digital health tools in CVD management. Nature Reviews Cardiology. April 2021.

- not having the skills to use a device and/or navigate the online environment safely and effectively, which according to the Lloyds Consumer Digital Index 2022 comprised approximately 5.3 million people in the UK in 2022,[21] or
- choosing not to use the internet and/or learn the necessary skills required.[22]

A report published by Ofcom in April 2021 found that the Covid-19 pandemic resulted in the proportion of homes without internet access falling from 11% in March 2020, as the UK entered lockdown, to 6% of homes (around one and a half million) in March 2021. According to an Ofcom report from December 2022, access to a super-fast broadband connection is now generally the case across the UK, with around 97% or 28.7 million homes having access.[23] However, 40,000 residential premises in England, typically in rural areas, do not currently have well-functioning broadband from either a fixed or wireless network.

In terms of individuals (rather than premises), the 2021 Ofcom report finds that those least likely to have internet connection are:

- Those over 65 years old (18% without access).
- Lower income households (11% without access).
- the most financially vulnerable (10% without access).[24]

Groups vulnerable to digital exclusion include people with poor access to broadband internet or smartphones, older people, those with disabilities, those with poor digital literacy, and those with low English language skills.[25]

Another issue affecting lack of access to, and use of, digital services is cost. An Ofcom review of the affordability of broadband and telecoms services from February 2022 concluded that "significant numbers of UK households face financial difficulties in paying for their internet access services."[26] This problem is likely to have increased as the cost-of-living rose in 2022.[27] A scoping review on digital technology and health inequalities published in 2020 concluded that many groups who are already subject to disadvantage and worse health outcomes are also subject to digital exclusion, and concluded that this needs to be considered when promoting digital innovations to mitigate the risk this inadvertently widens health inequalities.[28]

21 Lloyds Band 'Lloyds Consumer Digital Index 2022', accessed 061222
22 House of Commons Research Briefing, Tackling the digital divide, October 2021
23 Ofcom, Connected Nations 2022 UK Report, December 2022.
24 Ofcom, Digital divide narrowed by pandemic, but around 1.5m homes remain offline, April 2021
25 Stephen Armstrong, 'Universal access to the digital NHS—but only if you have a smartphone', The BMJ, Vol 374 (2021).
26 Ofcom, Affordability of Communications Services, February 2022
27 House of Commons Research Briefing, Rising cost of living in the UK, December 2022
28 Public Health Wales NHS Trust, Digital technology and health inequalities: a scoping review, 2020

Commitment 1: Roll out of the NHS App

Overall Commitment Rating and Overview of the roll out of the NHS App commitment: Requires improvement

Commitment 1 refers to the proportion of adults registered for the NHS App. It contains two targets, the first being that 68% of adults will be registered (which equates to over 30 million people) by March 2023. The second target is for 75% of adults to be registered by 2024. The commitment does not specify a particular month for the 2024 target. In NHS Digital's written submission to our evaluation, this target is specified as being the end of March 2024.[29] The commitment does not set out targets in terms of use, regularity of use, purpose of use, or outcomes of use.

As mentioned previously, the NHS App is central to NHS digitisation efforts, with the plans that it should act as the digital "front door" to the NHS for everyone in England to access their health records and manage their health at home where possible.[30] This App is separate from the NHS Covid-19 app which had been used for alerting individuals that they had been close to an established Covid-19 case by sending them a notification—called being "pinged"—via the app.[31]

The NHS App was rolled out nationally in July 2019, although all GP practices were not connected until February 2020.[32] The NHS App has several functions which work primarily via connection to GP practices. At its launch the NHS App allowed those whose GP practices were connected to book and manage GP appointments (although this was removed due to triaging implemented during the pandemic), order repeat prescriptions and securely view their GP medical record, among other functions. In May 2021 the NHS Covid Pass was added to enable patients to show evidence of Covid-19 vaccinations, which at the time was a common requirement for travel outside the UK.

Whether patients can access other App functionality added since depends on whether their GP and/or hospital trusts offer those services. Services include managing referrals through the NHS e-Referral Service,[33] messaging healthcare professionals online, parents/carers accessing health services for their children, and viewing and managing care plans.[34] Access to and use of various functionalities of the NHS App are only available to Fully Verified P9 (rather than Partially Verified P5[35]) users.[36]

29 NHS Digital (DHS0041)

30 Talha Burki, "A milestone on the journey to a digital NHS", The Lancet Digital Health, Vol 1 (2019) E114–115

31 NHS Digital, 'Differences between the NHS App and NHS COVID App', accessed 130922

32 NHS Digital, NHS Digital Annual Report and Accounts 2019 to 2020, Chapter 5 (November 2021).

33 NHS Digital, 'NHS App integration with the NHS e-Referral Service' accessed 130922.

34 NHS England, 'About your NHS account', accessed 130922

35 The NHS login has three levels of verification P0 (low level), P5 (medium level), P9 (high level). At P5 verification users can record non-medical data (e.g. they can record their data-sharing opt-out preference or their preferred pharmacy); submit an online consultation to their GP; record medical data (e.g. blood pressure readings) to submit to their GP or consultant; contact their GP or receive notifications via email or SMS. They cannot access their medical records or personal information. The additional functionality P9 users have includes being able to read their medical record, view their shared care record (SCR) or detailed record, manage/view appointments, order repeat prescriptions, and view tailored online NHS services and online content; they can record medical data into their private healthcare consultation record; they can delegate access to their record to another validated individual. For full details see: NHS Connect "NHS login user journeys" accessed 131222

36 NHS Connect "NHS login user journeys" accessed 131222

We rated this commitment 'requires improvement' overall. Although there has been a large increase in the number of registrations since the NHS App's launch, this was largely due to the inclusion on the NHS App of the COVID Pass. However, we question whether the commitment's focus on registrations, which is an important first step, leads to increased use or improved outcomes. There appears to be no coherent policy nor specific funding to support the continued roll-out, which is expected to be driven primarily by GP practices without a commitment of providing them with extra financial resource to enable them to do so, and with no additional spend on marketing efforts deemed necessary.

The risk of digital exclusion is recognised but we found little evidence of progress towards the digital inclusion plan due in May 2023, which we expect to include an update on the success of plans to mitigate against digital exclusion. We also conclude that there seems to be a lack of plan or funding for how to mitigate the risk of digital exclusion if clinical services are increasingly delivered via the NHS App.

Was the commitment met overall (or on track)?

Rating: Good

According to NHS Digital and the Department the commitment is on track to be met.[37] There is good evidence[38] that having the COVID Pass on the NHS App (which was, but generally is no longer required to travel abroad) increased awareness of, and registrations for, the NHS App.[39] This also came up in our stakeholder roundtable discussions:

> *"We found a lot of our patients started using it to get their COVID Pass. So actually, that's sort of introduced them and brought them on to the App. And as a consequence, had sort of raised awareness."*[40]

NHS Digital stated that they had met the target of 68% or 30 million people registered by September 2022, and that they are expecting 32 million sign-ups by the end of March 2023 and 33.8 million sign-ups by the end of March 2024.[41] Their written submission sets out that they use sign-ups as a proxy for the equivalent percentage of the English adult population but qualify that "sign-ups" includes people aged 13–15 and there are more sign-ups than individual users.[42]

NHS Digital stated 75% of users had logged in to the NHS App in the last 6 months, arguing that this demonstrates that there is "a core userbase that remains engaged".[43] However several stakeholders pointed out that App registrations do not necessarily equate to patients using the NHS App regularly and the number of registrations does not provide information about how patients are using it.[44]

37 NHS Digital (DHS0041), Department of Health and Social Care (DHS0042)

38 Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020)

39 Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020), Department of Health and Social Care (DHS0042), NHS Digital (DHS0041), British Thoracic Society (EPW0009), Cisco (DHS0037), The Company Chemists' Association (DHS0030), The Practice Management Network (DHS0036), Healthwatch England (DHS0033)

40 Stakeholder roundtable

41 NHS Digital (DHS0041)

42 NHS Connect "NHS login user journeys" accessed 131222

43 NHS Digital (DHS0041)

44 Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020), Healthwatch England (DHS0033), Cisco (DHS0037)

Overall, we conclude that progress on meeting this commitment is 'good', given the first target has been reached before the time set out in the commitment. However, we question the validity of the numbers of sign-ups, as being registered does not automatically mean that the user is using the NHS App with full functionality.

Was the commitment effectively funded (or resourced)?

Rating: Requires Improvement

Some of the evidence we received suggests that there had been little additional financial support for ICSs and/or GP practices to increase patient uptake of the NHS App, beyond initial funding for pilot sites.[45] The evidence suggested that GP practices in particular were not given support to encourage patients to register for and use the NHS App, despite NHSE asking ICSs to place the responsibility for achieving sign-ups to the NHS App on GP practices.[46] Some stakeholders pointed out that the roll-out of the NHS App can increase GP workload as they need to support patients to use it, or have to put alternate systems in place to ensure all patients can access their services whether or not they use the NHS App.[47]

In their written submission to us, Greaves and colleagues reported on their research independently evaluating the NHS App. Their evaluation did not include a specific financial appraisal, but they set out that:

> *"[…] in our qualitative research we identified that there has been little dedicated funding and support (apart from generic 'digital health' budgets at CCG [Clinical Commissioning Group] level) for GP practices to incorporate aspects of the NHS App into their administrative practices (e.g. appointment booking, ordering prescriptions) and engage with patient requests for support with the registration process, access to their records etc."*[48]

Dr Helen Atherton stated that although she was unable to comment specifically on funding for the NHS App, she had made this observation:

> *"The use of digital services in General Practice has required that patients are supported to use them and this has placed demand on reception and administrative staff in general practices, without any extra resource provided to support this."*[49]

The Department stated that funding for this commitment was part of a package delivered by NHS Digital to develop the National Digital Channels, which includes the NHS App as well as the NHS website.[50] However, the NHS Digital Board public minutes from September 2022 show that funding has been reduced for digital services including the NHS App, despite it being a key pillar of the NHS's digital offering. This suggests that the

45 Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020), The Practice Management Network (DHS0036)

46 NHS England, 2022/23 priorities and operational planning guidance, 22 February 2022

47 The Practice Management Network (DHS0036), Dr Helen Atherton (DHS0009)

48 Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020)

49 Dr Helen Atherton (DHS0009),

50 Department of Health and Social Care (DHS0042)

funding model is not sufficiently agile to manage the increase in NHS App registrations as aimed for in this commitment, without compromising digital in other areas, including staffing.[51]

Furthermore, in their written evidence the Department stated that there had been no additional funding provided to increase awareness and uptake of the NHS App, and that they recognised this as a cost pressure.[52] Comments from participants in stakeholder roundtables indicated that the lack of marketing budget may affect uptake and use of the NHS App, as patients lack awareness of what the NHS App can do beyond the COVID Pass. A stakeholder at the roundtable described how their GP practices' efforts were failing to raise awareness of the NHS App among patients:

> *"I think the biggest issue that people have is that they just don't know it's there, despite the fact that if you, from my practice, you go on to the website, it's the first thing that we promote on there. And we're trying to direct patients through it for, as I say, the routine ordering of repeat medications and the like because it then turns it into a 24/7 service for them. There are cohort who just like to speak to the practice to do this because they want a more personal interaction and they don't want a digital interaction. But I think it's a lack of awareness that is the biggest block at the moment. I'd say the functionality is quite basic. So it seems to work for what it's meant to do, so I don't think it's functionality issue at the moment that is stopping people using it."*[53]

Based on the evidence available to us, we conclude that the funding aspect for this commitment 'requires improvement'.

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Requires Improvement

We received evidence that was positive about the benefit of the NHS App for some patients and people in receipt of social care, but found that use of the NHS App was highly dependable on patient characteristics, including age or level of deprivation. Greaves and colleagues provided evidence from their independent evaluation of the roll-out of the NHS App, and emphasised the NHS App's positive impacts in supporting people who lived with complex conditions and co-morbidities, and who therefore have to access various letters, test result and appointment notes in order to monitor their health. They argued that being able to access this through the NHS App gives patients a sense of control over the management of their own health.[54]

51 NHS Digital "1 November 2022 public board (web pack)" accessed 051222. The minutes on the NHS Digital Public Bord Meeting from September 2022 showed a forecasted overspend of £18.2m in revenue for digital due to funding reductions and cost pressures on delivery, which including the extra costs of running the NHS App after the COVID pass increased registrations together with increased NHS Digital staff costs due to pay deals. Furthermore, this shortfall had grown by £2.4 million in September 2022 compared to the forecast from the previous month. It is clear from these minutes that the cost of running the NHS App increased just as funding for NHS Digital activities including the NHS App was reduced. It is not clear precisely how much the NHS App funding was reduced compared to the funding of other digital activities, although the minutes do state that a reduction in planned recruitment of NHS Digital Staff had reduced costs.

52 Department of Health and Social Care (DHS0042)

53 Stakeholder roundtable

54 Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020)

The positive impacts of patients having improved control over their health via their use of the NHS App were mentioned by a participant in the stakeholder roundtable discussions:

> *"I particularly find the fact that, as a dyslexic person, it [the NHS App] does my facial recognition and so on means like less typing, less thumbing around. So my experience [of] the App is very positive. And I have a long term health condition, I'm tested regularly for blood work, and I find the fact that I don't have to call anyone – it just appears on the App what my test results are – and the fact that I can access my medical notes, to be very useful for monitoring my health condition and it just gives me peace of mind."*[55]

Ordering repeat prescriptions via the NHS App was highlighted by the Department as an area of good practice[56] and was also mentioned in some evidence submissions,[57] and in comments made by participants in stakeholder roundtables. However, Pharmacy2U indicated that limitations in functionality of the NHS App prevent their customers from getting reminders about repeat prescriptions,[58] something also recognised by the Department in their written evidence.[59] The NHS App is one of several ways patients can order repeat prescriptions online, which Cisco identified as a potential source of confusion.[60] In their written evidence to us, NHS Digital wrote that 2 million repeat prescriptions were ordered via the NHS App in September 2022.[61] NHS Digital had previously stated there are 410 million repeat prescriptions every year,[62] which suggests that the proportion of repeat prescriptions ordered via the NHS App is considerably lower than those ordered in other ways, for example via the NHS website, or by other online services or apps used by GP practices.[63]

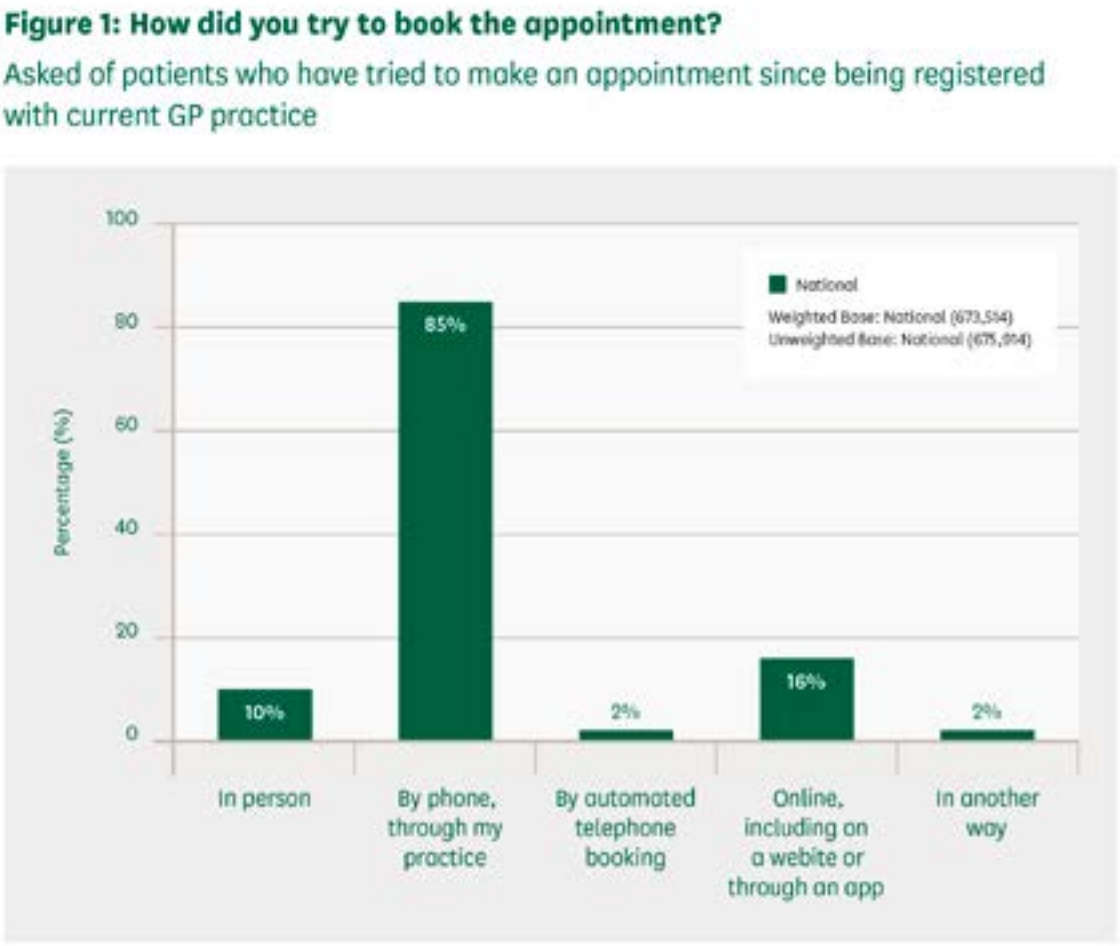
The use of multiple apps and digital systems with similar functionality within the same GP practice, as well the lack of integration between the NHS App and other systems used by GP practices, hospitals, and in community settings (e.g. pharmacy) could make it confusing for patients who have several options to access the same digital services.[64] This was described by a participant in a stakeholder roundtable:

> *"I think the issue with a lot of these apps is they don't actually connect very well together. So I think we're going into more apps and technology without actually thinking about how all of this connects up. What is the point in having three different apps for three different things? Just thinking about my older colleagues and service users, it's bad enough having to use one app, let alone having to use four different apps for four different things within your healthcare. Currently I use one for my mental health, I have one for my autism, [and] I have one for my GP."*[65]

55 Stakeholder roundtable
56 Department of Health and Social Care (DHS0042)
57 The Company Chemists' Association (DHS0030) Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020)
58 Pharmacy2U (DHS0011)
59 Department of Health and Social Care (DHS0042)
60 Cisco (DHS0037)
61 NHS Digital (DHS0041)
62 NHS Digital 'Maximising electronic repeat dispensing' accessed 051222
63 NHS England "How to order a repeat prescription" accessed 151222
64 Cisco (DHS0037), Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020), Dr Helen Atherton (DHS0009)
65 Stakeholder roundtable

Having multiple access points for the same services can create risk, barriers to inclusion and inefficiency. The 2022 GP patient survey indicated that, nationally, only 16% of patients used an online service to book a GP appointment, and this includes all websites or apps, not necessarily just the NHS App.[66] See Figure 1 below.

Figure 1: NHS GP Patient Survey 2022 results for question 12 (Q12) "How did you try to book the appointment?" which was asked of over 670,000 patients who complete the survey between 10th January 2022 and 11th April 2022 who had said they had tried to make an appointment since being registered with their current GP practice. The results indicate that only 16% tried to book online via a website or app.[67]



66 NHS England, GP Patient Survey (July 2022)

67 NHS England, GP Patient Survey (July 2022)

Poor integration of the NHS App with other systems and lack of full (P9) user verification can result in lack of access to App functionality beyond core functionality. Patient access to the NHS App functionality is also variable depending on whether local providers have enabled services.[68] A participant during our stakeholder roundtable told us:

> *"I've shared the same frustration of having gone through several screens warning me that I might be worried about seeing my medical records to only be greeted by the final screen that says your GP is not yet sharing anything with you. And again, from a service user experience that's obviously quite frustrating because I feel I've been promised something, gone through several hurdles to get to it, only to be told at the end your GP hasn't decided that that's something that they're yet willing to do."*[69]

This variability was acknowledged by the Department.[70] It is likely to reflect the varying digital maturity across ICSs, which itself indicates variable delivery of other important digital goals across England.[71] Through an analysis of a survey of Trusts, the FCI concludes that centralised funding impacts on the level of digitisation and digital maturity of organisations.[72] We will discuss digital maturity of ICSs later in this report.

Many stakeholders expressed concern that an over-reliance on the NHS App, as opposed to traditional service delivery, will increase digital inequality. Stakeholders highlighted the need to provide alternatives to ensure that those who do not, or cannot, use the NHS App are not disadvantaged.[73]

Digital exclusion is recognised as an issue by the Department who noted that they had committed to producing a framework for NHS action on digital inclusion, and to develop further resources to support systems in practical action by, May 2023. This included mentions (but no evidence on progress) of:

- research on how to motivate the use of digital channels,
- a proof-of-concept project to train digital health champions,
- a pilot scheme to promote NHS digital health products and services in languages other than English, and
- the NHS Digital Widening Digital Participation programme which had run from 2013–2020.[74]

68 Chartered Society of Physiotherapy (DHS0006), National Community Pharmacy IT Group (DHS0018), The Practice Management Network (DHS0036), Healthwatch England (DHS0033), Pharmacy2U (DHS0011), The Company Chemists' Association (DHS0030), Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020) Cisco (DHS0037)

69 Stakeholder roundtable

70 Department of Health and Social Care (DHS0042)

71 DHSC, A plan for digital health and social care, June 2022.

72 Faculty of Clinical Informatics, Summary report on a survey of the Clinical Informatics Workforce in NHS Trusts in England (January 2023)

73 Chartered Society of Physiotherapy (DHS0006), TSA (DHS0007), The British Association of Dermatologists (DHS0031), The Practice Management Network (DHS0036), Healthwatch England (DHS0033), Dr Helen Atherton (DHS0009), Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020)

74 Supplementary evidence provided by the Department of Health and Social Care (DHS0056)

Data provided by the Department shows variability in NHS App uptake by CCGs (Clinical Commissioning Groups), ranging from 41.44% in Black Country and West Birmingham Bradford District and Craven, to 66.22% in Surrey Heartlands.[75] Greaves and colleagues provided evidence which showed differential uptake of the NHS App from its launch to February 2021, with higher numbers of registrations among GP practices in less deprived areas, as well amongst younger patients.[76]

Digital inequality also came out as a strong theme in stakeholder roundtable discussions with representatives across both health and social care:

> *"The problem we have in the sector that I work in is that is the accessibility of the technology as a determinant of whether people use it or not. And that's quite fundamental. I also know that's a huge challenge because if you're talking about people who are restricted in their abilities physically and mentally, it's really difficult to build an app. But I think where we have advocates and people who work on behalf of those individuals, then there may well be ways of enabling them to have the right protocols of access for data, etcetera, that makes it possible."*[77]

In their written evidence the Department recognised the issue of access to digital devices and internet connection, and stated that work is being done to understand and mitigate this,[78] and that it is important to ensure that everyone has access to the NHS App.[79]

We conclude that the impact for patients and people in receipt of social care regarding this commitment 'requires improvement'. The evidence we received suggests that while some patients do benefit from using the NHS App, there is considerable variability and inequity in its uptake and use for different purposes, and an over-reliance on the NHS App has the potential to exacerbate health inequalities unless staff are able to support patients to use it and non-digital solutions are put in place for those who cannot or choose not to use it. In addition, the functionality of the NHS App is limited by variability in the digital maturity across the ICSs.

Was it an appropriate commitment?

Rating: Requires Improvement

Several stakeholders agreed that the NHS App has potential to improve care[80] and that increasing the number of people registered are important first steps.[81] However, many stakeholders were concerned that the commitment's focus on registrations is too narrow and could risk detracting from more meaningful ambitions to benefit patients. Some

75 Supplementary evidence provided by the Department of Health and Social Care (DHS0056)

76 Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020)

77 Stakeholder roundtable

78 Department of Health and Social Care (DHS0042)

79 Department of Health and Social Care (DHS0042)

80 Chartered Society of Physiotherapy (DHS0006), British Association of Dermatologists (DHS0031), Healthwatch England (DHS0033), PAGB (DHS0013), The Company Chemists' Association (DHS0030), Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020)

81 ORCHA (DHS0029), Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020)

argued that the commitment should include how the NHS App is used, its impact on outcomes, how the Department is mitigating digital inequalities, and targets on access to various App functionality and interoperability.[82]

The Department response concluded that this commitment was appropriate given the centrality of the NHS App to the NHS's digital offer, and argued that the NHS App will allow patients and people in receipt of social care to better understand health inequalities, however they also pointed out that:

> *"Understanding of the impact of the NHS App on health outcomes is currently limited due to the lack of individual level data, challenges with data linkage and the complexity of inferring causality on outcomes where many factors will play a part".*[83]

We rated the appropriateness of the commitment as 'requires improvement' because of evidence that despite the importance of registration as a first step, the focus on registrations is too narrow and risks detracting from more meaningful ambitions to benefit patients. Such ambitions include ensuring equitable access to the NHS App and enhanced utility, which will require improved integration and interoperability across health and social care.

Commitment 2: Supporting people to monitor and manage their health at home

Overall Commitment Rating and Overview of supporting people to monitor and manage their health at home: Requires improvement

This commitment reflects the Government's ambition to enable people, particularly those with long-term chronic conditions, to manage their own health[84] and thus have better health outcomes.[85] The commitment was included in the Department's policy paper 'A plan for digital health and social care'. It relates to commitments to increase the availability of digital monitoring for people in care homes and at home, and to scale virtual wards, particularly in relation to frailty and respiratory conditions, so as to reduce the length of time people stay in hospital.[86] In their written evidence to us, the Department stated these would be achieved mostly via virtual wards and by supporting people at home.[87] This commitment also specifies that "increasing digital connectivity" is one way by which the Government will support individuals to manage their own health.

According to the NHS, a virtual ward provides support to patients outside of hospital or the clinical environment. While virtual wards do not necessarily use digital technology, they can be "tech-enabled" and include remote monitoring of patients through apps, technology platforms, wearable technology, and medical devices such as pulse oximeters.[88]

82 Chartered Society of Physiotherapy (DHS0006), TSA (DHS0007), Dr Helen Atherton (DHS0009), Pharmacy2U (DHS0011), Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DHS0020), Nuffield Trust (DHS0032), The Practice Management Network (DHS0036), Cisco (DHS0037), National Community Pharmacy IT Group (DHS0018), Healthwatch England (DHS0033), medConfidential (DHS0043) Nuffield Trust (DHS0032)

83 Department of Health and Social Care (DHS0042)

84 Patients Association, Self-management, accessed 130922

85 NHS, NHS Long Term Plan, January 2019

86 DHSC, A plan for digital health and social care, June 2022.

87 Department of Health and Social Care (DHS0042)

88 NHS England, Virtual Wards, accessed 130922

Virtual wards were set up to care for people after they started to recover from Covid-19. Patients were discharged from hospital and provided with a pulse oximeter to monitor their blood oxygen levels from home with remote support, rather than recovering in a hospital setting.[89]

Monitors such as the flash glucose level monitors (flash for short) for people living with diabetes are another example of wearable technology. The flash uses a sensor placed on the back of the upper arm of the user, allowing glucose information to be monitored and results displayed in a mobile app. This information helps the user and their clinical team identify what changes are needed in regard to the patient's insulin administration in order to achieve optimal glucose control and thereby reducing risks of adverse outcomes.[90] In the NHS Long Term plan, people needing pulmonary rehabilitation for conditions such as constrictive obstructive pulmonary disease (COPD) were also identified as potentially benefiting from digital tools for self-management.[91]

In 2016 the Nuffield Trust produced a report analysing the possibilities and possible challenges of digital or tele-health enabled remote healthcare. Their analysis showed that there are several possible benefits of receiving care remotely at home over the internet or over the phone, such as:

- Removing the geographical barrier between patient and healthcare professional, meaning no travel is needed and more specialised support is available, in addition to enabling a small number of healthcare professionals to cover a larger geographical area.
- Better referrals as a result of remote consultation before attendance at a healthcare facility.[92]

However, the Nuffield Trust analysis also identified challenges, including:

- Not all patient groups will benefit from this type of care, and patients need to be screened carefully to ensure this is the best approach for them.
- Staff need to be trained continuously in how to provide care in this way.
- Patient engagement needs to be monitored carefully, ensuring that they feel safe, supported and able to receive care in this way. The care also needs to be tailored to the patient's circumstances in order to be successful.[93]

They also stated that although home monitoring devices can collect large amount of data and transfer it to someone's electronic health record (EHR), there were questions about whether there is capability within the NHS to interpret the data, and whether the apps collecting the data from these devices are completely safe.[94]

89 NHS England, COVID virtual wards, accessed 130922
90 NHS England, Glucose monitoring for patients living with diabetes, accessed 130922
91 NHS, NHS Long Term Plan, January 2019
92 Nuffield Trust, Delivering the benefits of digital health care, February 2016
93 Nuffield Trust, Delivering the benefits of digital health care, February 2016
94 Nuffield Trust, Delivering the benefits of digital health care, February 2016

Several academic reviews of literature from across the world have demonstrated that large-scale patient and system benefits of remote care and digital monitoring can differ in successful outcomes.[95] One academic review suggests that it can be difficult to scale digital remote monitoring to deliver consistently positive outcomes.[96]

A recent example of the challenges of implementing and demonstrating the benefit of remote monitoring across England comes from an integrated summary of three NIHR-funded independent evaluations of the Covid Oximetry at home (called the CO@h programme), published on the Nuffield Trust website. The CO@h programme was primarily implemented in general practice. People in the community with Covid-19 were given pulse oximeters to measure their blood oxygen levels at home and report findings digitally ("tech-enabled") or via phone ("analogue"). The evaluations found:

- The programme was implemented differently across geographic areas and had gaps in data collection.
- The programme had low patient enrolment particularly within care homes. It had especially low enrolment on the tech-enabled pathway of care home residents, people with a learning disability and people with chronic neurological conditions or several mental illness.
- At population and local (Clinical Commissioning Group) levels the programme had no impact on mortality, which may or may not have resulted from data gaps and/or the roll-out of other concurrent programmes such as virtual Covid wards which made it difficult to establish the particular impact of the CO@h programme.
- Analysis of a smaller subset of data from one geographic area showed CO@h reduced patient mortality but this may not be generalisable to other areas.
- Staff reported finding monitoring patients on the tech-enabled pathway easy but spent time chasing up information from patients who had not submitted data.[97]

Overall, our rating of this commitment is that it 'requires improvement'. The evidence we received shows that digital tools have significant potential to reduce pressure on the NHS and deliver better care. We found that progress on this commitment was supported by additional funding allocated to digital initiatives during the Covid-19 pandemic. There are now a large number of smaller projects, many of which are reporting positive

95 Martin Cowie & Carolyn Lam. Remote monitoring and digital health tools in CVD management. Nature Reviews Cardiology, 2021; Rachael C Walker et al "Patient expectations and experiences of remote monitoring for chronic diseases: systematic review and thematic synthesis of qualitative studies" International Journal of Medical Informatics, Vol 124, 78–85 (2019); Ahmed Alboksmaty et al. "Effectiveness and safety of pulse oximetry in remote patient monitoring of patients with COVID-19: a systematic review", The Lancet Digital Health, Vol 4 (2022) E279-E289; Stefan L Auener et al, The effect of non-invasive telemonitoring for chronic heart failure on health care utilization: systematic review, Journal of Medical Internet Research, Vol 23 Issue 9, e26744 (2021).

96 Ashok Vegesna et al. "Remote patient monitoring via non-invasive digital technologies: a systematic review" Telemedicine and e-Health Vol 23 Issue 1, pp.3–17 (2017)

97 Nuffield Trust 'COVID Oximetry @home evaluation Interpretation of findings' November 2021. See also publications from each evaluation: Michael Boniface et al "COVID-19 Oximetry @home: evaluation of patient outcomes" BMJ Open Quality, Vol 11:e001584 (2022); Chris Sherlaw-Johnson et al "The impact of remote home monitoring of people with COVID-19 using pulse oximetry: A national population and observational study" eClinicalMedicine, Vol 45 (2022); Beaney "Population-level impact of a pulse oximetry remote monitoring programme on mortality and healthcare utilisation in the people with COVID-19 in England: a national analysis using a stepped wedge design" Emergency Medicine Journal; Vol 39 (2022).

outcomes in specific groups of patients within specific areas. However, the evidence also showed that NHSE has delegated responsibility and funding of much of the work for this commitment to individual ICSs of differing digital maturity, and which are facing individual local pressures. This poses a risk to the consistent and equitable roll-out of successful initiatives. Furthermore, the evidence indicates that there is a lack of consistent data on use and uptake of initiatives across the country and across areas of care, and a lack of evidenced based strategy for the scaling and roll-out of beneficial programmes within a stated timescale.

We note that on 30th January 2023 the Department and NHSE published a delivery plan for recovering urgent and emergency care services. The plan details the steps they are taking to improve emergency waiting times and patient experience. It includes commitments to increase the use of virtual wards, particularly for frailty and acute respiratory infection to reduce emergency admissions in winter 2023/24, and also to increase evaluation to support implementation of virtual wards.[98] Given the timing of its publication, we did not receive evidence in relation to the plan and therefore we have not included it in our evaluation, however we note that it has been introduced specifically to cope with extremely high pressures on urgent and emergency care.

Was the commitment met overall (or on track)?

Rating: Requires Improvement

In this section we evaluate whether this commitment was on track to be met overall. Several stakeholders criticised the commitment's lack of a clear deadline or success criteria.[99] The Department pointed to more specific commitments, which they said underpinned their aim to "scale digitally enabled care to more people in their homes" and which they stated are largely delivered through virtual wards and supporting people at home. They went on to set out that both programmes are on track to deliver or ahead of plan, which it argued was due to the fast adaptation to digital during the Covid-19 pandemic.[100]

These additional commitments referred to by the Department are:

- **Increasing digital monitoring of vital signs for people in care homes and at home for a further 500,000 people by March 2023.** The Department indicated this is currently 60% met and is on track to be met, although impacted by reduced funding and resources.
- **40 to 50 virtual ward 'beds' per 100,000 of the population by March 2024.** The Department reported that ICSs are making progress on delivering this, although it's unclear whether the target is on course to be met.
- **Development and roll out in a selection of ICSs of a tech-enabled annual physical check for people with severe mental illness by March 2023.** The Department stated that this target has been met ahead of time, with 6,810 people having received their annual physical check in year by October 2022, although it

98 Department for Health and Social Care and NHS England 'Delivery plan for recovering urgent and emergency care services', January 2023.

99 Chartered Society of Physiotherapy (DHS0006), The Royal College of Surgeons of Edinburgh (DHS0012), Pharmacy2U (DHS0011), Nuffield Trust (DHS0032)

100 Department of Health and Social Care (DHS0042)

is uncertain what proportion of people living with more than one mental illness this represents. The Department also states that not all tech-enable physical checks are "live".

- **Defining of clinical pathways where people are supported to self-monitor and self-manage by March 2024**. It is not clear which clinical pathways this commitment refers to. No evidence was provided by the Department with regards progress on this other than specifically relating to virtual wards, regarding which it stated that ICSs had been asked to set up virtual ward models for acute respiratory infection and frailty. The Department added that depending on the "maturity of services", other pathways could and was expected to, be developed.[101]

Written evidence from the Nuffield Trust and techUK suggested that the use of health technology, including home digital monitoring and virtual wards, had increased during the pandemic[102] however, Zoom UK&I argued that it was not clear whether digital monitoring is working in people's homes.[103] The Care Provider Alliance (CPA) argued that a there was a lack of integration of remote monitoring into care provider systems, and pointed to a lack of approved suppliers that GP Connect[104] systems can integrate with.[105] The Professional Records Standards Body (PRSB) stated that although they had been commissioned by NHS Digital to develop standards to support the information sharing required to facilitate self-monitoring, it is unclear who holds the responsibility for widescale adoption of standards. They added that meeting this commitment will require central direction within the NHS and sustained effort over years.[106]

According to the Department, the roll-out and uptake of digital monitoring is small-scale and local, but a large independent evaluation funded by NIHR (National Institute for Health and Care Research) is being initiated.[107] In their supplementary evidence, the Department provided further examples of successful programmes run by particular trusts or CCGs/ICSs, however—other than the planned NIHR-funded evaluation—there remains a lack of evidence about what plans the Department has to ensure the scaling of digital monitoring and its effectiveness, particularly within ICSs that are less digitally mature.[108]

We have rated progress on the delivery of this commitment as 'requires improvement' due to the uncertainty among stakeholders about how to assess whether this target has been met and the lack of evidence for a clear plan for scaling-up the adoption of the numerous digital solutions currently being implemented on a smaller scale in local areas.

101 Department of Health and Social Care (DHS0042)
102 Nuffield Trust (DHS0032), techUK (DHS0008)
103 Zoom UK&I (DHS0015),
104 GP Connect is an NHS Digital service that allows authorised clinical staff to view patient information from GP records
105 Care Providers Alliance (DHS0019)
106 Professional Record Standards Body (DHS0028)
107 Department of Health and Social Care (DHS0042)
108 Supplementary evidence provided by the Department of Health and Social Care (DHS0056)

Was the commitment effectively funded (or resourced)?

Rating: Requires Improvement

Stakeholder evidence indicate that the Covid-19 pandemic increased the amount and flexibility of funding models[109] and increased available funding aimed to support people to manage their health, and to develop standards.[110] However, several stakeholders also indicated current funding levels are not sufficient to meet the target of this commitment, particularly with regards social care. Some stakeholders argued that ringfenced funding is required in order to digitalise social care. Stakeholders called for greater clarity on how funding will be allocated and distributed in order to enable providers across the system meet this commitment.[111]

According to the Department much of the planned funding for this commitment, beyond the Covid-19 pandemic period, supporting the extension of home or remote monitoring will now be allocated to enable virtual wards, with a significant portion of the remaining costs expected to come from ICS budgets. The Supporting People at Home funding to accelerate the adoption of home monitoring technologies closed early. The Department stated that this was because the ICSs now know how to implement remote patient care pathways to benefit patients and now need to achieve that implementation, and because national support for virtual wards was now being prioritised.[112] December 2021 NHSE planning guidance set out that up to £200 million would be made available to fund virtual wards in 2022/23, and up to £250 million in 2023/24 to ICSs, and £189 million has so far been allocated.[113]

A subsequent NHSE document published in April 2022 to guide ICSs in making strategic and financial decisions on virtual ward planning and implementation, clarifies that the £200 million funding for virtual wards in 2022/23 has been made available to ICSs through Service Delivery Funding via fair share allocation. NHSE expects that approximately 82% of the funding will be spent on staffing virtual wards, 7% on licensing costs, 2% on interoperability costs, 1% on consumables, and 8% on other overhead costs. The additional funding (up to £250 million) for 2023/24 is described in the guidance as temporary funding that will be awarded to ICSs on the condition that they match-fund, and that from 2024/25 no ringfenced recurrent funding will be made available for virtual wards.

The guidance also states that ICS planning for virtual wards should be developed across systems and provider collaboratives which includes partnerships with organisations across multiple sectors. This guidance identifies as including social care, secondary and primary care, community, mental health services and the independent sector. Furthermore, the guidance also sets out a good practice recommendation for virtual wards to be integrated working across health and social care.[114]

109 Dr Frederick Konteh et al (DHS0005)
110 techUK (DHS0008), The Practice Management Network (DHS0036)
111 Chartered Society of Physiotherapy (DHS0006), techUK (DHS0008), Care Providers Alliance (DHS0019), Professional Record Standards Body (DHS0028), Zoom UK&I (DHS0015), The Royal College of Surgeons of Edinburgh (DHS0012)
112 Department of Health and Social Care (DHS0042)
113 Department of Health and Social Care (DHS0042)
114 NHS England, Supporting information for ICS leads Enablers for success: virtual wards including hospital at home, April 2022

We consider the funding allocation for this commitment 'requires improvement'. Although the Covid-19 pandemic conditions and specific demand for digital services increased the amount and flexibility of funding models, the evidence we received indicates that funds were not sufficient to meet the target of the commitment. This was particularly the case with regards social care. A lack of targeted funding also runs the risk that funding allocated to digital services and initiatives risks being re-allocated if there is greater needs in another part of the service.

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Requires Improvement

There was widespread agreement among stakeholders that this commitment has the potential to benefit health and social care significantly,[115] and therefore have a positive impact for patients and people in receipt of social care.[116] The Department provided many examples of how digital remote care has been beneficial to patients and brought cost-savings.[117]

Two stakeholders were less positive. Healthwatch referred to a study they had carried out of patients using blood pressure monitors at home, which found that nearly half of the participants were unable to submit electronic readings to their GP.[118] Konteh et al referred to their qualitative study of virtual wards in mental health which had identified concerns about breaches of patient confidentiality.[119] Some stakeholders told us that digital inequalities could prevent the commitment having positive impacts across the population.[120]

The difference in views on whether this commitment has had a positive impact on patients and people in receipt of social care was evident in our stakeholder discussions. One GP described how remote monitoring devices and easy access to digital patient records enabled them to care for patients in the community and in care homes. They said that with the right technology and interoperability, digital monitoring and remote care can reduce pressure on acute care and address health inequalities among patients who find it difficult to access general practice:

> *"We've got continuous blood pressure monitoring for diabetes, leading to reduction in admissions and better outcomes. And the fact that we can carry the medical record around with us when we're out visiting – I've got an iPad which gives me the full medical record so I'm much better clued up when I go into the patient's home; both my own patients, but more importantly, if I'm working in out of hours covering other people's patients, we do ward rounds*

115 Chartered Society of Physiotherapy (DHS0006), The Royal College of Surgeons of Edinburgh (DHS0012), ORCHA (DHS0029), Zoom UK&I(DHS0015)

116 The Practice Management Network (DHS0036), Nuffield Trust (DHS0032), PAGB (DHS0013), techUK (DHS0008), ORCHA (DHS0029), Zoom UK&I(DHS0015), Pharmacy2U (DHS0011), Professional Record Standards Body (DHS0028)

117 Department of Health and Social Care (DHS0042)

118 Healthwatch England (DHS0033)

119 Dr Frederick Konteh, Prof Russell Mannion, Prof Rowena Jacobs (DHS0005)

120 Chartered Society of Physiotherapy (DHS0006), Nuffield Trust (DHS0032), Royal College of Physicians and Surgeons of Glasgow (DHS0014), Dr Frederick Konteh, Prof Russell Mannion, Prof Rowena Jacobs (DHS0005)

> *using technology iPads. And for care homes, now we can sort of do a ward round remotely, utilising the nursing staff in the home. […] We don't have enough beds in the NHS. Everybody has a bed at home. So if we can keep them at home in their own bed and use technology to monitor them for that lower acuity illness, then that's massively important in saving acute beds. And for me as a GP, sort of those intermediate care beds where they need a little bit more care but not necessarily those of a specialist in a hospital. And it also empowers families and friends to look after people in their own home because they've got quicker access to information and remote healthcare. Particular groups we're finding it useful for is the homeless. So those are socially excluded. The fact that we can provide a digital health hub where people go in and they can join through a sort of remote connection from a place that they're happy to attend if they won't go into a health setting."*[121]

By contrast, another GP in our roundtable discussions described the lack of digital technology available to them:

> *"…as a GP I treat a lot of patients at home and do home visits, as do many of my colleagues. And there is really no digital tools available to us. During COVID we were sent a few pulse oximeters and blood pressure machines. But you know it was just sort of an ad hoc basis really and something that they felt they had to do. But we've got rapid response teams that can give intensive nursing care to patients who we try and keep out of hospital. But there's no digital link up here, nothing liaising with our clinical systems or even the hospital system. So again, it's not well developed at all and there is a lot of potential there as well, so that certainly does need looking at."*[122]

The need for better regulation, standards and accreditation of devices and apps for patients to benefit from this commitment was highlighted in written evidence submissions, as was the need to test the effectiveness of digital replacements for face-to-face care.[123] The Practice Management Network also discussed the need for workforce capacity to implement benefits from remote monitoring,[124] which was a point also raised by several participants in our roundtable discussions:

> *"[…] whether it is a virtual ward or a hospital ward, we still always get this challenge of fundamentally it's about workforce and whether or not you have the workforce in the hospital or in the community, you still need an effective workforce to be able to deliver it"*[125].

> *"We've had difficulty recruiting nursing staff for our virtual ward, and while we might have [an electronic patient record system], we are a long way behind with our virtual ward, but we're getting there."*[126]

121 Stakeholder roundtable
122 Stakeholder roundtable
123 Zoom UK&I (DHS0015), ORCHA (DHS0029), PAGB (DHS0013), medConfidential (DHS0043)
124 The Practice Management Network (DHS0036)
125 Stakeholder roundtable
126 Stakeholder roundtable

Several stakeholders indicated that more data and information is needed to understand the impacts of the commitment.[127] The Department's response acknowledged the lack of data in regard to the impact on remote healthcare on patients and people in receipt of social care and stated that the evaluation of virtual wards is at an early stage, with limited evidence yet on equity of access and outcomes. The Department also pointed to an independent evaluation of Supporting People at Home programme which will be funded by NIHR, as mentioned previously in this chapter.[128]

In our view, the commitment's impact on patients and those in receipt of social care 'requires improvement' because although it has significant potential to so do, and there is some evidence of benefits, without more data and information, it is not possible to establish whether these benefits have been consistently realised.

Was it an appropriate commitment?

Rating: Requires Improvement

Stakeholders were generally positive regarding the commitment in principle,[129] however, several stakeholders found it too vague. Without specific deadlines and targets many argued that it is difficult to evaluate the commitment.[130] The Department stated that the commitment is appropriate, and that ICSs should have responsibility for delivering it.[131] However, assigning this responsibility to ICSs could be a risk, the digital capabilities of individual ICS may vary.

The PRSB emphasised the interdependencies of this commitment with progress on other digital commitments saying that a host of issues need to be addressed to achieve the interoperability required for this commitment to be met.[132] Similarly, the Nuffield Trust said that their research indicates that for the commitment to be met, it needs to be part of an overarching digital and health policy. They also stated that while digital solutions can enable healthcare they are not in and of themselves a solution, and as such their development and roll-out should be driven by patient need with a strong focus on addressing and reducing inequalities, rather than by the technology itself.[133]

The need to design technology around care needs, rather than designing care around technology was also mentioned by a physiotherapist during our stakeholder roundtables:

> *"So as a physio and AHP [allied health professional] by background, I feel very strongly about people being able to manage themselves as much as possible and to prevent admissions as much as possible, […] that kind of coproduction element that involving clinicians and patients in this sort of implementation,*

127 Chartered Society of Physiotherapy (DHS0006), TSA (DHS0007), Dr Frederick Konteh, Prof Russell Mannion, Prof Rowena Jacobs (DHS0005)
128 Department of Health and Social Care (DHS0042)
129 Chartered Society of Physiotherapy (DHS0006), TSA (DHS0007), techUK (DHS0008), British Association of Dermatologists (DHS0031), The Practice Management Network (DHS0036), Professional Record Standards Body (DHS0028), Zoom UK&I (DHS0015), The Royal College of Surgeons of Edinburgh (DHS0012), Nuffield Trust (DHS0032), PAGB (DHS0013)
130 National Community Pharmacy IT Group (DHS0018), The Royal College of Surgeons of Edinburgh (DHS0012), techUK (DHS0008), TSA (DHS0007), Chartered Society of Physiotherapy (DHS0006)
131 Department of Health and Social Care (DHS0042)
132 Professional Record Standards Body (DHS0028)
133 Nuffield Trust (DHS0032)

> *because if you go in with a digital solution, you haven't really thought about what the problem is really very carefully and from all perspectives and then you end up with a failure of that solution. So it's kind of that making sure you've really got your problem set out and you're sure you bring the digital solution to match that problem rather than coming in with a digital solution and then try and match your problem to that."*[134]

We conclude that the appropriateness of this commitment is rated 'requires improvement'. This is due to the lack of focus within the commitment on ensuring the foundations are in place to ensure digital tools can be consistently rolled out across ICSs, in order to improve health and care. Some of the evidence we received pointed to positive examples on consultation and evaluation of initiatives. However, these are often developed locally rather than being part of an overall national strategy. Our rating also acknowledges the vagueness of the commitment and lack of deadlines commented upon in many evidence submissions.

Commitment 3: Roll out of integrated care records

Overall Commitment Rating and Overview of the roll out of integrated care records: Inadequate

This commitment comes from the policy paper 'A plan for digital health and social care' and has a target for completion by 2024.[135] The commitment is about enabling patient health and care information to be shared and integrated into a single electronic record. This could lead to patients using it to engage with their health and care more easily, and healthcare professionals accessing up-to-date and accurate patient information. The 2022 policy paper 'Health and social care integration' includes a similar commitment to ensure that:

> *"[…] each ICS has a functional and single health and adult social care record for each citizen by 2024, with work underway to enable full access for the person, their approved caregivers and care team to view and contribute to."*[136]

Integrated care records have been central to the many initiatives around digitising the NHS over the last 20 years, including the 2002 National Programme for IT,[137] the 2013 "paperless NHS by 2018" promise,[138] the 'The future of healthcare' policy paper in 2018,[139] and the NHS Long Term Plan.[140] It was also restated in the Government's 2021 'Build Back Better: Our Plan for Health and Social Care'.[141]

134 Stakeholder roundtable
135 Department of Health and Social Care, A plan for digital health and social care, June 2022, p.30.
136 Department of Health and Social Care, Health and social care integration: joining up care for people, places and populations, February 2022.
137 Dismantling the NHS National Programme for IT" Department of Health and Social Care press release, 22 September 2011.
138 "Jeremy Hunt challenges NHS to go paperless by 2018", Department of Health and Social Care press release, 16 January 2013.
139 Department of Health and Social Care, The future of healthcare: our vision for digital, data and technology in health and care, October 2018.
140 NHS, NHS Long Term Plan, January 2019.
141 Cabinet Office, DHSC, Prime Minister's Office, 10 Downing Street. Build Back Better: Our Plan for Health and Social Care, March 2022.

A National Audit Office (NAO) report on digital transformation of the NHS described the implementation of a new electronic patient record system as "hugely challenging".[142] A key challenge is achieving the interoperability needed to roll out electronic patient records, between the many digital systems holding patient information across NHS and social care providers. According to the 2016 independent Wachter Review (commissioned by the Government following the early closure of the National Programme for IT), creating a functioning interoperable system is "deceptively difficult"[143] requiring not just the right technical standards and interfaces, but also an appropriate balance between patient privacy and information sharing, financial investment, workforce training, and leadership.

Several types of electronic patient data records/systems are referred to within this commitment—see Box 1 for explanations and examples of this complex area. This complexity coupled with the changing terminology adds to the difficulty of evaluating progress on the delivery of this commitment.

Box 1: Electronic patient data records/systems referred to within this commitment

"Nationally held summary data": Summary Care Records (SCR) are created from GP medical records. Staff can access SCR through the national Spine web portal for which NHS Digital is responsible, and patients can access it with permission from their GP practice. At a minimum the SCR includes current medication, allergies and previous bad reaction to medications, and the patient's personal details such as name, address, date of birth and NHS Number. Other information, such as long-term conditions, significant medical history or specific communications needs, is included unless patients have opted out of sharing this information.

"Locally held records": Organisations such as NHS Hospital Trusts, departments within Trusts, and GP practices often have their own electronic patient record (EPR) systems. According to 'A plan for digital health and social care' 86% of NHS organisations and 45% of social care providers have some form of EPR in place. Within a local area there are often many different EPR systems with variable usability and interoperability.

"Shared Care Records" (ShCR) and "Local Health and Care Records (LHCR)" and "integrated care records": These terms are sometimes used interchangeably. They refer to local or regional systems that enable patient information to be shared between organisations such as hospital trusts, GP practices, care providers and Local Government. The Department distinguishes between a basic ShCR and a full ShCR (previously LHCR). The commitment refers to an integrated care record, which is a single longitudinal record of patient health and care accessible to patients, their carers and their care teams.

In 2018 and 2019 NHSE funded eight regions to develop more standardised integrated health record systems across larger areas via the Local Health and Care Record exemplars (LHCRE) programme.[144] This strategy to fund high performing organisations to create

142 National Audit Office, Digital transformation in the NHS, Session 2019–2021, HC 317

143 Robert M Wachter (Chair), Making IT work: Harnessing the Power of Health Information Technology to Improve Care in England: Report of the National Advisory Groupon Health Information Technology in England, August 2016, p.30.

144 Local Government Association and NHS England, Local health and care record exemplars: a summary, May 2018.

examples for other organisations to learn from was recommended in the Wachter Review.[145] The LHCRE programme was also related to an NHS Long Term Plan commitment:

> *"By 2020, five geographies will deliver a longitudinal health and care record platform linking NHS and local authority organisations, three additional areas will follow in 2021".*[146]

The ambition for patients to engage with LHCRs directly was demonstrated by another commitment in the NHS Long Term plan:

> *"[…] by 2023, the Summary Care Record functionality will be moved to the PHR [personal health record] held within the LHCR systems, which will be able to send reminders and alerts directly to the patient".*[147]

The NAO report on digital transformation in the NHS published in early 2020 suggested that the performance of the five localities first included the LHCRE programme to September 2019 had been mixed, and that overall the programme, due to deliver in 2023, was rated amber[148] reflecting delays due to staff shortages and lack of funding commitment to enable it to progress to the next stage.[149] The following year the 2021 Infrastructure and Projects Authority (IPA) Report gave the programme an amber/green[150] rating, stating that it had closed one year early on 31 March 2021 and was to be replaced by the Shared Care Record (ShCR) programme.

According to a NHSX blog published in September 2021, the ShCR programme aimed to ensure all ICSs have a basic shared record, in place by the end of September 2021.[151] According to NHSX a requirement for a basic shared care record is compliance with the minimum viable solution 1.0 (MVS1.0)[152] as defined by the PRSB in their core information standard.[153] The 2022 IPA Report gave the initial ShCR programme a green rating,[154] with accompanying data showing that it had been completed by 31 March 2022 and that it had:

145 Robert M Wachter (Chair), Making IT work: Harnessing the Power of Health Information Technology to Improve Care in England: Report of the National Advisory Groupon Health Information Technology in England, August 2016.

146 NHS, NHS Long Term Plan, January 2019

147 NHS, NHS Long Term Plan, January 2019

148 The Infrastructure and Projects Authority (IPA) uses Delivery Confidence Assessments (DCA) colour ratings. Amber means "Successful delivery appears feasible but significant issues already exist, requiring management attention. These appear resolvable at this stage and, if addressed promptly, should not present a cost/ schedule overrun." IPA, Infrastructure and Projects Authority annual report 2022, July 2022, p.42

149 National Audit Office, Digital transformation in the NHS, Session 2019–2021, HC 317

150 Within the IPA DCA colour ratings, amber/green means "Successful delivery appears probable; however, constant attention will be needed to ensure risks do not materialise into major issues threatening delivery." IPA, Infrastructure and Projects Authority annual report 2022, July 2022, p.42

151 NHS England Transformation Directorate, "A celebration of progress in shared care records", accessed 130922.

152 NHSX's Delivery Plan (December 2021) specified that a basic record is one that "complies with a baseline standard of functionality, the minimum viable solution 1.0 (MVS1.0). This will ensure that NHS trusts and general practice within an integrated care system are able to share data in line with the standards set out in the core information standard. The MVS requirement also requires the use of direct in-context links to shared care records to avoid busy professionals having to log-in to a separate portal to see the shared care record." NHS Transformation Directorate 'NHSX Delivery Plan - Digitise, connect, transform', accessed 200922.

153 Professional Record Standard Body, Core information standard V2.0, accessed 300123

154 Cabinet Office and HM Treasury, Infrastructure and Projects Authority Annual Report on Major Projects 2021–2022, 2022

> *"[…] successfully achieved 100% delivery of basic shared care record capability across England. National programme funding was made available to 33 ICSs to support their work in this area."*[155]

According to the NHSX blog, the next steps are to connect social care, pharmacies and other care settings into the ShCR and to enable information from ShCRs to be shared across ICSs.[156]

Overall we have rated the Government's progress on delivering this commitment as 'inadequate'. There is widespread support among stakeholders for having a single health and care record accessible to patients, their carers and care teams, and there has been progress in rolling out a basic ShCR across ICSs. However, the evidence shows that the commitment is far from being on track to meet its target on time due to lack of interoperability between multiple systems and poor digital capabilities in some organisations. Across much of the social care sector, challenges are often underpinned by a lack of investment.

Was the commitment met overall (or on track)?

Rating: Inadequate

There has been some progress on delivery of this commitment. The Department stated that success of the ShCR Programme meant that 100% of ICS had a basic ShCR at the end of financial year 2021/22.[157] The Department provided figures to show that in October 2022, 85.5% of NHS trusts and primary care networks (PCNSs) were connected to their regional ShCR enabling it to meet the basic standard of functionality (MVS 1.0) required of a basic ShCR. The Department stated that trusts that were not connected typically had a low level of digital maturity.

The Department also provided information showing the growth in connectivity from March 2021 to October 2022 by region. By October 2022 six of the 13 regions had 100% of trusts and PCNs connected. Of the remaining seven regions: 1SW (South West) and OneLondon (London) had over 90% of trusts and PCNs connected; EMOC (East Midlands) and S2C (North West) had over 80% connected; YHCR (Yorkshire and Humber), WMOC (West Midlands), and East Accord (East of England) had over 60% of trusts and PCNs connected.[158]

This progress was also recognised by stakeholders who provided written evidence to our evaluation. NHS Providers stated that most ICSs now have some form of ShCR and that there has been an expansion of existing ShCRs, connecting more partner organisations within a system.[159] The PRSB recognised the progress in rolling out a basic ShCR,[160] and many other stakeholders noted improvement on delivering integrated care records in some areas, particularly those with good digital capabilities.[161] The Department stated that in

155 Infrastructure and Projects Authority and Cabinet Office "DHSC_Government_Major_Projects_Portfolio_Data_March_2022.ods (live.com)", accessed 200922.
156 NHS England Transformation Directorate, "A celebration of progress in shared care records", accessed 130922.
157 Department of Health and Social Care (DHS0042)
158 Supplementary evidence provided by the Department of Health and Social Care (DHS0056)
159 NHS Providers (DHS0026)
160 Professional Record Standards Body (DHS0028)
161 National Community Pharmacy IT Group (DHS0018), Northumbria Healthcare NHS Foundation Trust (DHS0035), GS1 UK (DHS0027), Nuffield Trust (DHS0032), PAGB (DHS0013), Dr Kathrin Cresswell and Prof Robin Williams (DHS0001)

addition to the ShCR, the Summary Care Record now typically includes significantly more information since the requirement for adding information was changed from opt-in to opt-out during the pandemic.[162]

Despite this progress, several stakeholders reported significant problems which they believed precluded the delivery of the commitment for all patients to have an integrated care record across health and social care by 2024. Thus the target was considered too ambitious by some,[163] especially given delays and disruption caused by the Covid-19 pandemic.[164] Several stakeholders stated that the commitment lacked clarity around specific deadlines.[165]

Problems highlighted in written evidence included:

- Lack of access to the Summary Care Record in community settings and social care.[166]
- Slow systems that don't work well in practice.[167]
- Inability of systems to work across ICS borders and lack of interoperability.[168]
- Need for greater governance including standards and ensuring security.[169]
- Lack of funding and resource including lack of staff capability.[170]

Some of these problems were recognised in the Department's response which indicated that they had changed their approach to delivering this commitment:

> *"[…] we have reviewed our approach and by March 2023 through this programme, we will: Complete planning work for national interoperability; Share knowledge to increase uptake and adoption of Shared Care Record solutions within ICSs; Provide assurance that information governance recommendations have been implemented. […] rather than funding a stand-alone programme on Shared Care Records, we will deliver the same ambition through embedding a collaborative approach into our biggest programme—Digitising the Frontline. This collaboration will be more efficient with a broad focus on digitising, driving adoption of electronic health records and interoperability".*[171]

During our roundtable discussions with stakeholders we heard about significant problems with interoperability between patient record systems and with staff accessing systems. One participant told us that a new EPR had recently been implemented in the hospital where

162 Department of Health and Social Care (DHS0042)
163 Dr Kathrin Cresswell and Prof Robin Williams (DHS0001)
164 Pharmacy2U (DHS0011)
165 Chartered Society of Physiotherapy (DHS0006), The Royal College of Surgeons of Edinburgh (DHS0012), GS1 UK (DHS0027)
166 National Community Pharmacy IT Group (DHS0018), Pharmacy2U (DHS0011), Care Providers Alliance (DHS0019), Nuffield Trust (DHS0032), British Dental Association (DHS0010), Prof Sue Latter (DHS0002)
167 The Practice Management Network (DHS0036), Healthwatch England (DHS0033)
168 NHS Providers (DHS0026), The Royal College of Surgeons of Edinburgh (DHS0012), Pharmacy2U (DHS0011), Nuffield Trust (DHS0032), PAGB (DHS0013), The Practice Management Network (DHS0036), GS1 UK (DHS0027)
169 Care Providers Alliance (DHS0019), The Practice Management Network (DHS0036), Healthwatch England (DHS0033), GS1 UK (DHS0027)
170 NHS Providers (DHS0026), TSA (DHS0007)
171 Department of Health and Social Care (DHS0042)

they worked, but it was still experiencing issues due to poor interoperability between hospital and GP patient record systems:

> *"[…] the way that information travels and whom it's accessible to also very, very difficult. And within hospital as well, how we are furnished with what we are best to use to get information? I know our hospital has access to EMIS Web which a lot of our local GP surgeries use. But I don't honestly know how much we train many of our staff to use it, certainly in an inpatient situation, an acute situation, so that they can access relevant information, or even how many people do have access. And that's on top of all the other training, induction, different systems that they have to learn about using. Because unfortunately that system doesn't directly talk to our main EPR [electronic patient record] system which is used around the hospital.*
>
> *Facilitator: Even your new one [system]?*
>
> *Not even the brand new one. We're having constant, I was in meetings this morning about the different systems that talk to each other and what we expected from them and now how they are expected not to work. It's very, very difficult and it never, never, ever seems to go smoothly."*[172]

An anaesthetist who participated in the roundtable discussions explained how they had to cancel a patient's operation because of poor interoperability between patient record systems:

> *"And yet yesterday afternoon with my anaesthetic list, I cancelled a patient because the patient said they had an unknown anaesthetic reaction and ended up in intensive care in the neighbouring hospital. But during daytime hours, there's no way I could access that data. Because they don't have an electronic patient record which is of any use and there's no connection between the two."*[173]

Another roundtable participant described how difficult it would be to reach the commitment because of increased costs due to inflation, the varying digital maturity across ICSs and varying digital maturity between organisations within an ICS. They concluded that a national target was "arbitrary" and "unhelpful":

> *"[…] that target of achieving an EPR for every trust by the end of, I think is by the end of 2023, is going to be hugely challenging because of the rising costs, because of the different interoperability and the different systems within ICS's and then between ICS's that we're noticing. And also quite interestingly, the other thing I just wanted to say, it's really important to just note that every ICS is at a different level of digital maturity. So you will see that some ICS will be up and running and have systems that talk to each other within primary, secondary care, mental health as well. However, not every ICS is at that digital maturity stage. So often to have a target, an arbitrary target like that can be quite unhelpful."*[174]

172 Stakeholder roundtable
173 Stakeholder roundtable
174 Stakeholder roundtable

The number of different systems across areas was also described by a participant in another roundtable, who described the implementation of a new EPR system as "very painful":

> *"We do have an electronic patient record, but at the moment it's a lot of written notes scanned in, which is actually the worst of all worlds, and you never find anything. But I agree the GP records work really well and our systems integrate with the GP records as well, which is great. And I know that there are some places, I think in Cambridge they've got a very good EPR which works really well and can integrate Great Ormond St".*[175]

Within social care, a participant in our roundtable discussions described how working across geographic boundaries and across sector boundaries with different funding made implementation of an integrated care record that links social care and health data difficult:

> *"[…] it has been a struggle given that we work across the UK and Scotland as well, so there's a whole different set of things going on there, but we've really struggled to engage effectively and we've done it on all sorts of levels. I've had directors join local boards in terms of their advisory roles and that sort of thing. We've gone along to all the conferences, as I said before, we've done an awful lot of communication from our side to say we're here, we want to integrate, we're not scared of it. But we want to integrate for the person we support and what it means for them, and that's actually quite hard in a narrative sense and in a conversational sense to do that. And sometimes it's even more difficult to do that from the perspective of saying can we have an interoperable system, one that shares. And I said at the start, there is a little fear I think which says we may be asked for data or certain flows of money may require the sharing of data, which would be very useful from a clinical perspective, but may not necessarily help us in social care."*[176]

We rated progress on delivery of a commitment to create and roll out national integrated health and care records to all people as 'inadequate'. Despite there being some progress on delivery of a basic shared care record, the ambition to deliver population-wide integrated health and care record has not been achieved. Instead a limited and significantly less useful form of shared care record has been adopted as a near-term solution. There has therefore been a lack of overall progress on delivery of this commitment to date, particularly with regards the consistent integration of health records with social care, and especially in parts of the country with poorer digital capabilities. The evidence indicates that the Government is unlikely to be able to reach the original target.

Was the commitment effectively funded (or resourced)?

Rating: Inadequate

In 2016–17 the Global Digital Exemplar programme provided funding for the most digitally advanced trusts to implement a LHCR and share their learning with slightly less advanced trusts (Fast Followers). According to an independent evaluation, this approach:

> *"[…] successfully advanced digitally enabled service transformation in a select 51 (18%) of 287 provider organisations by coupling modest financial support (up to £10 million per organisation) with governance structures to deliver*

175 Stakeholder roundtable
176 Stakeholder roundtable

> *leadership and clinical engagement feared toward transformation outcomes linked to international benchmarks".*[177]

This approach of prioritising funding for highly performing trusts has now been reversed, with the Department explaining that national funding for the roll-out of the basic ShCR was prioritised for the least digitally mature ICSs, although ICSs still needed to bid for a proportion of £50m national capital funding and provide their own local funding to meet ongoing operational costs.[178] Among evidence from stakeholders, PRSB recognised the additional funding that had been provided to support ICSs to meet the basic ShCR,[179] and evidence from GS1 UK (a not-for-profit organisation that creates identification standards) and the PRSB also indicated that the Government had provided funding to develop national standards to aid interoperability and support the delivery of this commitment.[180]

In their written evidence the Department stated that Phase 2 of the ShCR programme (beyond a basic ShCR) would now have a wider focus on core digitalisation and interoperability, with the ShCR programme team being divided up following the merger of NHS Digital and NHSX into NHSE and the subsequent "rationalisation programme". ICSs will be expected to fund the roll-out of integrated electronic records with or without national funding.[181]Addressing the data security challenges associated with this commitment, the Department also stated that it had spent over £300 million in cyber resilience since 2016 and the NHS has made good progress on increasing its cyber resilience.[182]

The Department's 2022 White Paper 'People at the heart of care: adult social care reform' states that social care will also receive at least £150 million over three years for digital transformation.[183] We were not clear whether part of this funding has been allocated to shared care records.

Our rating of the funding for this commitment as 'inadequate' reflects the general agreement across the evidence we received that current funding is not sufficient given the scale of the commitment which includes staffing provision as well as technical aspects. Furthermore, funding needs to be ringfenced and sustained and more evenly spread.[184] If ICSs have to bid for funds to achieve the target set out in this commitment, there is risk that this could lead to uneven distribution of funds. We are concerned that widening the scope of the Shared Care Record programme may lead to less funding being dedicated towards meeting this commitment.

177 Kathrin Cresswell, Aziz Sheikh, Robin Williams. "Accelerating health information technology capabilities across England's National Health Service", The Lancet Digital Health, Vol 3 (2021) E758-E759.
178 Department of Health and Social Care (DHS0042)
179 Professional Record Standards Body (DHS0028)
180 GS1 UK (DHS0027), Professional Record Standards Body (DHS0028)
181 Department of Health and Social Care (DHS0042)
182 Department of Health and Social Care (DHS0042)
183 Department for Health and Social Care, People at the Heart of Care: adult social care reform, March 2022.
184 Chartered Society of Physiotherapy (DHS0006), British Dental Association (DHS0010), National Community Pharmacy IT Group (DHS0018), Care Providers Alliance (DHS0019), NHS Providers (DHS0026), GS1 UK (DHS0027), The Royal College of Surgeons of Edinburgh (DHS0012), Pharmacy2U (DHS0011), Nuffield Trust (DHS0032)

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Inadequate

Despite agreement that shared care records and interoperability can be very beneficial to patients and people in receipt of social care,[185] the evidence indicated that these benefits were not being consistently realised.[186] Several stakeholders identified disparities in coverage across geographic areas[187] as well across community health[188] and social care providers,[189] which was linked to differing digital capabilities between or within regions, and poor interoperability and lack of access to the internet in some areas.[190]

A participant during one of our stakeholder roundtable events identified geographic location as a barrier to integrated care:

> *"I think this whole question of integrated care is really poor. I live on the edge of a county and my village surgery in face is part of a surgery five miles away; the hospital is ten miles in the other direction. They do not share any data whatsoever."*[191]

The Chartered Society of Physiotherapy also described how lack of funding for organisations with poor digital capability has led to some patients having worse healthcare:

> *"Those who have attracted significant investment from previous governments, NHSE, NHSX and other central body initiatives are in a stronger position than many other trusts still reliant on legacy IT with a number remaining on paper records. This has resulted in significant inequality of access to high quality systems to support healthcare delivery".*[192]

The Department acknowledged that some patient groups including those with conditions who have to travel to receive care from specialist centres outside of the area in which they live, including patients of some clinical networks and those with rare diseases, will not receive the full benefit from the commitment although the Government states they are covered by Summary Care Records.[193] However, this does not meet the stated aim of the commitment that the roll out of integrated care records will be applicable to all people.

Some stakeholders indicated that a lack of common standards hindered interoperability. The National Community Pharmacy IT Group explained how it prevented community

185 Professional Record Standards Body (DHS0028), GS1 UK (DHS0027), The Royal College of Surgeons of Edinburgh (DHS0012), National Community Pharmacy IT Group (DHS0018)

186 Chartered Society of Physiotherapy (DHS0006), British Dental Association (DHS0010), National Community Pharmacy IT Group (DHS0018), The Practice Management Network (DHS0036), GS1 UK (DHS0027), Royal College of Physicians and Surgeons of Glasgow (DHS0014), Pharmacy2U (DHS0011), Professional Record Standards Body (DHS0028), Prof Sue Latter (DHS0002)

187 Professional Record Standards Body (DHS0028), Chartered Society of Physiotherapy (DHS0006), Pharmacy2U (DHS0011), Royal College of Physicians and Surgeons of Glasgow (DHS0014)

188 Prof Sue Latter (DHS0002), National Community Pharmacy IT Group (DHS0018), British Dental Association (DHS0010), Pharmacy2U (DHS0011),

189 TSA (DHS0007), Nuffield Trust (DHS0032), Care Providers Alliance (DHS0019)

190 NHS Providers (DHS0026) Royal College of Physicians and Surgeons of Glasgow (DHS0014)

191 Stakeholder roundtable

192 Chartered Society of Physiotherapy (DHS0006)

193 Department of Health and Social Care (DHS0042)

pharmacy onboarding with integrated care records.[194] GS1 UK stated that in contrast to the situation in NHS Wales and NHS Scotland, NHSE was not planning to implement a national inventory management system underpinned by their standards which, they argue, would improve interoperability and help progress towards an integrated care record.[195] The PRSB highlighted the need to agree priorities between ICS and EPR implementations.[196]

The impact of a lack of a standard approach to interoperability was described by a participant during our stakeholder roundtables who explained how they had set up good information sharing systems within their social care setting, yet still struggled to link with GPs because of a lack of a standardised approach across GP practices:

> *"Every system that we use can talk to other systems. […] The only thing we can't do is communicate with any NHS in the same way—we can see what's there on the GP records. We can't write things. In the past we've had access to certain systems but again, we couldn't communicate directly within system one with the GPs. No GP practice could agree on what was the way that we communicated. If you did a task within a shared system, some GPs said, oh no, we use that for internal communication. Others said yes, do it via a task and if we e-mail it either goes to one person and then the receptionists are saying, oh no, it can take us several days to get through all the emails you need us to respond more immediately than that. And we don't want you to do that. So you're just going to have to phone. But when we phone, you can't get through for hours."*[197]

Data protection and governance issues were highlighted by several stakeholders as a barrier to achieving the aim of this commitment.[198] According to the CPA the lack of adequate data protection systems across social care providers makes integration between health and social care very challenging.[199] The Practice Management Network stated that the data sharing required to achieve integration led to unaddressed digital governance problems, and also indicated that lack of staff training could be a problem in practice.[200] Healthwatch highlighted that the implementation of new NHSE Accelerated Citizens' Access programme (which enables patients to view their own GP medical records via the NHS App) could be affected by guidance from the British Medical Association to GPs[201] that they should not implement this until safe to do so.

194 National Community Pharmacy IT Group (DHS0018)
195 GS1 UK (DHS0027)
196 Professional Record Standards Body (DHS0028)
197 Stakeholder roundtable
198 The Practice Management Network (DHS0036), Care Providers Alliance (DHS0019), Healthwatch England (DHS0033), medConfidential (DHS0043), Royal College of Physicians and Surgeons of Glasgow (DHS0014)
199 Care Providers Alliance (DHS0019)
200 The Practice Management Network (DHS0036)
201 "GP practices not ready to safely roll out Citizens' Access programme should delay it, says BMA". British Medical Association Press release, 25 October 2022

On 29 November 2022 NHSE confirmed that they had asked EMIS and TPP (the two largest GP patient record systems in England) to pause the implementation for GP practices who were not ready.[202] Healthwatch warned this could lead to a postcode lottery of access to records.[203]

The Department indicated they are currently working to deliver an "ambitious 'Cyber Programme'" by 2025. This programme aims to drive down the risk in the parts of the sector carrying greatest risk and further extend our protection across the wider sector. The Department also stated that they were carrying out work to support ICSs with information governance and cyber security via the Information Governance Framework.[204]

We have rated the benefits this commitment brings to patients and people in receipt of social care as 'inadequate'. This is because despite there being general agreement of the benefits integrated care records could bring, the evidence indicates that in practice, patients were not all able to benefit from the commitment due to poor interoperability, poor digital maturity within some sectors and regions, and concerns about lack of data security.

Was it an appropriate commitment?

Rating: Good

There was general agreement from stakeholders that the principle of sharing information that underpins the commitment was appropriate.[205] It was however also clear from the evidence we received that meeting this commitment requires huge organisational and cultural changes within, and across, the health and social care sector.[206]

For example, a participant during our roundtable discussions described how not everyone working in health and care can see the benefit of digitisation. As such they may not be willing to undertake the additional effort involved to make it successful:

> *"There are an awful lot of people within our professions, within our geographical settings, who are absolutely not, and who in fact couldn't care any less about the digitisation of the NHS. And I suspect that is where we're going to have our biggest win, because we need to demonstrate to those people how digitisation of the NHS and of healthcare, social care services can benefit them as a clinician or as a patient or as a relative. And I think there's huge wins to be had in that."*[207]

Within community care, the trade association PAGB criticised the lack of focus of the commitment on ensuring pharmacists can access and write-to records.[208] Within social

202 NHS England "Update from NHS England on Accelerating Citizen Access to GP Data, 29 November 2022". Accessed 121222

203 Healthwatch England (DHS0033),

204 Department of Health and Social Care (DHS0042)

205 Association of Dental Hospitals (DHS0003), National Community Pharmacy IT Group (DHS0018), NHS Providers (DHS0026), British Association of Dermatologists (DHS0031)The Practice Management Network (DHS0036), Professional Record Standards Body (DHS0028), Healthwatch England (DHS0033), Northumbria Healthcare NHS Foundation Trust (DHS0035), The Royal College of Surgeons of Edinburgh (DHS0012), Pharmacy2U (DHS0011), Dr Kathrin Cresswell and Prof Robin Williams (DHS001)

206 Chartered Society of Physiotherapy (DHS0006), Nuffield Trust (DHS0032), Dr Kathrin Cresswell and Prof Robin Williams (DHS001)

207 Stakeholder roundtable

208 PAGB (DHS0013)

care there was criticism from the TSA (who represent tech-enabled care services) that the commitment ignores the embedding of the use of records in care processes, which is crucial for their take-up and use.[209] The CPA who highlighted the lack of inclusion of issues around cyber-security within the commitment, which they stated is a particular problem within adult social care.[210]

Further concerns about the lack of mention of data security within the commitment were emphasised by two stakeholders who described the potential pitfalls of encouraging providers to rely on one or two EPR systems. This they argued, gives EPR companies an effective monopoly and restricts the development of improvements with detrimental impacts on the progress services can make,[211] and/or could limit the sharing of patient data.[212] However, the Department stated that there was a need for a national programme to better coordinate and standardise activity and ensure national interoperability to overcome the existing situation where local systems had been seeking to establish record sharing in an ad-hoc, uncoordinated way, including inconsistent approaches to information governance. This was also recognised by the PRSB who indicated that previous Government approaches had resulted in multiple different records that aren't necessarily compatible.[213]

The Royal College of Surgeons of Edinburgh stated that the commitment was not specific enough to be able to measure its impact,[214] whereas the Chartered Society of Physiotherapy argued that the commitment risked becoming a box-ticking exercise, which did not consider the wider changes required to ensure records can improve health and care.[215] The Department responded that while the Phase 1 part of the commitment (all ICSs to have a basic Shared Care Record by April 2022) was specific and measurable, the Phase 2 part of the commitment may need further revision subject to funding and other delivery factors.[216]

We have rated the appropriateness of this commitment as 'good'. This reflects the general agreement across stakeholders we heard from that the commitment represents the understanding of the need to share information effectively across health and social care. However, the different terminology associated with the aims of this commitment, and the changing approaches to meeting it made it challenging to evaluate the Government's progress.

209 TSA (DHS0007)
210 Care Provider Alliance (DHS0019)
211 Chartered Society of Physiotherapy (DHS0006)
212 Northumbria Healthcare NHS Foundation Trust (DHS0035)
213 Professional Record Standards Body (DHS0028)
214 The Royal College of Surgeons of Edinburgh (DHS0012)
215 Chartered Society of Physiotherapy (DHS0006)
216 Department of Health and Social Care (DHS0042)

2 The health of the population

Commitment	A. Commitment Met	B. Funding and Resource	C. Impact	D. Appropriateness	Overall
Through the Data for Research and Development programme we will invest up to £200 million to transform access to and linkage of NHS health and genomic data sets for data-driven innovation and inclusive clinical trials, whose results will be critical to ensuring public confidence in data access for research and innovation purposes	Requires Improvement	Good	Requires Improvement	Good	**Requires Improvement**
NHS Digital will develop and implement a mechanism to de-identify data on collection from GP practices by September 2019	Inadequate	Inadequate	Inadequate	Good	**Inadequate**

In this section we assess Government commitments made in relation to the health of the population. Two commitments were selected for evaluation:

"Through the Data for Research and Development programme we will invest up to £200 million to transform access to and linkage of NHS health and genomic data sets for data-driven innovation and inclusive clinical trials, whose results will be critical to ensuring public confidence in data access for research and innovation purposes"

"NHS Digital will develop and implement a mechanism to de-identify data on collection from GP practices by September 2019"

These commitments are about ensuring patient data can be gathered and used for research and innovation in a safe and secure way that is trusted by patients, the public and healthcare professionals.

The first commitment sets out the Government's target to invest up to £200m in NHS data infrastructure. The stated aims of the Data for Research and Development (R&D) programme were set out in 'Data Saves Lives' in June 2022 as:

> *"[…] to make research-ready data available to researchers in a streamlined, secure and privacy-protected way, through trusted research environments at national and regional level.*
>
> *They will support a vibrant hub of genomics, imaging, pathology, and citizen generated data, where AI-enabled tools and technologies can be deployed. We will put our policy and governance framework for secure data environments into practice – making life-saving data more securely and quickly accessible and linkable, while offering the highest levels of privacy.*
>
> *The programme will put the NHS in control and generate public confidence in widespread data-driven innovation while making the UK a world-leading destination for industry to develop cutting-edge life sciences research and development."*[217]

Part of the motivation behind this commitment was the success of projects using patient data for research and innovation at speed during the pandemic. For example Professor Sir Martin Landray's RECOVERY trial of Covid-19 treatments used GP and hospital patient data in a large clinical trial which identified dexamethasone as one of the first effective Covid-19 treatments.[218] Another landmark study early in the Covid-19 pandemic was that led by Professor Ben Goldacre. He was able to identify patient groups at increased risk of death from Covid-19 by using the OpenSAFELY platform to analyse GP patient data from two electronic healthcare record systems that cover most of the population in England.[219]

The context of this commitment refers to "Trusted Research Environments and digital clinical trial services".[220] The NHS DigiTrials Service is an NHS Digital capability launched in October 2019 to provide access to patient data in a safe and secure way for researchers to use in clinical trials.[221] Professor Landray, as quoted on the NHS Digital website, concluded that:

> *"[…] NHS DigiTrials made the scale and speed of the RECOVERY trial possible" by providing the research team with "[…] centrally collected and curated data on a weekly basis to track progress and outcomes of participants".*[222]

217 Department of Health and Social Care, Data saves lives: reshaping health and social care with data, June 2022.

218 Leon Peto, Peter Horby, Martin Landray. 'Establishing COVID-19 trials at scale and pace: Experience from the RECOVERY trial' Advances in Biological Regulation. Vol 86 (2022)

219 Elizabeth J Williamson et al. 'Factors associated with COVID-19-related death using OpenSAFELY'. Nature, Vol 584 (2020), pp430–436

220 '£260 million to boost healthcare research and manufacturing' BEIS and DHSC press release 2 March 2022

221 NHS Digital "NHS DigiTrials" accessed 131222

222 NHS England Transformation Directorate, "NHS DigiTrials enables improved treatments to transform lives - Improving care through research and innovation" accessed 131222 https://transform.england.nhs.uk/key-tools-and-info/data-saves-lives/improving-care-through-research-and-innovation/nhs-digitrials-enables-improved-treatments-to-transform-lives/

A Trusted Research Environment (TRE), also known as a Data Safe Haven, is a computing environment in which approved researchers can access and analyse datasets in a secure and strictly controlled way.[223] Many organisations, including the Office for National Statistics[224] use TREs to store and manage access to data for research. In 2022 the Goldacre Review commissioned by the Government highlighted the risks and inefficiencies of having data spread around multiple small projects and recommended that small organisation-specific TREs be consolidated into a few TREs within a federated network.[225]

In June 2022, following the Goldacre Review, the then Secretary of State Rt Hon Sajid Javid published the policy paper 'Data Saves Lives: Reshaping Health and Social Care with Data' which established the aims for the Data for Research and Development programme. It set out the importance of data storage and access platforms named Secure Data Environments (SDEs), of which TREs are a subset, for managing patient data.[226] The policy paper stated that SDEs would be the default route for NHS and adult social care organisations to provide access to their de-identified data for research and analysis. The policy paper also stated that the General Practice Data for Planning and Research (GPDPR) programme which aims to provide a way of collecting data for planning and research will be a flagship example of a service where data will only be accessible via an SDE.[227]

We examine progress on delivery of de-identified GP data for planning and research under the second commitment within this policy area. Current efforts to collect GP data for these purposes fall under the GPDPR programme, however this commitment was made in 2017 following the closure in 2016 of care.data (a national database of patients' medical records) because of a lack of public and provider confidence over confidentiality and business use, weak governance processes and unclear opt-out mechanisms combined with a poor communications strategy.[228] The commitment was set out in the Government's 2017 response[229] to the 2016 National Data Guardian's Report which set out the need to develop data security standards and a new consent/opt-out model to increase the public's trust that the NHS was using and looking after their data appropriately.[230]

In 2018 software company Privatar was contracted to de-identify personal health data on collection from GP practices,[231] but it has not yet been deployed.[232] GPDPR was launched by NHS Digital in Spring 2021 to provide a way of collecting data for planning and research that was "trustworthy, capable and standardised but consistently controlled",[233] and would replace the General Practice Extraction Service (GPES),[234] which had been criticised by the National Audit Office in 2015.[235] Data were due to start being collected under GPDPR from 1 September 2021 but there were widespread concerns from patients and health professionals, including the British Medical Association and the Royal College of General

223 Health Data Research UK, "What is a TRE" accessed 131222
224 Health Data Research UK, "The Secure Research Service: The UK's largest Trusted Research Environment (TRE)" accessed 131222
225 Department for Health and Social Care, A plan for digital health and social care, June 2022.
226 NHS Digital "Secure Data Environment Service" accessed 091022
227 Department of Health and Social Care, Data saves lives: reshaping health and social care with data, June 2022.
228 Fiona Godlee 'What can we salvage from care.data?' The BMJ, Vol 354 (2016)
229 Department of Health and Social Care, Your Data: Better Security, Better Choice, Better Care, July 2017.
230 Dame Fiona Caldicott, National Data Guardian for Health and Care Progress Report: January 2018-March 2019, August 2019.
231 "NHS Digital leading the protection of patient data" NHS Digital press release 29 June 2018
232 NHS Digital (DHS0041)
233 NHS Digital "Planning and research: The future with GP data" accessed 131222
234 NHS Digital "General Practice Extraction Service" accessed 131222
235 National Audit Office "General Practice Extraction Service – Investigation" Session 2015–16, HC 265

Practitioners,[236] which led to a significant overall increase in opt-outs.[237]

The Government paused the GPDPR programme in June 2021, confirming they would start uploading data via GPDPR only when the following conditions were met: the ability to delete data if patients choose to opt-out of sharing their GP data with NHS Digital; the backlog of opt-outs has been fully cleared; a TRE has been developed and implemented in NHS Digital; patients have been made more aware of the scheme through a campaign of engagement and communication.[238]

A year later in June 2022 the Government acknowledged that:

> *"We cannot take the trust of the public for granted. In the summer of 2021 we made a mistake and did not do enough to explain the improvements needed to the way we collect general practice data … Not only did we insufficiently explain, we also did not listen and engage well enough. This led to confusion and anxiety, and created a perception that we were willing to press ahead regardless."*[239]

They went on to say they would re-introduce GPDPR as a flagship example of a service where data is only available via an SDE.[240] Meanwhile NHS Surveys from May and July 2022 found widespread lack of knowledge about GPDPR among both patients[241] and GPs.[242]

Commitment 1: Data for research and development

Overall Commitment Rating and Overview of Data for Research and Development: Requires Improvement

This commitment sets out the Government's target to invest up to £200m in NHS data infrastructure. It was announced in a press release on 2 March 2022, launched in April 2022, and has a completion deadline in March 2025.[243] According to the press release, this commitment will enable researchers to:

> *"[…] better access NHS data through Trusted Research Environments and digital clinical trial services. This will make crucial data more securely and quickly available for research, while offering the highest levels of privacy."*[244]

Overall, we gave this commitment a rating of 'requires improvement'. Despite evidence of good progress in the programme's initial phase, stakeholders had limited confidence in the ability of successive governments to deliver on public trust commitments for secondary

236 Royal College of General Practitioners and the British Medical Association, "General Practice Data for Planning and Research", July 2021.
237 ABPI (The Association of British Pharmaceutical Industry)(DHS0039)
238 NHS Digital "GP Data for Planning and Research: Letter from Parliamentary Under Secretary of State for Health and Social Care to general practices in England - 19 July 2021" accessed 131222
239 Department of Health and Social Care, Data Saves Lives: reshaping health and social care with data, June 2022.
240 Department of Health and Social Care, Data Saves Lives: reshaping health and social care with data, June 2022.
241 NHS Digital, "Listening phase report - General Practice Data for Planning and Research (GPDPR)" accessed 131222; NHS "Public survey summary report - General Practice Data for Planning and Research (GPDPR)" accessed 131222
242 NHS Digital "GP staff survey summary report - General Practice Data for Planning and Research (GPDPR)" accessed 131222
243 Department of Health and Social Care (DHS0042)
244 '£260 million to boost healthcare research and manufacturing' BEIS and DHSC press release 2 March 2022

uses of health data and, by implication, to meet the necessary conditions over the next three years.

Furthermore, we saw limited evidence that the complex interdependencies amongst the digital transformation initiatives upon which successful delivery of this commitment depends (including risk mitigation measures and overall programme alignment) are under adequate programme control measures. In addition, the overall programme deliverables are not widely understood by stakeholders and many do not perceive a coordinated timetable for benefits delivery or a firm schedule.

Finally, we could not identify any coherent contingency plans to deliver this programme in light of obvious potential risks to the allocated budget arising from the widespread budget pressures on the NHS more generally.

Was the commitment met overall (or on track)?

Rating: Requires improvement

In this section we provide a summary of the evidence we have received relating to whether this commitment was on track to be met overall. The commitment to invest up to £200m in the NHS data infrastructure was announced on 2 March 2022, launched in April 2022, and would be released in tranches up to March 2025.[245] The policy paper 'Data Saves Lives', commits to December 2023 as the deadline by which the Government will:

> *"[…] create at-scale datasets that bring together the different types of health data to develop new tools for prevention, diagnostics and clinical decision-support through the Data for Research and Development programme" and "bring together genomics data, and work with NHSEI to ensure genomic data generated through clinical care is fed back into patients' records".*[246]

There is evidence of progress in the programme's first nine months to December 2022. Investment has been prioritised in relation to the NHS Digital SDE[247] and the NHS DigiTrials expansion.[248] SDE policy guidelines have been developed[249] and in December 2022 NHSE announced that £13.5m funding for sub-national SDEs to cover the whole of England had been awarded to teams representing 11 regions.[250]

In their written evidence to us the Nuffield Trust said that the progress made so far on the NHS Digital SDE was a valuable step.[251] The Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) pointed to SDE guidance which has been published, and stated that institutions seem to be aligning strategies on implementation.[252] NHS Digital indicated the SDE was being tested from Autumn 2022 and fully operational by the end of March 2023.[253] The ABPI (The Association of British Pharmaceutical Industry) referred to

245 Department of Health and Social Care (DHS0042)
246 Department of Health and Social Care, Data Saves Lives: reshaping health and social care with data, June 2022.
247 NHS Digital "Secure Data Environment Service" accessed 091022
248 Department of Health and Social Care (DHS0042)
249 Department of Health and Social Care 'Secure data environment for NHS health and social care data - policy guidelines' September 2022.
250 NHS England, "Investing in the future of health research: secure, accessible and life saving" accessed 090123
251 Nuffield Trust (DHS0032)
252 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021)
253 NHS Digital (DHS0041)

rapid progress having been made in these areas, notwithstanding the possible disruption as NHS Digital, NHSX and NHSE are merged in to one organisation.[254]

Most stakeholders who provided written evidence were, however, unclear as to whether the specific objectives of the programme had been achieved or were on track to be achieved.[255] The Department acknowledged delays in progress due to financial and operational factors.[256]

We are not confident that this commitment will be met in the next three years. This is principally due to the risk of delays caused by it being dependent on other major NHS digital transformation programmes, progress on which are at risk.

As described in more detail below, amongst the most important interconnected dependencies are:

- inadequate engagement with the public and people in receipt of social care,
- complex and unclear governance,
- inadequate progress on system-wide interoperability,
- lack of clarity regarding the relationship between the Federated Data Platform (FDP) which will support population health management and operational planning and the Data for Research and Development programme, and
- resourcing challenges arising from the merger of NHSD, NHSX and NHSE.

Several stakeholders indicated that engagement and communication have not been sufficient to generate public trust and confidence in the secure use of the data, its value and purpose, and to build confidence in the programme's ability to enhance accessibility and transparency.[257] While 'Data Saves Lives' commits to a programme of engagement,[258] there is continued debate as to its effectiveness and sufficiency.[259]

The APBI emphasised the importance of conducting proper consultation with researchers and industry at all stages to ensure that the future use of data from all regions would be fully optimised by all researchers.[260] WEISS similarly said engagement with researchers and other beneficiaries was needed in the plans for deployment of SDEs.[261] Cisco raised data security, skills and capabilities as possible concerns.[262] In addition, medConfidential expressed concerns about the re-positioning of TREs as SDEs which could imply a lower standard of governance, independence and transparency compared to the current TRE 'gold standard', thus risking a further setback in public confidence.[263]

254 ABPI (The Association of British Pharmaceutical Industry)(DHS0039)
255 Northumbria Healthcare NHS Foundation Trust (DHS0035), Pharmacy2U (DHS0011), Cisco (DHS0037), Royal College of Physicians and Surgeons of Glasgow (DHS0014), Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021)
256 Department of Health and Social Care (DHS0042)
257 Nuffield Trust (DHS0032), Cisco (DHS0037)
258 Department of Health and Social Care, Data Saves Lives: reshaping health and social care with data, June 2022.
259 For example: UK Parliament, NHS Databases: questions for DHSC, July 2022, which confirms NHSE has no plans to conduct a public consultation on the FDP before invitation to tender is published.
260 ABPI (The Association of British Pharmaceutical Industry)(DHS0039)
261 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021)
262 Cisco (DHS0037)
263 medConfidential (DHS0043)

The precise governance arrangements for the Data for Research and Development programme are not clear and stakeholders raised concerns around how the programme fits with other governance structures such as the Data Saves Lives Advisory Group, GPDPR and the FDP.[264] Several stakeholders also raised concerns around the progress of the national interoperability programme upon which this commitment is dependent.[265] WEISS identified practical barriers to achieving the commitment which include the fragmented approach to patient record platform deployment and financial constraints flowing from legacy IT systems across Trusts.[266] We are not clear how national, system-wide interoperability will be achieved, given evidence of a systems incompatibility between health and social care; primary and secondary care; and central and sub-national plans.[267]

There is a lack of clarity regarding the relationship between the Data for Research and Development programme and the FDP. In April 2022 the Government launched a £240 million tender for an FDP, which would allow each ICS to manage data for patient care and planning within its own TRE or SDE within a national federated system.[268] The FDP will be related to the Covid-19 data platform established during the Covid-19 pandemic.[269] Both the FDP and the Data for Research and Development programmes will use SDEs. There is current opacity as to possible gaps and overlap of use cases, how far governance arrangements will be shared or distinct and where priorities lie between the programmes given limited resources. In their written evidence to us, medConfidential questioned the impact on public confidence in the Data for Research and Development programme if FDP procurement proves controversial.[270]

The ABPI indicated that the planned merger of NHS Digital and NHSX into NHSE, including plans to significantly downsize the combined workforce at a time when the complexity of the digital transformation portfolio is increasing[271] poses a challenge to the delivery of the SDE's, particularly if there is insufficient capacity or skills to deliver the critical federated regional TRE infrastructure.[272] The operational resilience of the current data access environment is also in question; researchers are expressing concern about increasing delays when accessing data, which may be exacerbated by the organisational and resource challenges of the merger.

Additionally, there is an inter-dependence between the two commitments we are evaluating within this policy area. Delivery on the commitment regarding GP data will significantly enhance the effectiveness of the commitment regarding the Data for Research and Development programme; however, as described below, we have rated progress on delivery of the GP data commitment as 'inadequate'.

In conclusion, while there is evidence of progress in 2022, we are not convinced that this commitment is on track to be met over the next three years. Unless and until plans are put

264 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021); The Practice Management Network (DHS0036)
265 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021), Digital Healthcare Council (DHS0022), techUK (DHS0008), National Community Pharmacy IT Group (DHS0018)
266 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021)
267 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021); techUK (DHS0008); CASPA - Care Software Providers Association (DHS0017)
268 UK Government Find a Tender "NHS Federated Data Platform" accessed 131222
269 NHS England "NHS COVID-19 Data Store" accessed 131222
270 medConfidential (DHS0043)
271 Health Services Journal "6,000-plus jobs to be cut at 'new NHS England" accessed 310123
272 ABPI (The Association of British Pharmaceutical Industry)(DHS0039)

in place to mitigate the risks and make progress on the unresolved issues of establishing public trust, capability and consistency of policy direction, coherent governance arrangements and adequate resourcing, we conclude that the Government's progress on meeting this commitment 'requires improvement'.

Was the commitment effectively funded (or resourced)?

Rating: Good

In evaluating whether the commitment has been effectively funded or resourced, we acknowledge that the programme is still in its infancy, and that the commitment states that "up to" £200m will be allocated. The projected spend for this commitment is divided between different parts of Government. £160m through NHSE, £30m through BEIS and £10m through DHSC, subject to HM Treasury approval. This funding is allocated for research infrastructure.[273]

To date, £13.5 million of this £200 million has been released, however we have not seen the timescale for releasing the remaining £186.5 million. We agree that if these funds are delivered as promised over the next three years, it will have a significant positive impact on delivering this commitment.

The Department stated that:

> *"[…] funding has been agreed with NHS Digital for the NHS Digital Secure Data Environment (SDE) and the NHS DigiTrials service, with a positive response to the funding strategy for Sub National SDEs from localities seeking to bid."*[274]

Several stakeholders commented on the delivery of this commitment being at risk due to the uncoordinated delivery, underfunding and/or the de-prioritisation of other national programmes (such as GPDPR), which will limit the full interoperability of connected data and systems on which the Data for Research and Development programme depends.[275]

The ABPI contended that the establishment of an interoperable national infrastructure that meets research needs and maximises the potential of NHS DigiTrials will require additional investment over and beyond the funding so far allocated.[276] The Chartered Society of Physiotherapy told us that there is a need for greater and more sustained resourcing across systems, training, and workforce in order to deliver the data capability desired to support healthcare and achieve this commitment.[277] Zoom UK&I identified a lack of clear budgets and assurances that all providers have the necessary security accreditations, as key risks to the programme.[278]

Poor public and provider confidence also poses a real risk to the Data for Research and Development programme. The Department recognises the importance of patient and public engagement and involvement, and they state they have allocated significant

273 Department of Health and Social Care (DHS0042)
274 Department of Health and Social Care (DHS0042)
275 Chartered Society of Physiotherapy (DHS0006), SAS Institute (DHS0040), Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021)
276 ABPI (The Association of British Pharmaceutical Industry)(DHS0039)
277 Chartered Society of Physiotherapy (DHS0006)
278 Zoom UK&I (DHS0015)

resources to support a wider public conversation, including investment to engage with providers, industry and medical research charities.[279] However, evidence from several stakeholders demonstrated tension between the urgent need for the programme to deliver benefits and the preparatory requirement to engage with and address both public and provider concerns.[280]

Given the potential for this commitment to deliver positive benefits if the funds promised are delivered over the next three years, we have rated the funding for this commitment as 'good'.

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Requires improvement

Evidence we received from a range of stakeholders indicated support for the aims of the Data for Research and Development programme and its potential to impact positively on patients and people in receipt of social care.[281] While recognising the programme is at an early phase, two stakeholders questioned whether the 'front-line' is yet seeing any benefits. We heard from the Chartered Society of Physiotherapy that many community services do not submit to regional or national datasets.[282]

The Department acknowledged the need to enhance representation of under-served communities in research, and to ensure public and provider confidence in access to health data and involvement in clinical trials.[283] As set out above, failures in this regard would limit the benefits that the programme might bring to patients and people in receipt of social care. Without effective engagement, there is a risk that people in certain communities may be more likely to opt-out or not participate in research, thus exacerbating biases in the data and limiting its usefulness in research and clinical trials.[284]

The infrastructure supported by the Data for Research and Development programme is necessary and important, but it must be matched with effective patient and public involvement, provider buy-in, effective governance and national interoperability. In conclusion, there is potential for this commitment to have a positive impact on patients and people in receipt of care. However, the risks associated with the co-dependencies outlined previously in this chapter leads us to conclude that this aspect of the commitment 'requires improvement'.

279 Department of Health and Social Care (DHS0042)

280 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021), Royal College of Physicians and Surgeons of Glasgow (DHS0014), Nuffield Trust (DHS0032), Dr Kathrin Cresswell and Prof Robin Williams (DHS001)

281 The British Association of Dermatologists (DHS0031), NHS Providers (DHS0026), Pharmacy2U (DHS0011), Royal College of Physicians and Surgeons of Glasgow (DHS0014)

282 Chartered Society of Physiotherapy (DHS0006),

283 Department of Health and Social Care (DHS0042)

284 National Institute for Health and Care Research "Improving inclusion of under-served groups in clinical research: Guidance from INCLUDE project" accessed 151222

Was it an appropriate commitment?

Rating: Good

Stakeholders were generally very supportive of the Data for Research and Development aims set out in 'Data Saves Lives',[285] and regarding the value of building on the lessons learnt during Covid-19.[286] The Department emphasised the potential benefits of the programme for the public, workforce, researchers and industry.

The Department estimates, on the basis of discovery work and seed-funded projects, that a fully implemented and supported programme could generate up to £1.7bn over 10 years. This includes:

- patient benefits of over £380m due to improved diagnosis and treatment,
- £545m in NHS benefits due to reduced treatment costs,
- reduced readmissions and reduced imaging spend,
- nearly £650m in clinical trial benefits, and
- over £139m in industrial growth.[287]

Realisation of the potential benefits require delivery of other commitments made in 'Data Saves Lives'. This includes the development of necessary governance infrastructure, the implementation of national interoperability, and gaining public and provider trust in the use of data. The widely publicised issues relating to care.data and GPDPR (described in more detail in the next section of this chapter) may impact on public and provider trust and support for the Data for Research and Development programme, and for future health data initiatives.

During our stakeholder roundtable, participants recognised the potential and value of patient data being able to be used for patient benefit. However, participants also highlighted the importance in being able to reassure patients about the use and safety of their data. One participant stated:

> *"I was just going to say—again—going back to Covid how much big data was of benefit and how the UK really showed itself in a good light and how data was used. National data in terms of patients who were infected, who ended up in hospital. And other examples of the critical care system, the ICNARC [Intensive Care National Audit and Research Centre] system, the data that was gathered from that and how it was used, I don't work in critical care, but I'm aware of how much of a difference it made and what it made in terms of making good decisions for patients during that time. And in a very short space of time how well it was put together to make those decisions. And that's big data being used and often—not saying rightly or wrongly—but often the patients would not have been in the slightest bit aware, most patients wouldn't know what ICNARC is even if they've been on a critical care*

285 The British Association of Dermatologists (DHS0031), NHS Providers (DHS0026), Pharmacy2U (DHS0011), Royal College of Physicians and Surgeons of Glasgow (DHS0014)

286 Nuffield Trust (DHS0032)

287 Department of Health and Social Care (DHS0042)

> *environment for months. But yes, it does do very well. But I think the seeds of trust or distrust may have been sown a bit early with the big data aspects for the NHS more widely of sharing data. There were rumours early on about how that data might be misused from a patient perspective, actually with insurance companies, how if you tried to find a private medical insurance in a few years and yet it was on your record that you have some kind of pre-existing condition… and unfortunately, I think there's already enough rumour around that it has put people off, and would need considerable proof that those kind of things would be protected against before some people might change their minds about joining such a system."*[288]

This commitment has the potential to deliver substantive benefits for patients and people in receipt of social care. We therefore rated the appropriateness of this commitment as 'good'.

Commitment 2: De-identification of General Practice data

Overall Commitment Rating and Overview of the de-identification of General Practice data: Inadequate

We selected this commitment to evaluate progress on the GPDPR programme to collect GP patient data for research and planning, and this was acknowledged by the Department in their written evidence to us.[289]

In July 2016 the National Data Guardian for Health and Care Review of Data Security, Consent and Opt-Outs identified consent and data security as two major issues when collecting patient data.[290] The National Data Opt-Out was introduced in 2018 on the recommendation of the National Data Guardian. It allows patients to opt-out of having any of their health data shared for research and planning purposes (except in some circumstances),[291] and can be completed via the NHS App or the NHS website.[292]

The National Data Opt-Out was intended to replace the previous system which had two types of opt-out: Type 1 which prevented the sharing of patient data outside of their GP practice, and Type 2 which was broadly similar to the National Opt-Out.[293] However following a consultation, the Type 1 Opt-Out remained, and according to an article published in the British Medical Journal (BMJ), 1.5 million people completed a Type 1 Opt-Out for GDPDR after its launch in 2021.[294] One concern that has prompted patients to opt-out is how data will be shared with individuals/organisations, including private companies, in ways they fear patients might not benefit.[295]

288 Stakeholder roundtable
289 Department of Health and Social Care (DHS0042)
290 Dame Fiona Caldicott, National Data Guardian for Health and Care Review of Data Security, Consent and Opt-Outs, July 2016.
291 Dame Fiona Caldicott, National Data Guardian for Health and Care Review of Data Security, Consent and Opt-Outs, 2016.
292 NHS England "Make your choice" accessed 131222
293 NHS Digital "2: What are national data opt-outs?" accessed 090123
294 Jacqui Wise, 'Government tried to launch patient data scheme without right safeguards, MPs are told' The BMJ, Vol 377 (2022)
295 Ben Goldacre, Better, broader, safer: using health data for research and analysis , April 2022.

With regards to data security, a rapid review of the literature by the Patient Experience Library and the Goldacre Review identified concerns that identifiable patient data would end up being inadvertently shared, due to poor data management practices and cyberattacks.[296] An example of this is the Wannacry ransomware attack in 2017 which highlighted vulnerabilities within NHS IT systems, including the use of outdated and unsupported software and historically under-funded network security systems.[297]

Overall, we consider the Government's progress on this commitment to be 'inadequate'. Although some progress has been made to implement a mechanism to de-identify data on collection from GP practices, the rating reflects challenges that are evident in the development and implementation of the broader commitment to develop GPDPR. There have been many challenges in meeting this commitment, and previous mistakes which have been acknowledged by the Department.

We were not reassured by the evidence we received that lessons have been learned from the withdrawal of GPDPR in 2021, or indeed that earlier data consent initiatives have been materially absorbed into a revised approach aimed to re-build public confidence and trust. We also found that there is limited evidence on how GPDPR will link and operate with other pillars of the Data for Research and Development programme.

Was the commitment met overall (or on track)?

Rating: Inadequate

In this section we provide a summary of the evidence we have received relating to whether this commitment was on track to be met overall. We saw evidence of ongoing confusion among the public, researchers and clinicians as to who will be permitted to access de-identified data, under what conditions and security protocols and for what purposes.[298] The Royal College of Physicians and Surgeons of Glasgow recognised GPDPR as a source of considerable professional worry and identified a lack of data protection knowledge and understanding among GP staff in particular.[299]

The Department's written evidence does not provide a timeframe for engagement and policy decisions to address these concerns,[300] and there is a risk that the same mistakes will be made again. The ABPI stated:

> *"NHS Digital launched the GPDPR in Summer 2021. Like its predecessor care. data, the campaign had to be stopped due to the major adverse publicity it attracted […] As a result of the adverse publicity associated with the GPDPR campaign, patients opting-out of sharing their health data almost doubled, going from a steady 2.75% before the campaign launch in May 2021, to over 5% of the total English patient population opting-out within a one-month period. The proportion of opt-outs has slowly increased to 5.4% today."*[301]

296 Patient experience library 'Public perceptions of NHS data use: Rapid literature review', July 2021; Ben Goldacre, Better, broader, safer: using health data for research and analysis , April 2022.

297 Department of Health and Social Care, NHS Improvement, NHS England, Lessons learned: review of the WannaCry Ransomware Cyber Attack, February 2018.

298 The Practice Management Network (DHS0036) Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021);

299 Royal College of Physicians and Surgeons of Glasgow (DHS0014)

300 Department of Health and Social Care (DHS0042)

301 ABPI (The Association of British Pharmaceutical Industry)(DHS0039)

We did not receive evidence suggesting that there is a clear plan to address low levels of confidence among diverse communities, or evidence to re-assure providers that this will not exacerbate health inequalities.[302] There is a real risk that public distrust following the withdrawal of GPDPR in 2021 and care.data in 2016 will make data sharing (potentially even for direct care purposes) more contentious than it needs to be.[303]

Given the issues outlined above we have concluded that the Government's progress towards meeting this commitment as 'inadequate'.

Was the commitment effectively funded (or resourced)?

Rating: Inadequate

We were unable to find data on the amount spent in relation to this commitment. The Department concluded that resources had been in place but did not provide further information due to programme being paused.[304] In their written submission NHS Digital stated that budget constraints were one reason the GPDPR programme has been delayed.[305]

At present the focus on GPDPR is likely to give way to the extraction of data for specific use cases, and we could not find evidence of resources available to deliver the ongoing efforts needed to re-launch the GPDPR programme.[306] As such, our rating for the funding of this commitment is 'inadequate'.

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Inadequate

With regard to the collection of de-identified GP data for research and planning, there has been no meaningful progress in 10 years. The impact on patients of the paused GPDPR programme has so far been negative, particularly in relation to damaged trust and lost opportunities to harness patient data to improve services and conduct research. Attempts to build confidence will need to be tailored to different demographic groups to achieve representative data collection for research and planning from which the public can benefit.[307]

In their written submission to us, Creswell and Williams explained that the public is generally happy to share their data under certain conditions, but the Government has failed to establish those conditions:

> *"There has, however, been a failure to establish consensus around appropriate models of data sharing with appropriate safeguards, and a failure to attend to benefits sharing, which research has found to be a key factor influencing public acceptance. We now need to establish wide public understanding and consensus of information sharing arrangements."*[308]

302 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021); NHS Race and Health Observatory (DHS0038)
303 medConfidential (DHS0043)
304 Department of Health and Social Care (DHS0042)
305 NHS Digital (DHS0041)
306 NHS Digital "GP Data for Planning and Research Check and Challenge Group Minutes of the meeting held 28th September 2022", accessed 131222
307 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021)
308 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)

A patient representative in our stakeholder roundtable discussions described how poor communication erodes trust but also erodes the quality of data collected, thus eroding the benefits data can bring to patients:

> *"[…] if there are attempts to essentially suck up everyone's data without properly telling them and all this other stuff, then we will continue to punch holes, to degrade the asset, to punch holes in the data from all those people who opt out. We're already 5,000,000 in. I don't think it should have ever got that high, but it was deliberate choices by the Department, by NHSE, that resulted in that many people opting out […] But the bottom line is you have to give people choices. These are their medical records. They have actual human rights and data protection rights, and we have the notion of medical confidentiality. Therefore, the system has to be predicated upon the individual being able to make a choice as freely as possible but being informed, not told, 'oh, you're a bad person if you opt out because it's hurting research,' which is sort of the implied message of much of the communications that goes on. But actually being informed and saying, 'well, look, we're looking to help people with a condition that maybe you don't have, but someone in your family has, and if we can look at your data, that's actually going to help us understand this whole condition more or better. And so there are some very clear and sensible things that could be said, but absent the evidence and the openness and the honesty, people are becoming less and less inclined to trust. Once you lose trust, you've lost the whole thing."*[309]

Despite surveys showing broad agreement on the potential benefits to research and planning, a positive impact cannot be achieved unless public and provider trust is established and maintained, enabling data to be appropriately accessed within a controlled environment.[310] The evidence presented to us clearly shows that there is still a long way to go before patients and people in receipt of social care can benefit from this commitment. We therefore conclude that the Government's progress in this aspect is 'inadequate'.

Was it an appropriate commitment?

Rating: Good

We heard mixed evidence from stakeholders about the appropriateness of this commitment. WEISS emphasised the importance of the commitment in ensuring good quality datasets to address health inequalities[311] and the British Association of Dermatologists agreed that de-identification of data is necessary.[312] However, there were calls from the TSA and the Practice Management to provide more detail about how the commitment will would be implemented in practice to keep data safe.[313]

This need to learn from mistakes and provide reassurance to providers and patients was echoed in our stakeholder roundtable discussions, as explained by one participant working as a GP:

309 Stakeholder roundtable
310 National Audit Office, Digital transformation in the NHS, Session 2019–2021, HC 317
311 Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DHS0021)
312 British Association of Dermatologists (DHS0031)
313 The Practice Management Network (DHS0036)

> *"There have been amazing, remarkable, fabulous things done with big data in primary care, and it is one of the most phenomenal resources of powerful research and things to help patients, and health care professionals know that. But some of our biggest concerns and alarm bells have been rung from primary care people, possibly because they've been in this space a long time. There was a big kickback last—it was May, April, May last year—a real big kickback against proposals that were going to happen for general practice data which led to the then minister Jo Churchill putting out a very strong statement of reassurance and sort of various things that would absolutely be guaranteed to happen before the moving and merging of data was done wholesale. Now, subsequently we've had, we're now on our fourth Secretary of State since then, we've got a totally different ministerial team and we've got quite a lot of new people in DHSC. And our concern is that this huge program set up our GP data then to do some very important things about using trusted research environments to hold the data so it would be the highest possible standards, are being rowed back on. And so my fear is that if we don't learn from the very near past we're going to repeat mistakes. Because the kickback that happened last spring was a really strong warning for people who very acutely remember the care.data situation—for want of another word—eight years previously, seven years previously. […] It's so important to get big data right, because the potential is massive, but if we don't have the trust of healthcare professionals and the patients, then we will be absolutely lost, it will be sunk before it goes anywhere."*[314]

The Department's written evidence states that the commitment is appropriate, while acknowledging that in order to achieve it they are working with stakeholders to find out the best way to realise it.[315]

Despite the challenges required to implement it effectively, we rate the appropriateness of this commitment as 'good', given its continued importance for the digitisation of the NHS.

314 TSA (DHS0007)
315 Department of Health and Social Care (DHS0042)

3 Cost and efficiency of care

Commitment	A. Commitment Met	B. Funding and Resource	C. Impact	D. Appropriateness	Overall
We will streamline contracting methods both to leverage NHS buying power and simplify the process of selling technology to NHS buyers (ongoing).	Requires Improvement	Requires Improvement	Requires Improvement	Requires Improvement	Requires Improvement
We will consolidate routes to market and strengthen our commercial levers for adopting standards through a new target operating model for procurement. This will include embedding standards as part of procurement frameworks, supporting NHS procurement teams to prioritise adherence to standards. Consolidation of the number of frameworks will encourage market entry and more choice in some markets, incentivising vendors to follow NHS standards	Requires improvement	Requires Improvement	Requires improvement	Requires Improvement	Requires improvement

In this section we evaluate the implementation of two of the Government's commitments which are particularly relevant to the third aspect of the Quadruple Aim: the sustainable and efficient use of resources. In this section we examine mechanisms by which innovation can lead to more cost-effective and efficient care. We called this policy area 'cost and efficiency of care' to avoid potential confusion around the word sustainability, which also has a specific meaning regarding achieving net zero.

Within this area we have looked at two commitments that will influence how the NHS buys digital products and services. This is important for cost and efficiency. Ensuring that products and services can be adopted by the NHS where they are cost-effective is an important mechanism for improving the efficiency of health services over time. If the NHS pays too much or there are barriers and delays to products or services being adopted health spending is less efficient and may cost more. We assess the processes used by the NHS to select which types of innovation to fund as well as the mechanisms for choosing which innovative partners to work with.

The commitments selected for evaluation are:

"We will streamline contracting methods both to leverage NHS buying power and simplify the process of selling technology to NHS buyers"

"We will consolidate routes to market and strengthen our commercial levers for adopting standards through a new target operating model for procurement. This will include embedding standards as part of procurement frameworks, supporting NHS procurement teams to prioritise adherence to standards. Consolidation of the number of frameworks will encourage market entry and more choice in some markets, incentivising vendors to follow NHS standards (started April 2022)"

These commitments were made in June 2022, which means that the Government has had less than a year to work on implementing them at the time of the publication of this report. The Government has not set a deadline for meeting these commitments, and we were told that work is ongoing. We have taken this into consideration in our assessment and evaluate the progress so far. Stakeholder submissions often addressed both commitments jointly, which speaks to the interconnectedness between them. We have however separated them out into two distinct commitments for the sake of this evaluation.

Both commitments were made in 'A plan for digital health and social care', published in June 2022. The first commitment was set out under the heading "Buying tech better":

> *"[…] buyers need to be sure they buy products that meet both their needs and the people they serve, as well as standards for interoperability, usability, clinical safety, cyber security and sustainability. Tech sellers need to know the standards their products must demonstrate to gain NHS and social care accreditation."*[316]

The second commitment was made under the heading "Setting standards for interoperability and architecture", which sets out the Government's vision of having a set of technical standards which could enable all relevant health data to be made available to all "legitimate" stakeholders who need it. In addition to this, the plan for digital health and social care also sets out that by having these technical standards industry partners

316 DHSC, A plan for digital health and social care (June 2022)

will know what they are expected to deliver, and ICSs how to plan their investments.[317] In their follow up submission, the Department stated:

> *"We are committed to working with key organisations and partners, such as the Accelerated Access Collaborative[318] (which has a remit to support the adoption and spread of the most promising innovations), to achieve the greatest value through a systems approach."*[319]

To support NHS and social care provider buyers and established companies, the Department states that it has sought feedback from a range of key stakeholders and assessed existing relevant public sector framework agreements. The Department endorsed a sub-set of these and identified which framework agreements offer the most suitable routes to market for which types of digital technology. This work on frameworks is ongoing.[320]

The Department has also established a bi-monthly meeting chaired by NHSE, called the Digital and Technology Commercial Council. According to the Department the Council aims to "bring together organisations in the strategic Digital and Technology Commercial space around the common purpose of delivering best value for the NHS".[321] TechUK stated in their evidence submission, that they had seen a significant change in the how the system engages with suppliers and that they welcome the more "open and collaborative approach".[322]

To support early-stage innovative companies NHSE and NICE (National Institute for Health and Care Excellence) have worked together to develop a process for assessing the value for money and clinical effectiveness for new technologies. The Department evidence also pointed to the introduction of an audit which will provide the first national list of digital solutions deployed across the NHS. The NHS Digital Health Technology Standards Audit, assessing Digital Technology Assessment Criteria (DTAC) compliance will, according to the Government:

> *"[…] enable the NHS to understand what technologies are deployed where and their scale across the NHS. This will enable a data driven approach to quantifying scalability and whether this is increasing over time."*[323]

Although health and social care are often dependent on one another, they are rarely integrated in a way which helps the patient or person in receipt of social care. CASPA (Care Software Providers Association) argued that too often when it comes to digitisation, initiatives are made looking through an "NHS first lens":

> *"Long-term sustainability of social care is dependent on having the right digital foundations in place, but as a result of the NHS-centric approach, social care has routinely had policies and digital solutions imposed upon it that do not always work in the sector's best interest."*[324]

317 DHSC, A plan for digital health and social care (June 2022)
318 The Accelerated Access Collaborative (AAC) is a partnership between the patient groups, government bodies, industry and NHS bodies, working together to seek to streamline the adoption of new innovations in healthcare.
319 Supplementary evidence provided by the Department of Health and Social Care (DHS0056)
320 Department of Health and Social Care (DHS0042)
321 Department of Health and Social Care (DHS0042)
322 techUK (DHS0008)
323 Supplementary evidence provided by the Department of Health and Social Care (DHS0056)
324 CASPA - Care Software Providers Association (DHS0017)

Similarly, the CPA stated that having NHS designed system in social care settings often leads to complex implementations.[325]

There are numerous public sector buyers across the NHS and social care, which makes the purchasing landscape quite complex. techUK argued that selling technology to the health system has been a challenge for industry for some time and is an issue which has been recognised by both the supplier community, and digital leaders within the system.[326] Procurement processes are according to Cresswell and Williams "fragmented between regional and national bodies".[327] An Accelerated Access Collaborative (AAC) board paper, written by Jacqui Rock, Chief Commercial Officer NHSE, titled 'Commercial Innovation: The Opportunity' concludes:

> *"Understanding commercial and procurement processes from local, regional, and national levels will allow for analysis, identification, and exploitation of opportunities to deliver proven innovations to clinicians and patients faster."*[328]

Northumbria Healthcare identified challenges in initiating contact between innovative companies when identifying NHS partners.[329] Similarly, the AAC board paper, from November 2022 referenced above, sets out that a key challenge to driving innovation is that the connections between commercial and procurement teams and clinicians are "ad hoc", which leads to missed opportunities to learn from each other.[330] For later stage innovative companies issues around scaling innovation seem to be a particular issue.[331] The Digital Healthcare Council argues that "highly localised purchasing decisions" results in scaling being difficult and slow, which in turn makes it difficult for NHS organisations to benefits from economics of scale.[332]

We recognise the work that the Department and NHSE have done to simplify the process of buying and selling technology to the NHS. We note that this work is ongoing and adjusting in response to feedback from the system. There is little system level data available to evaluate progress so it is difficult to measure whether NHS purchasers have in fact been able to leverage their buyer power, whether there is more market entry and more choice as a result of the Government's efforts. The evidence we have seen suggests that although there are some examples of things working well, there has been no significant progress across the system as a whole. Good practice has not yet been embedded.

Social care has not been the focus of the initiatives undertaken to date. While it is not straightforward for the Department and NHSE to improve processes for buying and selling technology to the social care sector, due to social care being essential to the overall health and care system, it requires a particular focus. We rate both these commitments as "requires improvement" overall for the reasons set out in more detail below.

325 Care Provider Alliance (DHS0019)
326 techUK (DHS0008)
327 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)
328 Accelerated Access Collaborative (AAC) Board, Commercial Innovation: The Opportunity, 23 November 2022
329 Northumbria Healthcare NHS Foundation Trust (DHS0035)
330 Accelerated Access Collaborative (AAC) Board, Commercial Innovation: The Opportunity, 23 November 2022
331 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)
332 Digital Healthcare Council (DHS0022)

Commitment 1: "We will streamline contracting methods both to leverage NHS buying power and simplify the process of selling technology to NHS buyers"

Overall Commitment Rating and Overview of streamline contracting methods: Requires improvement

This commitment sets out the Government's aim to enable NHS organisations to leverage their buying power and to make it easier for providers to sell technology to the NHS. The NHS 'Procurement Framework Strategy recommendations' guidance paper was published in March 2022. It characterises the Government's aim to "help simplify the digital and IT framework landscape, remove duplication, and reduce costs". The guidance makes reference to The Digital Category Strategy and Policy Hub, which it identifies as "first point of contact as we develop the support model further".[333] Although this progress was made ahead of the commitment being made in June 2022, it is something which will assist the Government to meet the commitment.

In June 2022 NICE launched a pilot of a new rapid Early Value Assessment (EVA) for health technology to "draw in the most promising and impactful medical technologies where the evidence base is still emerging, starting with digital products".[334] The first draft guidance on EVA was issued on 11 August 2022, and recommended a portable ECG recording device which can be used in any psychiatry setting, including at home.[335]

In their supplementary evidence to the evaluation, the Department stated:

> *"This [EVA] is currently in pilot phase, as are the NHS England post-guidance interventions including adoption support for evidence generation. There is however a significant challenge with the capacity for this type of assessment and it remains unclear whether NHS organisations will take any actions based on this guidance, including replacing products with those that may signal better value or increased efficacy."*[336]

A 2021 report by the King's Fund, titled 'Shaping the Future of Digital Technology in Health and Social Care' identified some of the challenges that can arise with the volume of new technologies and smaller providers new to the system. These challenges were ensuring the regulator can keep up with the number of new inventions, industry actors struggling to understand how they fit in to the system, and how to regulate new technology (like AI). The Kings Fund called for clarity on what is expected of industry and providers using digital products and services, as well as boundaries to be established and for rules to be communicated and understood.[337]

We note the progress that has been made to streamline contracting methods which is set out in more detail below. Many of the digital health companies we heard from still find the NHS commercial landscape overly complex and slow. The pockets of positive

333 NHS, Procurement Framework Strategy recommendations, March 2022
334 National Institute for Health and Care Excellence "NICE's Early Value Assessment for Medtech: panning for nuggets of innovation gold" accessed 101022
335 National Institute for Health and Care Excellence "NICE publishes first draft guidance from its Early Value Assessment pilot project recommending smartphone-linked ECG device" accessed 101022
336 Supplementary evidence provided by the Department for Health and Social Care (DHS0056)
337 The King's Fund, Shaping the Future of Digital Technology in Health and Social Care (April 2021)

development are not consistently implemented, and the effects are not felt across the system. This lack of consistency in delivery has therefore led us to rate this commitment as 'requires improvement' overall.

Was the commitment met overall (or on track)?

Rating: Requires improvement

In this section we provide a summary of the evidence we have received relating to whether this commitment was on track to be met overall. Some stakeholders were positive regarding the Government meeting the commitment, pointing to recent largescale procurement and assistance through national frameworks. Other stakeholders argued that partnering with the NHS to offer digital solutions was still too difficult and slow, that localised purchasing processes creates unnecessary complexity and cost, a lack of NHS procurement expertise, and that it is difficult to achieve scale.

NHS Providers told us that the commitment had been met and argued that the NHS understands its role in commercial negotiations, pointing to the procurement and roll out of Microsoft 365 for NHS organisations during the Covid-19 pandemic as an example of successful procurement and roll out at speed.[338] Northumbria NHS Foundation Trust similarly said that routes to market in the digital space are "broadly speaking very good", but stated that:

> *"We are also working to streamline our internal procurement processes, where for more complex digital projects with multiple levels of functionality the time taken to reach a decision with market engagement can take time."*[339]

Other stakeholders had a different view, and some argued that the commercial landscape was overly complex, concluding that attempts to simplify it had not generated the changes the sector called for.[340] Healthy.io, a private digital health care company, told us that they had not seen any evidence of contracting methods being streamlined.[341] The Digital Healthcare Council characterised working with NHS partners as "slow and complex" and said that the view of its members was that:

> *"[…] routes to market have not yet been consolidated and there remains considerable uncertainty about how the new procurement regime will work in practice."*[342]

The localised purchasing model of the NHS creates complexity and extra cost for suppliers, some argued. Cresswell and Williams criticised the "fragmented" structure of NHS procurement processes, stating:

> *"Procurement processes are currently fragmented between regional and national bodies, poorly coordinated and surprisingly opaque given the substantial public funds being invested (partly due to vendor calls for commercial confidentiality)."*[343]

338 NHS Providers (DHS0026)
339 Northumbria Healthcare NHS Foundation Trust (DHS0035)
340 techUK (DHS0008)
341 Healthy.io (DHS0024)
342 Digital Healthcare Council (DHS0022)
343 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)

Stakeholders also pointed to challenges in gaining entry to the NHS market. Zoom UK&I told us that there was an "overreliance on strategic suppliers", with little market entry resulting in one in every four pounds spent on procurement in recent years going to the same shortlist of suppliers.[344] Similarly, Cresswell and Williams stated that although there is an apparent goal to ensure the market is flexible, recent policies has led to a "shake out" of vendors, benefiting the larger providers.

Cresswell and Williams also stated that there is a lack of procurement expertise in the NHS which may be made worse by the regional operation of procurement.[345] The Digital Healthcare Council argued that some of its members found procurement was input- rather than outcome-focused, and argued that not enough engagement with market had been conducted to discover options for innovative solutions.[346]

Many of the stakeholders we heard from criticised the NHS's ability to scale innovation. Cisco stated that large-scale procurements spanning more than one organisation were still relatively uncommon, which could be attributable to funding mechanisms and "immature ICB structures".[347] Cresswell and Williams argued that although there had been national investments in early-stage innovation development, most of these innovations had not managed to scale. The roll out of working interventions they argued, is inhibited by an absence of effective information sharing in regard to digitalisation experience and knowledge across organisations, and a lack of evaluation expertise.[348] Healthy.io concluded:

> *"With respect to leveraging NHS buying power, we have attempted to offer an economy of scale but there remains no clear method or mechanism for doing this, and very few examples of this being done successfully. This is a missed opportunity to build excellent service provision that provides value for money for the taxpayer. A contract vehicle to enable joint purchase by multiple ICBs could significantly reduce costs."*[349]

Although there is some evidence that contracting methods are improving, a positive impact across the board is not being realised. The agility in the system shown throughout the Covid-19 pandemic was encouraging and a similar central drive is needed to ensure that all suppliers across the system can benefit from more streamlined contracting methods.

The evidence we have received indicates that providers still find the contract system slow and complex. Added challenges include the regionalisation of procurement, insufficient expertise around purchasing technology. Therefore, we conclude that Government progress towards meeting this commitment requires improvement.

344 Zoom UK&I (DHS0015)
345 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)
346 Digital Healthcare Council (DHS0022)
347 Cisco (DHS0037)
348 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)
349 Healthy.io (DHS0024)

Was the commitment effectively funded (or resourced)?

Rating: Requires improvement.

It is challenging to assess whether enough money has been allocated to this commitment, as the Department's response does not provide specific numbers or evidence to this effect, and instead states that:

> *"Specific funding arrangements were made to support the implementation of the commitment. They were made to actively manage the framework landscape for this spend category, to engage the marketplace and framework authorities. No additional funding (other than recruitment) was sought."*[350]

In their written submission to us techUK stated that there is a significant lack of clarity around where funding is coming from and at what level commissioning decisions are being made, as well as an apparent lack of consistency in approaches taken at local level, where we should instead see commonality with local flexibility.[351] Similarly the CPA stated that the commissioning and funding process in social care is "complex and lengthy since it involves not just the NHS but also Local Authorities, leading to fragmented usage of different systems".[352] Similarly the Healthcare Financial Management Association (HFMA) argued that complex structure within the NHS means that a Government commitment made nationally must then be implemented locally by numerous organisations:

> *"From a financial perspective, any associated funding is given firstly to the Department of Health and Social Care and then allocated through NHSE and integrated care boards before it gets to patient facing provider bodies. Before the funding can be spent, organisations usually have to submit a bid and/ or a business case setting out how the funds will be used and the patient benefit that will be achieved. Those bids/ business cases then have to be assessed, which increases the time it takes for funds to reach the front-line organisations that will implement these commitments."*[353]

The Chartered Society of Physiotherapy said that the purchase and contracting of new technology needs to be better funded to meet demand, stating that:

> *"At present NHS trusts chronically underfund their IT even though there are evidential benefits to be found in technology, it is regularly overlooked for funding. There are a number of examples where funding is not recurrent which is just not sustainable in digital health. Funding must be recurrent and secured over a long period if it is to attract industry".*[354]

We received very limited evidence regarding whether this commitment was adequately funded, which makes it challenging for us to evaluate it. The Department response sets out that funding was allocated to help manage the implementation of the frameworks and concludes that no additional funding was needed. However, the evidence we have received indicates that the structure for allocating funding is complex which seems to result in

350 Department of Health and Social Care (DHS0042)
351 techUK (DHS0008)
352 Care Provider Alliance (DHS0019)
353 The Healthcare Financial Management Association (HFMA) (DHS0023)
354 Chartered Society of Physiotherapy (DHS0006)

uncertainty among stakeholders on how and when they will be able to access funding. We therefore conclude that the funding arrangements for this commitment requires improvement.

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Requires Improvement

There was limited evidence in the stakeholder submissions we received on whether this commitment would deliver positive impact for patients and people in receipt of social care. As the implementation of the commitment is still ongoing, it is difficult to determine the positive effects of it. However, a system where the best digital products and tools reaches the markets and is rolled out to patients, arguably delivers positive impact for patients and people in receipt of social care.

NHS Providers said well-designed digital tools are known to improve safety, quality of care and the experience of patients and staff.[355] The British Dental Association highlighted that successful efficiency generated by technology relies on increased workforce capacity.[356] Cresswell and Williams stated that cost savings, which would ultimately free up funds to be spent elsewhere and improve service delivery "are notoriously difficult to attribute to digital technologies, as [they] … transform care and organisational processes making before-after comparisons difficult".[357]

The Department stated that:

> *"All patients will benefit from the procurement of fit for purpose, well specified digital solutions. As above, our work has been to ensure that buyers are able to access the market in a more consistent and value-added way."*[358]

During our roundtable we spoke to several stakeholders who told us how difficult it is to procure the right products and at the right speed, and the negative effect this can therefore lead to. One stakeholder said:

> *"So what we've found is, the products we use, the tablets that we do our patient care records, they're legacy items quite often. The technology is outdated for what we need today, let alone next year. And that causes real problems with that connectivity. So I know of hospitals where I'll spend time entering the details electronically only to have to print it off in the hospital so they can scan it and add it to their system."*[359]

We have seen no evidence of a systematic assessment of the impact on patients and people in receipt of social care across the NHS as a whole. We note that the Government intends to carry out an NHS Digital Health Technology Standards Audit but this has not yet begun. We also note that there seems to be a complete omission of any data collection on this in the social care sector.[360]

355 NHS Providers (DHS0026)
356 British Dental Association (DHS0010)
357 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)
358 Department of Health and Social Care (DHS0042)
359 Stakeholder roundtable
360 Department of Health and Social Care (DHS0042)

As no central assessment of impact on patients and people in receipt of social care has been carried out, and it is difficult for industry to draw direct links between their products or services and cost savings for the NHS as the buyer, it is challenging to evaluate whether this commitment delivers positive impact for patients and people in receipt of social care. However, considering that we have concluded that both progress against meeting the target and funding it requires improvement, we agree that benefit to the patient and person in receipt of social care cannot and has not been fully realised. We therefore conclude that in this respect, progress 'requires improvement'.

Was it an appropriate commitment?

Rating: Requires Improvement

Some stakeholders welcomed efforts to streamline and standardise contracting methods.[361] The CPA emphasised the need to ensure that changes keep interoperability of systems between social and health care in mind.[362] CASPA welcomed the £150m spending commitment for digitisation of the adult social care sector but expressed concern the emphasis regarding digitisation remained on the NHS.[363] The CPA further argued that the £150m fund would struggle to meet all the commitments outlined by the NHS.[364] The British Association of Dermatologists characterised the commitment as vague and wide in scope.[365] According to the Department's response, the commitment was appropriate and will provide a "meaningful improvement in efficiency benefiting the wider system."[366]

We agree that the commitment itself sets a good aspiration and is appropriate. However, as the Chartered Society of Physiotherapy stated in their submission, streamlining contracting methods would only be part of the challenge. Recurrent funding, contract length, development, innovation and many more factors also needs to be considered in order to see a measurable impact.[367] Our conclusion regarding the appropriateness of this commitment is that it 'requires improvement'.

Commitment 2: "We will consolidate routes to market and strengthen our commercial levers for adopting standards through a new target operating model for procurement. This will include embedding standards as part of procurement frameworks, supporting NHS procurement teams to prioritise adherence to standards. Consolidation of the number of frameworks will encourage market entry and more choice in some markets, incentivising vendors to follow NHS standards (started April 2022)"

Overall Commitment Rating and Overview of a new target operating model for procurement: Requires improvement

This commitment was selected for evaluation due to the importance of ensuring the best practice in regard to establishing well-functioning routes to markets, frameworks to assist

361 Pharmacy2U (DHS0011), Zoom UK&I (DHS0015)
362 Care Provider Alliance (DHS0019)
363 The Care Software Providers Association (DHS0017)
364 Care Provider Alliance (DHS0019
365 The British Association of Dermatologists (DHS0031)
366 Department of Health and Social Care (DHS0042)
367 Chartered Society of Physiotherapy (DHS0006)

both the buyer and the seller, and the agreement of standards to benefit all those involved. According to the NHS website, procurement frameworks are "the most common way of buying digital products in the NHS", and the aim of procurement frameworks is to make the buying process easier and more cost effective.[368] Procuring goods and services through a framework can help the public and third sector buyers as they assess vendors from a list of pre-approved suppliers, for which there are already agreed terms and conditions and legal protections.[369]

The Department state that the aspects of the commitment relating to frameworks has been met, and that work with framework authorities to ensure frameworks are appropriate is ongoing. The Department also stated that:

> *"Trusts are well briefed on our recommendations, and we are receiving significant feedback, clarifications requests and request for further information from buyers, which indicate the recommendations are a consideration pre-procurement in new tenders across the system."*[370]

We acknowledge the work that has been done by the Department and NHSE on national framework agreements and standards as well as improving procurement processes generally. We remain concerned, however, about how it translates into improvements on the ground for buyers and innovative companies. There remains no clear systemic method or mechanism for enabling buyers and sellers to operate at scale and we have only seen very few examples of this being done successfully. This is a missed opportunity to take advantage of innovation and to provide value for money for the taxpayer. A contract vehicle to enable joint purchase by multiple ICBs could significantly reduce costs. We therefore conclude that overall, Government progress relating to this commitment 'requires improvement'.

Was the commitment met overall (or on track)?

Rating: Requires improvement

In this section we will assess whether the commitment was met overall or was on track to be met. According to the Government's response, framework agreements are the most common way to buy digital goods in the NHS, and that these enable buyers to place orders for products without having to first run a tendering exercise as they can choose providers from a list of accredited vendors.[371] Cisco pointed out that from a supplier point of view, national frameworks were helpful as long as there is an "element of choice" within the framework.[372] According to Northumbria Healthcare NHS Foundation Trust national frameworks such as G-Cloud had been very helpful in streamlining purchasing decisions, for both software and hardware.[373]

Zoom UK&I criticised the amount of time it has taken the Government to bring forward legislation in this area, to enable wide scale procurement reform.[374] The Digital

368 NHS, Procurement Framework Strategy recommendations, March 2022
369 Crown Commercial Services, What is a framework – Procurement Essentials, 14 December 2021
370 Department of Health and Social Care (DHS0042)
371 Department of Health and Social Care (DHS0042)
372 Cisco (DHS0037)
373 Northumbria Healthcare NHS Foundation Trust (DSH0035)
374 Zoom UK&I (DHS0015)

Healthcare Council told us that the view of their members is that routes to market have not been consolidated and that there remains considerable uncertainty about how the new procurement regime will work in practice.[375] Healthy.io however told us that although the framework agreements may act as a helpful 'screen' of potential suppliers, and create a pre-approved list of suppliers, as a supplier they are "yet to see the benefit of being 'pre-approved' and this turning into commercial arrangements".[376]

According to the Department's response, 57 framework agreements across the digital and technology spend category have been assessed, and as a result currently 38 frameworks are endorsed. Fewer frameworks, the Department argues, will result in less expense for vendors.

The commitment also sets out the aspiration to ensure specific standards are made part of the NHS procurement processes encouraging those selling technology to the NHS to ensure products achieve these standards. In its response to our evaluation, the Department stated that although this was an "ongoing" commitment, it was on track to be met, and pointed to its "6 pillar approach". These "pillars" are six broad categories of what the Department characterises as "a simple yet intuitive way to sub-categorise the varied digital landscape, grouped based on commonality of requirements and functionalities and supplier market capabilities". Each category has specific overarching standards issued for it, with more detailed standards expected to be forthcoming by the end of the year.

These six categories are:

- clinical hardware;
- non-clinical hardware;
- clinical software;
- non-clinical software;
- clinical services; and
- non-clinical services

The Department has produced pillar-specific overarching standards, and directs framework authorities developing their agreements to this list of standards in order for them to "Incorporate appropriate standards when reletting expiring frameworks".[377]

While GS1 UK states progress was being made on this commitment[378] they were, along with PRSB, less positive about the results of the commitment in practice, citing a lack of consistency in planning for alignment and adopting of standards.[379] According to the PRSB, a coordinated approach to procurement frameworks is missing, which they argue results in standards being referenced and assessed differently. PRSB call for a clear policy and consistent approach, which they state that they "understand is being addressed by the commercial directorate".[380]

375 Digital Healthcare Council (DHS0022)
376 Healthy.io (DHS0024)
377 Department of Health and Social Care (DHS0042)
378 GS1 UK (DHS0027)
379 Professional Record Standards Body (DHS0028), GS1 UK (DHS0027)
380 Professional Record Standards Body (DHS0028)

Although, as set out above, the Department's response sets out that it has reduced the number of frameworks[381] and that therefore they are on track to meet this commitment, we recognise that delivering on frameworks is only one element of this commitment. The aims of encouraging market entry, more choice in some markets, and incentivising vendors to follow NHS standards do not seem to have been met. Improvements are being made to the way in which the NHS approaches framework agreements and contractual standards, but there is still work to be done. We therefore conclude that the Government progress on this commitment requires improvement.

Was the commitment effectively funded (or resourced)?

Rating: Requires improvement

We received very limited evidence in regard to the funding of this commitment, which is a cause for concern as there does not seem to be an understanding within the sector of if and how this is being monitored and evaluated by the Government. As with the previous commitment made in this area, the Department's response pointed to funding arrangements being made to support the implementation of the commitment, but did not specify how much or where the funding was allocated to:

> *"They [funding arrangements] were made to actively manage the framework landscape for this spend category, to engage the marketplace and framework authorities."*[382]

Judging from the evidence we have presented so far in this chapter of providers telling us processes are slow and complex, and that it is difficult for smaller organisations to become a provider competing with larger providers, we conclude that funding in regard to this commitment 'requires improvement'.

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Requires improvement

In this section we are presenting evidence relating to whether the commitment has had or has the potential to achieve positive impacts for patients and people in receipt of social care. The Department stated that it should have a positive impact on patients and people in receipt of social care:

> *"The vision is a simplified framework landscape, reducing costs for vendors and resource requirements for procurements, leading to better value for money/reallocation of savings. There will be indirect benefits; the work we are reporting on involves enabling buyers to better access the market for digital products and services, rather than any specific buying activity. We expect buyers will be reporting these benefits against specific areas of digital spend.*

381 Department of Health and Social Care (DHS0042)
382 Department of Health and Social Care (DHS0042)

> *All patients will benefit from the procurement of fit for purpose, well specified digital solutions. As above, our work has been to ensure that buyers are able to access the market in a more consistent and value-added way".*[383]

In their response, GS1UK provided several examples of how, if implemented properly, this commitment could provide significant savings for trusts.[384] As with the commitment 1 in this policy area, Cresswell and Williams argued that it is difficult to determine a causal link between a new digital innovation and improved care outcomes as it takes a while for the positive effects to be felt on the ground, and due to a lack of proper evaluation to highlight it.[385]

If this commitment was realised, there would be an improvement to patient care as resources could be dedicated to other parts of their care. However, we are not convinced that there is a willingness to evaluate new work in the digital sphere in this way, which makes us concerned that the absence of measurement is indicative of its not being seen as a priority. We therefore conclude that this commitment requires improvement.

Was it an appropriate commitment?

Rating: Requires Improvement

In response to the appropriateness of the commitment, stakeholders were generally positive about streamlining and reducing the number of frameworks and adhering to standards.[386]

The Department's response stated the commitment was appropriate and that it would provide a meaningful improvement, and that the scope of the commitment was encompassing the "pace and complexity of the marketplace which is constantly evolving". Furthermore, the Department argued that the focus of the commitment is ultimately to ensure that there are "better routes to market, simplification, and reducing overheads for suppliers and buyers, leading to better value for money and improved patient care."[387] Healthy.io argued that there was a risk that standards could put additional work and responsibility on suppliers.[388]

As we have set out earlier in this chapter, stakeholders have expressed concerns that greater alignment on standards and a reduction in the number of frameworks have not yet had the intended consequence of accelerating the route to market. We were also concerned that although social care is an equal part of the system there seems to be a complete absence of mention of social care for this commitment. We therefore conclude that the commitment 'requires improvement' in regard to appropriateness.

383 Department of Health and Social Care (DHS0042)
384 GS1 UK (DHS0027)
385 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)
386 GS1 UK (DHS0027), Healthy.io (DHS0024), techUK (DHS0008)
387 Department of Health and Social Care (DHS0042)
388 Healthy.io (DHS0024)

4 Workforce digital literacy and the digital workforce

Commitment	A. Commitment Met	B. Funding and Resource	C. Impact	D. Appropriateness	Overall
We will co-create a national digital workforce strategy with the health and care system setting out a framework for bridging the skills gap and making the NHS an attractive place to work	Inadequate	Requires improvement	Inadequate	Good	**Inadequate**
We will enable recruitment retention and growth of the digital, data, technology workforce to meet challenging projected health and care demand by 2030 through graduates, apprentices and experienced hires creating posts for an additional 10,500 full-time staff	Inadequate	Inadequate	Inadequate	Inadequate	**Inadequate**

In this section we provide an assessment of two Government's commitment in the area of digital literacy of the health and social care workforce, as well as the specialised digital workforce within health and social care. The following commitments were selected for evaluation:

"We will co-create a national digital workforce strategy with the health and care system setting out a framework for bridging the skills gap and making the NHS an attractive place to work (March 2023)"

"We will enable recruitment retention and growth of the digital, data, technology workforce to meet challenging projected health and care demand by 2030 through graduates, apprentices and experienced hires creating posts for an additional 10,500 full-time staff (March 2025)"

These two commitments were part of the Department's policy paper 'A plan for digital health and social care', announced in June 2022.[389] They were selected due to the essential role workforce plays in enabling a digital transformation of the health and care system. Ensuring the wider workforce, and the specialised staff, have the skills and the capacity to meet an everchanging demand is the key to success. As we concluded in our report evaluating Government commitments in the area of the health and social care workforce in England, the wider issues around ensuring enough staff are recruited, retained and receiving adequate training is an ongoing issue for the NHS and social care.[390]

The Health and Social Care Committee called for a wider workforce strategy in its report 'Workforce: recruitment, training and retention in health and social care'[391]. The Chancellor of the Exchequer Rt Hon Jeremy Hunt MP has, since the publication of our report and that of the Health and Social Care Committee, announced that a workforce plan would be published in 2023.[392]

The first commitment sets out the Government's target to have a national digital workforce strategy with the health and care system. The importance of improving and developing general and specialist digital skills within the health and care workforce is emphasised in 'A plan for digital health and social care' where it is stated that to achieve digitisation "[…] we need to build general digital literacy, expert digital skills, and digital leadership in the health and social care workforce."[393] This follows several earlier national reports which also emphasise the need to develop the digital literacy of the workforce.

In September 2016, an independent report commissioned by the Government titled 'Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England', led by Robert M. Wachter was published. The report, referred to as the Wachter Review, argued that the NHS needed to modernise if it were to continue to provide a high level of healthcare at an affordable cost, and this included ensuring that the NHS became fully digitised. The report concluded that cultural and workforce changes are central to digitisation efforts:

> *"Getting it right requires a new approach, one that may appear paradoxical yet is ultimately obvious: digitising effectively is not simply about the technology, it is mostly about the people."*[394]

The Wachter Review also recommended that Health Education England and healthcare professional membership organisations should have a plan to develop the digital skills of the wider healthcare workforce and healthcare students:

> *"Health Education England, in collaboration with the Royal Colleges and other relevant bodies, should develop and begin to implement a plan to raise the level of digital education in all health professional educational settings, including medical, nursing and pharmacy schools, and in continuing education settings for practicing healthcare professionals."*[395]

389 DHSC, A plan for digital health and social care (June 2022)
390 Health and Social Care Committee, Expert Panel: evaluation of Government's commitments in the area of the health and social care workforce in England, HC 112 (July 2022)
391 Health and Social Care Committee, Workforce: recruitment, training and retention in health and social care, HC 115 (July 2022)
392 HM Treasury, Autumn Statement 2022 (October 2022)
393 DHSC, A plan for digital health and social care (June 2022)
394 The National Advisory Group on Health Information Technology in England, Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England (September 2016)
395 The National Advisory Group on Health Information Technology in England, Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England (September 2016)

Following the recommendations made in the Wachter Review, in 2017 the then Secretary of State Rt Hon Jeremy Hunt MP committed to developing and investing in the capability and capacity of "digital change leaders". These included Chief Informatics Officer, Chief Clinical Information Officer and Chief Nurse Information Officer leader roles. This commitment resulted in the NHS Digital Academy, and its "Digital Health Leadership programme".[396] As we acknowledge later on in this chapter, there has been some encouraging progress made regarding the establishment and development of these digital leaders.

Building on his commitment to develop and investing in the digital healthcare workforce, the then Secretary of State also commissioned Dr Eric Topol to explore how to ensure the healthcare workforce were prepared to deliver a digitised health system.[397] The report, referred to as the Topol review, was published in 2019. This report emphasised the need for staff to have good digital skills, concluding that within the next 20 years 90% of all NHS jobs would require some element of digital skills. The review set out that:

> *"There is a need to raise awareness of genomics and digital literacy among the health and social care workforce. The latter requires the development of the skills, attitudes and behaviours that individuals require to become digitally competent and confident. The levels of digital literacy, the workforce's awareness of the required capability, access to training and support, and skills to enable patients and citizens to improve health and wellbeing through technology will all need to be improved, as a fundamental shift in the balance of skills in the workforce takes place over the next two decades."*[398]

The Topol review further concluded that for the NHS to fully see the benefits of digital transformation it must:

> *"[…] focus on building a digitally ready workforce that is fully engaged and has the skills and confidence to adopt and adapt new technologies in practice and in context".*[399]

Given the recognised need by the Government to develop the digital literacy of the health and care workforce while also improving the provision of specialist digital skills and knowledge, we have interpreted and evaluated this commitment as applying to the wider NHS and social care workforce.

According to the Department, this commitment was specific to a subset of the workforce called the Digital, Data and Technology (DDaT) professionals focusing on the Digital Workforce Programme; however, the Government's response does concede that "it is tied to the wider workforce plan and digital readiness more broadly".[400] The wording of the commitment does not make it obvious that its scope is as narrow as the Department's submission suggests. The strategy which this commitment refers to needs to have the scope of the wider workforce in order to be the engine of effective change. We therefore consider this commitment in the context of the health and care system more widely and

396 NHS Digital, About the NHS Digital Academy (accessed 021222)
397 The Topol Review, Preparing the healthcare workforce to deliver the digital future (February, 2019)
398 The Topol Review, Preparing the healthcare workforce to deliver the digital future (February, 2019)
399 The National Advisory Group on Health Information Technology in England, Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England (September 2016)
400 Department of Health and Social Care (DHS0042)

assess it accordingly.

There are two key bodies responsible for developing digital skills in the wider health and social care workforce. Health Education England is the body in charge of training and developing healthcare professionals. According to the HEE website:

> *"Health Education England (HEE) exists for one reason only: to support the delivery of excellent healthcare and health improvement to the patients and public of England by ensuring that the workforce of today and tomorrow has the right numbers, skills, values and behaviours, at the right time and in the right place."*[401]

Skills for Care defines itself as the "strategic workforce development and planning body for adult social care in England".[402] Unlike HEE however, Skills for Care is not a part of the NHS, but an independent charity without statutory duties.

The second commitment in this policy area refers specifically to the DDaT workforce, and the Government's stated target to expand the number of people within the workforce. The composition of the DDaT workforce is further explained in the Government's Digital, Data and Technology Profession Capability Framework. This framework sets out what the DDaT roles are in Government and what skills are needed to do them. The framework broadly categorises DDaT roles into a range of specialised roles covering software, hardware and data analytics.[403]

The NHSE report titled 'AnalystX Observatory State of the Nation', published in October 2022, provides an overview of the career paths of data and analytic professionals across public sector health and care workforce, which the report argues is "possibly the first of its kind". The report provides results and analysis of the AnalystX Observatory State of the Nation survey which ran in March 2022 and collected responses from 118 data professional teams. 79% of responses came from the health sector (71/90), while 20% of responses (18/90) were received from the care sector.[404] The AnalystX report is focused on data professionals rather than wider IT staff. We will be providing further analysis in relation to this report later in the chapter.

This AnalystX report defines data and analytical professionals as the following:

- Data Engineer,
- Performance Analyst,
- Data Analyst,
- Data Scientist, or
- a combination of the above roles.

The report states that:

401 Health Education England, accessed 110123
402 Skills for Care, About Us, accessed 1101231
403 Central Digital and Data Office, Digital, Data and Technology Profession Capability Framework, (Last updated August, 2022)
404 NHSE, AnalystX Observatory State of the Nation (October 2022)

> *"For data-driven healthcare transformation to truly succeed, recognition of and investment in the non-clinical data team is equally as important and essential as developing the clinical workforce. However, one of the starting blocks to investment in the data and analytics workforce is to understand what the workforce looks like and what are the current barriers experienced by that workforce in recruitment, innovation and development".*[405]

These commitments were chosen due to the vital role digital solutions can play in transforming and streamlining care, to ensure it is as effective, efficient and comprehensive as possible and ultimately provides the best experience for patients and people in receipt of social care. Increasing skills in the wider, and the DDaT, workforce in order to increase productivity and efficiency is often regarded as the solution in solving the gap between increasing demand and the available funding.

However, as has been made clear to us in the course of this evaluation, although digital solutions have the potential to rapidly change healthcare, the benefits may not be fully realised without the necessary skills in the wider and in the specialist workforces. In the evidence we have received we have seen that stakeholders do not consider the digital skills in the wider workforce to be as good as they should be, often due to lack of access to training. During our roundtables we heard that digital staff are sought after, and difficult to retain, due to higher wages outside of the health and social care sector.

Many stakeholders expressed their concern that the Government had not taken enough concrete steps towards realising the aims of these commitments. As we outline in more detail in the later sections of this chapter, stakeholders did not consider these commitments to be particularly clear or well defined. Considering the issues in building digital skills in the wider workforce, the lack of a workforce strategy and the issues in recruiting and retaining staff lead us to conclude that these commitments are not on track to be met. We therefore conclude that Government progress on this commitment overall is inadequate.

Commitment 1: "We will co-create a national digital workforce strategy with the health and care system setting out a framework for bridging the skills gap and making the NHS an attractive place to work (March 2023)"

Overall Commitment Rating and Overview of a digital workforce strategy commitment: Inadequate

This commitment sets out the aim to deliver a workforce strategy with the health and care system. In relation to healthcare staff there is an issue in building up digital expertise which to us appears to be three-fold:

- time is not made available for staff to receive training,
- there is generally not enough training offered, neither is essential role specific skills defined which makes it difficult to plan training or to be satisfied that the training provided is enough, and
- there are too many systems to learn, meaning that staff moving between employers have to re-train for each individual system.

405 NHSE, AnalystX Observatory State of the Nation (October 2022)

In social care, the core issue seems to be the lack of centralised training provision, or an understanding of what the sector staff would benefit from in terms of training. Although commitments and policy documents make repeated references to the health and care system, very little attention seems to have been given by the Department to considering the needs of the social care systems. We are concerned that although care is included in aspirations and targets made, very little seems to have been done regarding analysis and planning which would translate into practical change.

Digital solutions are not only about investment in the technology and the digital tools, but an investment in looking at the culture of the workplace in which they are introduced. Stakeholders emphasised the importance of ensuring staff had time to develop their digital skills, but also that staff would be more welcoming of new technology if the basic things were operating, such as computer equipment, and access to the internal digital infrastructure.

The evidence which we have received does not seem to indicate that the basic needs of the system are covered, nor that the top-down initiatives are creating the digitisation of the health and social care system as intended. Overall, we have concluded that the Government progress on this commitment is 'inadequate'.

Was the commitment met overall (or on track)?

Rating: Inadequate

A successful digitisation of the NHS relies on staff having the skills to utilise the technology being made available to them by having access to appropriate digital infrastructure and the right skills. In its response to our evaluation, the Department states that due to "contextual and operational factors" an interim digital workforce plan will be delivered in April 2023, and a full plan in September 2023.[406]

The Department points to the Covid-19 pandemic as a reason for this delay, however we question this reasoning, as the commitment was made in July 2022 when the contextual factors of the pandemic were well understood, and not prior to the pandemic. Both the Wachter and Topol Reviews reference the need for a workforce digital strategy, and therefore this is something which the Government should have considered for some time.

Many stakeholders who provided written evidence to us expressed uncertainty about what the forthcoming workforce strategy would entail.[407] The Royal College of Physicians and Surgeons of Glasgow commented that the lack of digital workforce strategy reflected the lack of a more general NHS workforce strategy.[408] The Royal College of Surgeons of Edinburgh stated:

> *"The NHS is held back by a lack of workforce planning across the board, and that includes in its digital arm. However, that workforce plan needs to be based around a more united NHS digital space, with significant funding to upgrade legacy IT systems and the ability to link up different NHS computer*

406 Department of Health and Social Care (DHS0042)

407 Chartered Society of Physiotherapy (DHS006), NHS Providers (DHS0026), Nuffield Trust (DHS0032), The Royal College of Surgeons of Edinburgh (DHS0012), Royal College of Physicians and Surgeons of Glasgow (DHS0014), Faculty of Clinical Informatics (DHS0055)

408 Royal College of Physicians and Surgeons of Glasgow (DHS0014)

> *systems across units and geographies, and the workforce to support and enable that to happen."*[409]

In 'A plan for digital health and social care' which sets out this commitment, the Department states:

> *"To achieve digital transformation, we need to build general digital literacy, expert digital skills, and digital leadership in the health and social care workforce.*
>
> *[…] NHSE and Health Education England (HEE) are producing a long-term workforce plan for the NHS, so the actions below delivered by HEE and NHSE detail only our short-term plans for building and sustaining the NHS workforce's digital skills.*
>
> *[…] Our short-term actions will expand the supply of specialist digital skills in the workforce by attracting high-potential graduates, apprentices and trainees as well as developing existing and aspirant health and care staff, and digital, data and technology professionals. The aim is to build a culture of digital literacy, expertise and professional information governance across the system to deliver more value more quickly through the use of digital technologies and data."*[410]

Although there has not been a comprehensive digital workforce strategy announced as promised in this commitment, the Panel recognises the important initiatives to digitally upskill the workforce which have been introduced, such as introducing roles like Chief Clinical Information Officer (CCIO) and Chief Nursing Information Officer (CNIO), and the NHS Digital Academy.[411] Since 2017, the NHS Digital Academy has supported over 500 "digital change leaders across health and care", according to its website.[412]

The HEE report titled 'Establishing the NHS Digital Academy: Future Vision and Implementation Areas for Expansion' sets out that the NHS Digital Academy will "continue to develop current and future generations of excellent digital leaders to drive the information and technology transformation of the health and social care".[413] NHS Providers concluded that unlike clinical expertise, NHS trusts competes with more sectors for digital leadership skills and capabilities. This means that in places like London, trusts face an "extremely competitive" employer market, and in rural areas trusts are competing for candidates in a smaller recruitment pool.[414]

The Royal College of Radiologists (RCR) stated in their response that there is a "chronic" shortage of IT specialists needed to support the work of the radiology workforce, and that those responding to "everyday" IT queries were often also charged with doing the strategy work.[415] In our report following our evaluation of Government commitments made in the area of cancer services in England we concluded that although there were investments made in technical diagnostic equipment, there was a worry about having sufficient staff

409 The Royal College of Surgeons of Edinburgh (DHS0012)
410 DHSC, A plan for digital health and social care (June 2022)
411 HEE, About the NHS Digital Academy (accessed 021222)
412 HEE, About the NHS Digital Academy (accessed 021222)
413 HEE, Establishing the NHS Digital Academy: Future Vision and Implementation Areas for Expansion (March 2021)
414 NHS Providers (DHS0026)
415 The Royal College of Radiologists (DHS0025)

to run the machines, interpret screening results and deliver innovative treatments.[416] We also identified in our health and social care workforce evaluation report, that the primary issue does not seem to be lack of training offered but rather a lack of time and investment in enabling staff to attend training.[417] Similarly, one of the participants at our roundtable told us:

> *"If a system's important enough to bring in, if whoever within the system has decided to purchase a particular piece of software for example, and feel it's important enough to do that and they're investing money, they should also invest money in making sure the training's done right. And staff I don't think should be taken off their normal duties necessarily to do training. They should be offered that outside of their regular work but compensated for that adequately. If they're being trained outside, they should be paid for it."*[418]

The eHealth Forum at the Royal College of Nursing stated:

> *"At present there is little provision for the clinical workforce either for a) wider skills development in the general workforce or b) clinicians in nursing who wish to develop clinical skills. The digital self-assessment tool, while important, is something that could be ignored by professionals and NHS Trusts."*[419]

The NHS staff survey showed that 44.9% of respondents did not feel that they had access to the right learning and development opportunities.[420] This figure speaks to learning and development in general but is interesting to consider in this context. During our roundtable one of the participants told us that there are too many systems to learn between different parts of care, and that it takes a significant amount of time to learn them:

> *"GPs have their system, primary care has their system, mental health have their system. In the midst of that there are a couple of odd organisations that have their own little system, and that's then. That's without [even] going to localised areas where again there's probably a different way of doing things. I don't think we give enough training because actually we have too much to train on. As you can testify, Participant A, being a nurse, you can spend about six months just learning how to use one system correctly and properly."*[421]

We are concerned that the Department does not consider this commitment to extend to the social care sector, although the commitment specifically refers to the "health and care system". Government policy papers and plans continuously refer to social care. CASPA argued that a lack of specific digitisation strategy for the social care sector risks:

> *"[..] implementing changes that will be difficult to unpick, and threaten making technological capabilities worse for the sector rather than to improve quality of care".*[422]

416 Health and Social Care Committee, Expert Panel: evaluation of the Government's commitments in the area of cancer services in England, HC 1025 (March 2022)
417 Health and Social Care Committee, Expert Panel: evaluation of Government's commitments in the area of the health and social care workforce in England, HC 112 (July 2022)
418 Stakeholder roundtable
419 eHealth Forum at the Royal College of Nursing (DHS0044)
420 NHS, NHS Staff Survey 2021 (March 2022)
421 Stakeholder roundtable
422 CASPA - Care Software Providers Association (DHS0017)

The Nuffield Trust argues that expansion of digital skills and tools may be vital to the social care sector:

> *"Given the specific issues surrounding recruitment and retention within the social care sector, increased use of technology offers an opportunity to create a more attractive career pathway for social care staff but it is important to consider the specific needs of this group."*[423]

According to the Department's response, the Government is doing the following things to "equip the adult social care workforce with the right skills" and "support to embed digital ways of working, and align with wider workforce ambitions":

> *"- we will provide a digital learning offer that includes accessible training and online resources over the next 3 years. In March 2022, we published a digital skills framework alongside a collection of digital skills training resources for social care staff. We are finalising the framework and implementing a self-assessment tool to sit alongside. Social care staff will be supported via digital skills training such as the NHS Digital Academy*
>
> *- are working in partnership with Skills for Care, the National Care Forum, Digital Social Care and Cosmic, this year we have delivered 2 free training programmes to support social care professionals to develop their skills and help drive digital transformation and change across the sector. We are now working to formally evaluate the training to help shape a scaled-up future digital learning offer We are progressing these well and are shortly looking to also begin some additional eLearning development, development of two small qualifications, the discovery for the self-assessment tool and a small piece of research for regulated professionals."*[424]

According to the Care Provider Alliance (CPA), 45% of providers express concern that care staff lack digital skills. CPA also states that due to the recruitment and retention crisis in social care, there is little incentive for providers to invest in digital skills and training as staff are likely to leave their roles which means they lose their investment.[425] During our workforce evaluation we heard evidence to much the same effect. In their evidence to our workforce evaluation Care England stated that high vacancy rates in the workforce leads to less internal development, particularly in terms of digital skills training for staff—as a high turnover rate of staff makes it difficult to justify investment in training.[426]

In summary, this commitment has not been met, and is not on track to be met. The initial announced delay to delivering the digital workforce strategy is disappointing, but the wider issues regarding making the NHS and social care sector an attractive place to work are more urgent. Although there are encouraging initiatives to bridge the skills gap, training has not been rolled out comprehensively across the health and care system and basic issues such as provision of functioning technology have not been widely addressed. We therefore conclude that Government progress in this area is 'inadequate'.

423 The Nuffield Trust (DHS0032)
424 Department of Health and Social Care (DHS0042)
425 Care Provider Alliance (DHS0019)
426 Care England (EPW0003)

Was the commitment effectively funded (or resourced)?

Rating: Inadequate

According to the Department's response, this commitment is effectively funded. The response points to the £1.1m for the Digital Workforce programme. According to the response, the "stakeholder view" is that funding levels are "sufficient".[427] It was not clear to us whether the funding referred to is allocated to create the strategy, or whether it is also intended to fund initiatives aimed at "bridging the skills gap and making the NHS an attractive place to work".

It is also the same funding referred to in response to the other commitment in this area, although in this part of the Government response it specifies that £0.5m of the £1.1m is to support the delivery of the DDaT Graduate scheme. We sought further information on the breakdown of how the £1.1m would be spent in order to understand how the remaining £0.6m would be allocated, but we have not received any information.

With the evidence available to us, we are not convinced that this commitment has been effectively funded. It seems that the task at hand to ensure there are adequate levels of digital skills in the wider health and social care workforce, will need further investment. As we have not seen a breakdown, or plan for spending of, the £1.1 million promised we conclude that Government provision in this respect is 'inadequate'.

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Inadequate

A better trained and highly skilled workforce will likely achieve positive impacts for patients and people in receipt of social care. As we have acknowledged in the introduction to this chapter, HEE and Skills for Care carry out work to develop skills within the health and care workforces. Evidence from our roundtable with stakeholders suggests that the impact that current initiatives are is having on patients and people in receipt of care seems to be defined as "patchy".[428]

The Royal College of Radiologists stated that a lack of IT support alongside challenges with infrastructure challenges can have impacts on hospitals regarding capacity and causing staff to feel stressed, and patients having to be diverted to other care facilities. They also stated that the current state of the IT and digital workforce presents significant challenges to the radiology workforce, and that "significant" time is "wasted" whilst clinicians wait for what they characterised as basic IT support.[429]

Until the workforce strategy is produced and published it is challenging to conclude whether the Government's progress on this is adequate. Similarly, the Department's response states that it is "too early" to determine whether the commitment has had a positive impact, but that it is likely to indirectly positively impact patients and people in receipt of social care:

427 Department of Health and Social Care (DHS0042)
428 Roundtable Transcripts
429 The Royal College of Radiologists (DHS0025)

> *"The commitment is likely to achieve meaningful improvement for service users, healthcare staff and the healthcare system as a whole; sustainable digital transformation cannot be achieved without the workforce. Both in terms of digital literacy, but also in terms of capacity and expertise to deliver and optimise the digital investments made."*[430]

In the absence of detailed information from the Department on this, and as none of the written evidence we had anything positive to say regarding this, we conclude that Government progress is 'inadequate'.

Was it an appropriate commitment?

Rating: Good

Stakeholders were positive regarding the appropriateness of this commitment, especially concerning long-term support and linked to support for other aspects of digital transformation.[431] The Department's response set out that the commitment is based on recommendations made in the Topol Review, and that it is therefore an appropriate commitment to make.

The Nuffield Trust emphasised that although workforce is key in achieving digital transformation, and that a commitment like this one is valuable, the skills and support needed are "multi-faceted" and any strategy must emphasise this and be backed with appropriate support.[432] Similarly, the Royal College of Nursing's eHealth Forum told us:

> *"A recognition of the need for professional, skilled, educated digital nurses to support the digital transformation process across NHS organisations. This needs to be resourced from ward to board, with nurses at all levels. Digital transformation will not occur without having a nursing presence to input into decisions and enable practice change."*[433]

Workforce is clearly vital in order to fully achieve digitisation of the NHS. We are concerned about the lack of clarity in how this commitment applies to the social care sector, as it does include a reference to care, but that seems to be missing in the implementation of the commitment. We conclude that the appropriateness of this commitment is 'good', although we have reservations regarding whether the Government is meeting it (as set out above) and the clarity of the intent of it.

430 Department of Health and Social Care (DHS0042)

431 Chartered Society of Physiotherapy (DHS006), NHS Providers (DHS0026), The Royal College of Surgeons of Edinburgh (DHS0012), Nuffield Trust (DHS0032), eHealth Forum at the Royal College of Nursing (DHS0044), Faculty of Clinical Informatics (DHS0055)

432 Nuffield Trust (DHS0032),

433 eHealth Forum at the Royal College of Nursing (DHS0044)

Commitment 2: "We will enable recruitment retention and growth of the digital, data, technology workforce to meet challenging projected health and care demand by 2030 through graduates, apprentices and experienced hires creating posts for an additional 10,500 full-time staff (March 2025)"

Overall Commitment Rating and Overview of retention recruitment and growth of the digital, data and technology workforce: Inadequate

In the course of our evaluation of this commitment it has become clear to us that the there are issues in recruiting and retaining skilled technical staff. Some evidence suggests that there is an overreliance on consultancy staff being hired on short term basis, resulting in NHS and social care specific knowledge is not built up nor retained.

The NHSE's AnalystX report previously mentioned in this chapter found that over a third of those surveyed (34%) said that on average data professionals within their teams stayed in their job for 2–4 years and 41% of respondents said their team members' average time spent in the job was over 6 years. The survey analysis also showed that 68 out of the 118 respondents said there are data professional vacancies within their teams. This totalled to 194.79 whole time equivalent (WTE) roles in the survey, which translates in to 11% of all jobs recorded by the survey being vacancies.[434]

The Department conducted a short survey of Trust leaders, which found that there are currently 3500 full time DDaT roles vacant, which the Department attributed to poor pay and career opportunities, and competition with the wider industry.[435] The NHSE survey run by AnalystX in March 2022 asked respondents to state what the barrier to recruitment was. As shown in table 1 below, the biggest barriers to recruitment were specific technical skills needed for the roles, and pay scales which are relatively low compared to the private sector. However, important to note is that the survey focused specifically on the "data professional landscape, and roles such as Data Engineer, Performance Analyst, Data Analyst, Data Scientist or a combination of these.[436] This means that the survey does not include analysis of wider IT roles. The survey also concluded that most teams were of an average size of 11 employees.[437]

Table 1: Barriers to hiring DDaT staff reported by 41 data professional team leaders working within health and social care. Respondents could select more than one option.[438]

Barrier to recruitment	Count
Specific technical skills	34
Pay scales	26
Banding restrictions	24
Other	9

Source: NHSE, AnalystX Observatory State of the Nation (October 2022)

The NHSE report further concluded that there seemed to be a particular issue with recruiting candidates for more suitable roles, but stated:

434 NHSE, AnalystX Observatory State of the Nation (October 2022)
435 Department of Health and Social Care (DHS0042)
436 NHSE, AnalystX Observatory State of the Nation (October 2022)
437 NHSE, AnalystX Observatory State of the Nation (October 2022)
438 NHSE, AnalystX Observatory State of the Nation (October 2022)

> *"There is disparity between the quantitative figures of where vacancies exist and respondents' reasons as to why they believe recruitment for roles is difficult. Some respondents based in rural areas said that it was particularly difficult to recruit as suitable candidates are drawn to urban cities and towns. However, the data shows that there was a large number of vacancies in urban cities and towns for different reasons. This demonstrates that areas, regardless of urban/rural classification, are struggling with recruitment for a variety of reasons."*[439]

This commitment promises to recruit an additional 10,500 full-time staff to the DDaT workforce by March 2025. In their supplementary evidence, the Government provided a breakdown of the DDaT workforce set out in the below figure 2.

Figure 2: DDaT workforce size by area of work

Figure 2: DDaT workforce size by area of work

Role family	Area of work	Workforce size in 2020 - WTEs	Projected demand in 2030 - WTEs	10-year decrease (-) or increase (+) required - WTEs	10-year decrease (-) or increase (+) required - %
	Clinical coding	3,360	3,301	-459	-13%
Data architecture	Health records	12,610	12,315	-295	-2%
	Information management	8,713	15,561	+7,848	+91%
Technical infrastructure	Information and communications technology	16,407	21,943	+5,536	+34%
Application	Clinical informatics	1,778	13,731	+11,953	+672%
	Knowledge management	709	2,119	+1,411	+179%
Organisational transformation	IT programmes and project management	1,741	4,859	+3,118	+179%
	IT strategy and development	901	3,407	+2,506	+325%
	IT education and training	215	387	+171	+83%
	Total workforce	**46,009**	**77,933**	**31,914**	**+69%**

(Source: DHS0056)

439 NHSE, AnalystX Observatory State of the Nation (October 2022)

In the HEE report titled Data Driven Healthcare in 2023: Transformation Requirements of the NHS Digital Technology and Health Informatics Workforce, the DDaT workforce is estimated to consist of 46,009 people.[440] This figure does not however include social care.

According to the Department's supplementary response the target figure of an additional 10,500 is a pro-rated number of whole time equivalent (WTEs) staff from 2022 – 2025. The Department's response states that there are 3,500 vacancies in the DDaT workforce in healthcare,[441] but does not provide an equivalent figure for social care. In the supplementary response the Department stated that it is currently undertaking workforce planning with the aim to develop a baseline and forecast for social care.[442]

Although we understand that estimating vacancies in social care is challenging due to its multiple provider delivery model, it is essential to include as the commitment itself refers to health and social care, not just health care. The omission of DDaT staff in social care is very concerning. The NHS AnalystX report heard from the care sector, but social care sector stakeholders only made up 20% of responses to the survey.[443] The Department was also unable to estimate the size of the DDaT workforce in the social care sector or project the demand in the social care sector for DDaT roles like it has for the health sector.

Ultimately the issues in the DDaT workforce are similar to those of the NHS and social care more widely. The most recent NHSE survey of the data professional workforce showed that recruitment and retention is a widespread issue, with 1 in 10 roles vacant. Recruitment and retention continue to be challenging as staff leave the organisations faster than new staff with the right qualifications can be sourced and recruited.

The DDaT workforce is not immune to the pressures similarly facing social care workers, nurses, dentists and others in the health and social care sector, and when other employers or industries offer better pay and conditions it is understandably difficult to retain talent. We look forward to seeing the workforce strategy in due course, but in evaluating the Government progress so far, we have concluded that Government progress is inadequate.

Was the commitment met overall (or on track)?

Rating: Inadequate

In its response addressing whether this commitment has been met, the Department refers to the launch of the DDaT graduate scheme which currently has enrolled 126 people, with another 135 "in the pipeline".

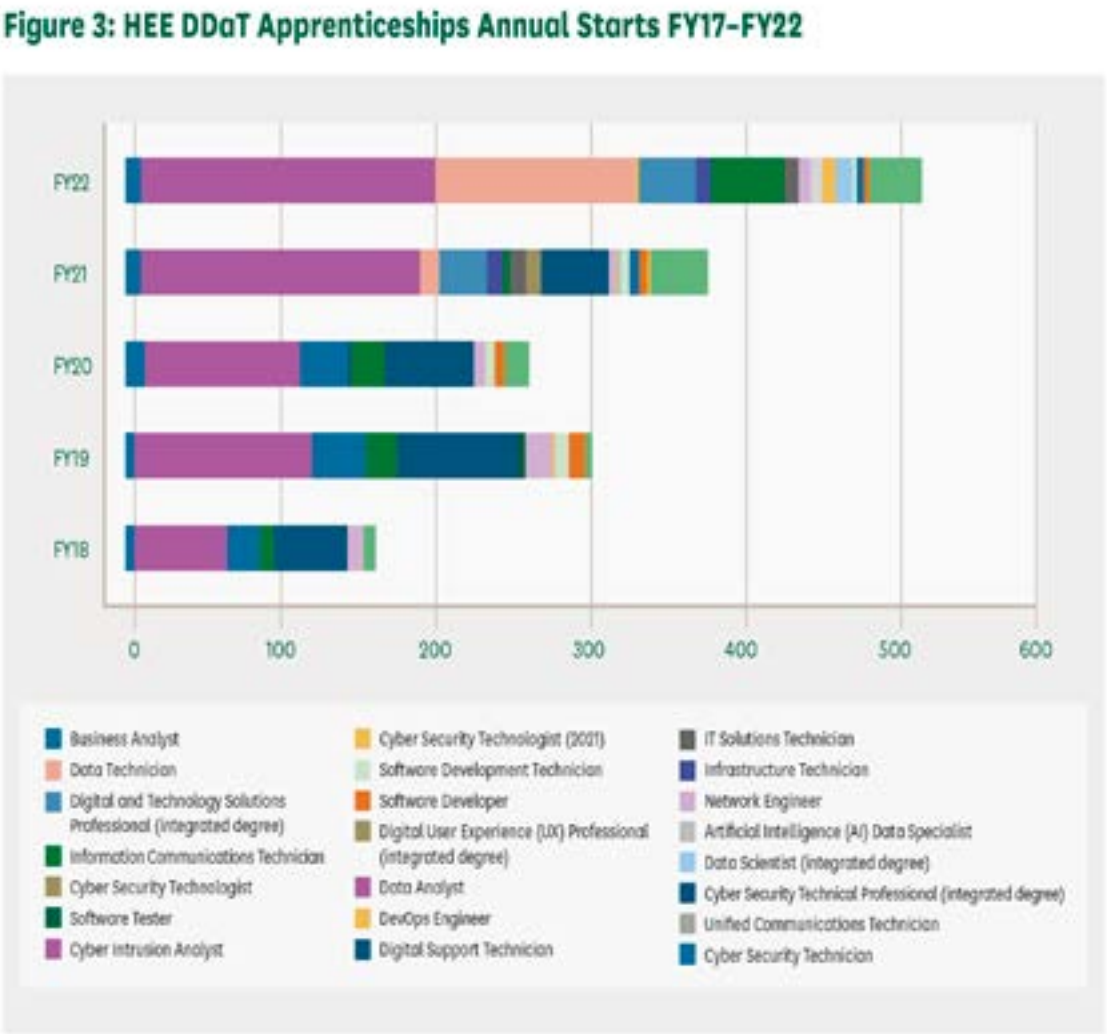
According to its response the Government target for "new talent recruits" is 500 for 2022/2023, which includes both graduates and apprentices. In addition to the graduate scheme the Department's response also refers to a digital workforce strategy which will set out how new staff can be recruited, and how ICSs and providers can "implement approaches to re-skill and upskill existing staff".

440 HEE, Data Driven Healthcare in 2030: Transformation Requirements of the NHS Digital Technology and Health Informatics Workforce (March 2021)
441 Department of Health and Social Care (DHS0042)
442 Supplementary evidence provided by the Department for Health and Social Care (DHS0056)
443 NHSE, AnalystX Observatory State of the Nation (October 2022)

The Department's response does not make clear whether the "re-skilled and upskilled" staff will count towards the 10,500 goal, which is important as they will be creating a vacancy elsewhere in the organisation. The Department concludes that the workforce strategy will be key in meeting the commitment by 2030, and states that it is "on track" to meet it against the revised timeline of delivering it in September 2023.[444] The Department's response did not, however, provide statistics on the number of apprentices who complete the scheme, and whether they then go on to work within the NHS and social care DDaT workforce.

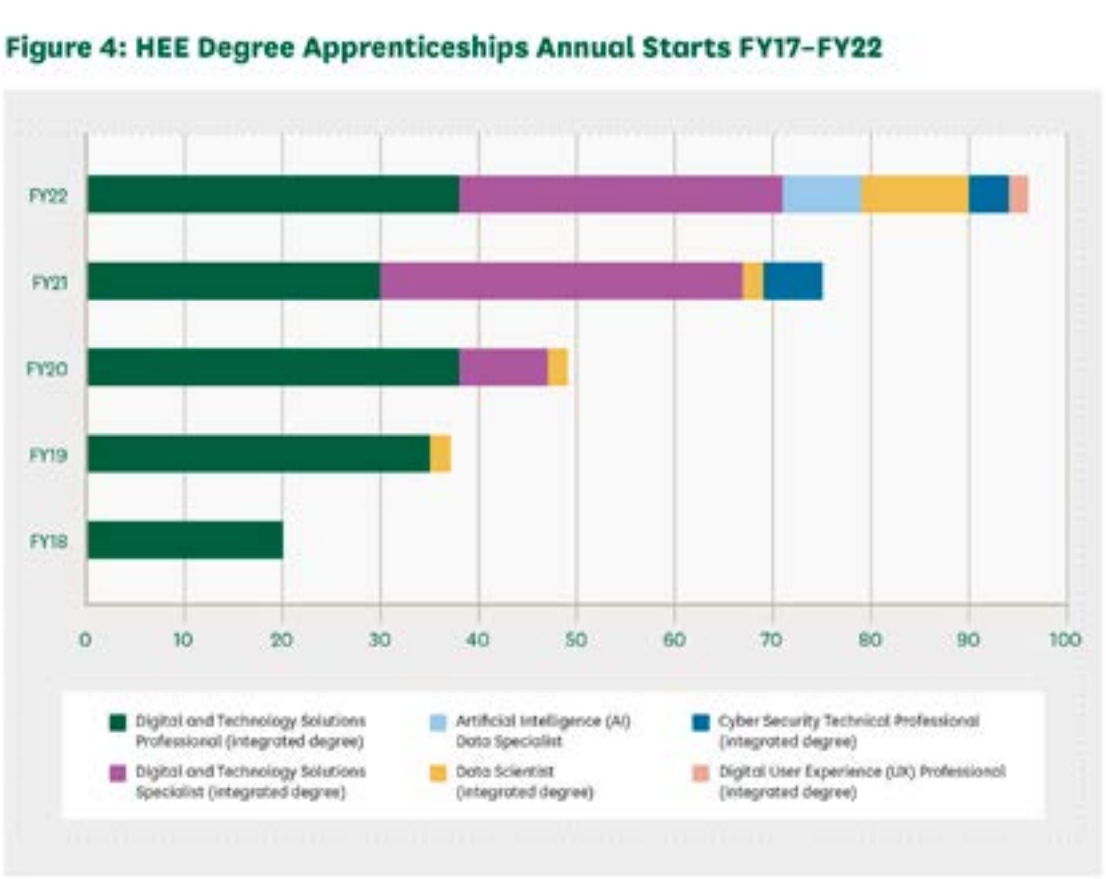
The figures below were provided by the Department and show the types of HEE DDaT apprenticeships started since 2018.

Figure 3: Breakdown of HEE DDaT Apprenticeships Annual Starts FY17-FY22



(Source: DHS0056)

Figure 4: Breakdown of HEE Degree Apprenticeships Annual Starts FY17-FY22



(Source: DHS0056)

In the evidence we have received many stakeholders told us that there is a lack of skilled digital staff, and that it was challenging to retain those currently there.[445] The Faculty of Clinical Informatics told us that due to the lack of centralised strategy for the multiple types of roles in the specialised digital workforce, there is a lack of coordination and clarity about what each role entail. Furthermore, the FCI stated that a workforce strategy would be important in setting out expectations from the range of organisations who will have to work together to develop the digital workforce.[446]

NHS Providers stated that the NHS as a whole understands the importance of recruiting the right DDaT staff in order to meet the needs to patients, people in receipt of social care and the wider workforce, but underscored the need for a national workforce strategy in order for "the sector to renew its position as an attractive place to work and deliver digital transformation".[447]

Cresswell and Williams concluded that there is an "enduring problem" in retaining staff with digitalisation expertise and conventional technical specialists, stating that:

> *"Many move to the private sector and there is an increasing reliance on commercial consultancy expertise that means that knowledge is not retained within the NHS."*[448]

A 2021 HEE report, recommended that the financial reward structures for the NHS digital technology and health informatics workforce, with particular attention given to the competitiveness of the labour market in affecting recruitment and retention of staff in the NHS, should be reviewed.[449] NHS Providers states it expects HEE's long-term strategic framework for workforce development (also called Framework 15) to be likely to recommend increasing the size of the DDaT workforce, which it states it would welcome.[450]

445 Chartered Society of Physiotherapy (DHS0006), Care Providers Alliance (DHS0019), NHS Providers (DHS0026), ORCHA (DHS0029), Royal College of Physicians and Surgeons of Glasgow (DHS0014), Dr Kathrin Cresswell and Prof Robin Williams (DHS001)

446 Faculty of Clinical Informatics (DHS0055)

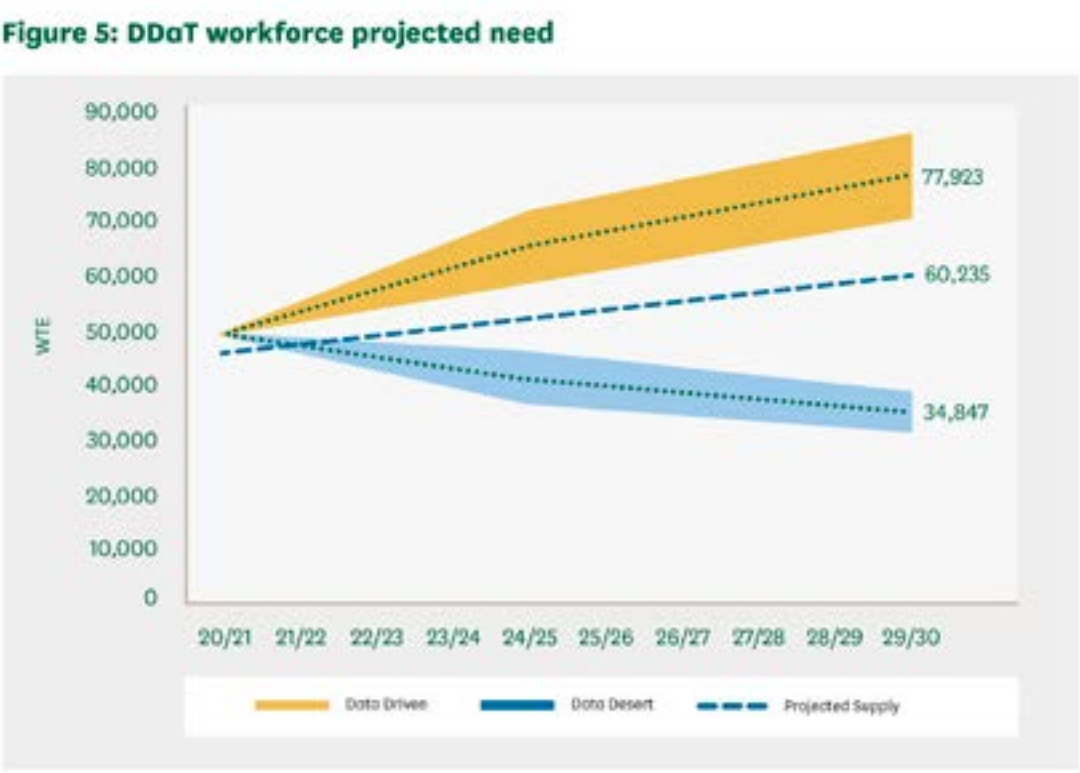
447 NHS Providers (DHS0026)

448 Dr Kathrin Cresswell and Prof Robin Williams (DHS0001)

449 HEE, Data Driven Healthcare in 2030: Transformation Requirements of the NHS Digital Technology and Health Informatics Workforce (March 2021

450 NHS Providers (DHS0026)

Figure 5: DDaT workforce projected need[451]



As illustrated above in figure 5 from a HEE 2021 report, the DDaT workforce will (based on trends observed for 2016–17 to 2018–19) increase from its current size by 31 per cent to 60,250 WTEs in 2030 if no significant policy or related actions are taken. This increase, the report concludes, is not sufficient to the meet the projected demand for this workforce in what it calls "a Data Driven Future".

The report states that, in this scenario, by 2030 there will be a shortfall of around 17,750 WTE members of staff. The report makes the following statement:

> *"The NHS faces significant recruitment and retention challenges in a competitive labour market where people with digital and data analytical skills are required by all sectors of the economy. Consideration therefore needs to be given to the monetary, as well as non-monetary, reward factors driving recruitment and retention. The level of investments required in developing this workforce should not be underestimated."*[452]

Although we recognise the encouraging drives to recruit through the graduate and apprentice schemes, and retain staff in the DDaT workforce, the context in which this workforce finds itself in leads us to conclude that the progress against this commitment is inadequate. We found no evidence of strategies to improve staff retention. Both the social and health care sectors are facing an unprecedented recruitment and retention crisis, and projections does not suggest that current efforts will measure up to the task ahead.

451 HEE, Data Driven Healthcare in 2030: Transformation Requirements of the NHS Digital Technology and Health Informatics Workforce (March 2021)

452 HEE, Data Driven Healthcare in 2030: Transformation Requirements of the NHS Digital Technology and Health Informatics Workforce (March 2021)

Although the commitment mentions the social care sector, there is no understanding of how the DDaT workforce will be distributed between the two sectors or indeed estimates of the projected need for the social care sector. We therefore conclude that the Government's progress towards meeting this commitment is 'inadequate'.

Was the commitment effectively funded (or resourced)?

Rating: Inadequate

The Department's response states that the funding level of £1.1 million is adequate, but states that the DDaT graduate scheme cannot be scaled until there has been confirmation of funding for 2023/24. The response sets out that £500,000 of the £1.1m will be dedicated to the graduate scheme but does not specify how the remaining £600 000 will be spent, nor whether it is intended to cover recruitment to increase the workforce.[453]

As we noted under the previous commitment in this area, it is not clear whether the £1.1m is also meant to cover upskilling the wider health and care workforce. NHS Providers criticised funding arrangements connected to this commitment:

> *"Attempts to grow the recruitment and retention of the DDaT workforce have been undermined by the government's decision not to fully fund this year's below inflation pay award. As has been widely reported, funding instead has been diverted away from money earmarked for technology budgets. In one ICS, this has dramatically reduced their technology budget by 95%."*[454]

In a 2021 HEE report, the following conclusion is made:

> *"Investments in the NHS digital workforce will need to be made if the NHS is to realise its ambitions around digital transformation. The salary and employment on-costs for the workforce of 46,000 WTEs in 2020 is estimated to be around £2.05 billion. If this workforce is to increase to a projected size of 78,000 WTEs in 2030 and its composition remains the same, the costs will be around £5.2 billion."*[455]

Stakeholders responding to this evaluation expressed concerns around the NHS's ability to retain skilled DDaT staff due to competition with other industries offering better conditions and pay. The Royal College of Surgeons Edinburgh argued that rises in inflation and possible savings to the public sector means that resources are likely to be focused on the frontline, which it argues could lead to:

> *"[…] a knock-on effect to backroom staff such as digital, data and technology staff. The lack of a strategic workforce plan for those roles means that this is often overlooked or unseen."*[456]

453 Department of Health and Social Care (DHS0042)
454 NHS Providers (DHS0026)
455 HEE, Data Driven Healthcare in 2030: Transformation Requirements of the NHS Digital Technology and Health Informatics Workforce (March 2021)
456 The Royal College of Surgeons of Edinburgh (DHS0012),

NHS Providers similarly stated that NHS trusts cannot compete with certain industries on pay and financial perks, but that this gap could be closed with "national intervention on NHS pay".[457] As mentioned previously in this chapter, the NHSE AnalystX report found that pay scales was the second most referenced barrier to recruitment.[458]

The Practice Management Network stated that although it is possible to host graduates in GP practices and primary care settings, no funding is available to assist the practice in paying for the monitoring, development and training of the graduate.[459] It remains unclear to us how practices will fund this, and whether it will be a priority in light of other competing budgetary demands.

Although the Department states that the current levels of funding are enough to meet this commitment, this did not come across in the evidence we have received. According to a 2021 HEE report quoted above, £5.2 billion is needed to employ enough staff to keep workforce levels where they need to be to meet demand by 2030. In the Department's response, they have set out £1.1 million worth of funding would also cover hiring 10,500 WTEs, which will fall short of the projected need and does not seem to be enough funding to reach this target.

In addition to this, the NHS Public Board Minutes from September 2022 indicated a forecasted overspend of £18.2m in revenue for digital due to in-year funding reductions, increased delivery costs and the impact of a pay deal on NHS Digital staff costs. The board minutes set out that a "reduction in planned recruitment" on NHS Digital Staff had reduced costs.[460]

In summary, a forecasted lower investment in workforce than what was recommended and cuts in the current year's recruitment budget suggest to us that the Government progress in regard to funding of this commitment is 'inadequate'.

Did the commitment achieve positive impacts for patients and people in receipt of social care?

Rating: Inadequate

In its response, the Government state that the commitment, when reached, can produce a meaningful improvement to services and care for patients and people in receipt of social care, but that it is too early to measure it.[461] During our roundtable, one of the stakeholders argued that wider workforce shortages will ultimately hinder the digitisation of the NHS:

> *"The question at the moment, and it has been for many months, and it's getting worse, is where is the workforce? Where is the workforce to service digital transformation?"*[462]

Cresswell and Williams praised the "hybrid specialists" trained under the NHS Digital Academy, but argued that there is an enduring problem in retention of staff with

457 NHS Providers (DHS0026)
458 NHSE, AnalystX Observatory State of the Nation (October 2022)
459 The Practice Management Network (DHS0036)
460 NHS Digital '1 November 2022 public board (web pack)' accessed 051222
461 Department of Health and Social Care (DHS0042)
462 Stakeholder roundtable

digitalisation experience and expertise, as well as technical specialists, which leads to what they characterise as an "increasing reliance on commercial consultancy expertise that means that knowledge is not retained in the NHS".[463] Based on a survey of NHS Trusts, the FCI concludes that organisations which had received Government funding to support digitisation had a more senior digital workforce.[464]

The increased costs, and loss of institutional knowledge, associated with an over-reliance on commercial consultancy are arguably having a negative effect on patients and people in receipt of social care. Assessing the information available to us we conclude that although the aspiration of this commitment is adequate, the current progress on it is 'inadequate' in respect of achieving a positive impact for patients and people in receipt of social care.

Was it an appropriate commitment?

Rating: Inadequate

In this section we consider whether the commitment is appropriate. Ensuring digital services and technology are well developed, run and managed is an integral part to achieving digital transformation. Therefore, ensuring there is enough DDaT staff to meet the demand of the health and care sector is crucial. One roundtable participant told us:

> *"If I had to choose one group of staff that could give most to the health service it would be IT designers, IT support."*[465]

The Faculty of Clinical Informatics argued that the commitment should have been made on a more granular level, to reflect the "diverse workforce targets".[466] On the other hand, ORCHA argues that although recruitment of DDaT roles is important, more can be done in terms of training the wider frontline workforce, enabling them to better understand how to integrate digital solution in the care they provide. ORCHA also called for a national team of social care specialists to establish and maintain guidance relevant for the social care sector, and to develop access to comparable NHS standard resources and management teams.[467] The Nuffield Trust stated:

> *"Importantly, education, training and support should not only focus on how to support the workforce use specific technologies (such as those highlighted in the Topol Review), but more widely on how the increased use of technology impacts workforce roles."*[468]

The Department's response argued that the commitment was appropriate, stating that the Government's strategy was using the 2021 HEE report on data driven healthcare:

> *"Information from the exercise [the 2021 HEE data driven healthcare report] was used to model projected demand, and data from the NHS Electronic Staff Record used to model projected supply, for the digital workforce for the period 2020 to 2030. Particular attention was paid to workforce demand*

463 Dr Kathrin Cresswell and Prof Robin Williams (DHS001)
464 Faculty of Clinical Informatics, Summary report on a survey of the Clinical Informatics Workforce in NHS Trusts in England (January 2023)
465 Stakeholder roundtable
466 Faculty of Clinical Informatics (DHS0055)
467 ORCHA (DHS0029)
468 The Nuffield Trust (DHS0032)

> *and the job roles and skills needed in a scenario called the Data Driven Future. Highlighted areas of change across workforce planning, workforce development and professionalisation and workforce supply; all of which the commitment in question seeks to address. Through the research carried out by Health Education England and the recent vacancy surveys across the system, plus insights gathered from large EPR suppliers, we have a clear idea of the DDaT roles that need more focused attention."*[469]

To conclude, the commitment itself is ill-defined, which could arguably hinder progress towards it. However, what leads us to conclude that it is 'inadequate' is the absence of estimates and projections of demand for DDaT social care sector staff in order to properly digitise the health and care systems.

469 Department of Health and Social Care (DHS0042)

Annex A: Anchor statements for CQC-style ratings

Rating	Was the commitment met overall/Is the commitment on track to be met?	Was the commitment effectively funded?	Did the commitment achieve a positive impact for patients?	Was it an appropriate commitment?
Outstanding	The commitment was fully met/there is a high degree of confidence that the commitment will be met	The commitment was fully funded with no shortfall	Patients and stakeholders agree that the impact was positive	Evidence confirms appropriateness of the commitment
Good	The commitment was met but there were some minor gaps, or is likely to be met within a short time after the deadline date/it is likely that the commitment will be met, but some outstanding issues will need to be addressed to ensure that is the case	The commitment was effectively funded, with minor shortfalls	The majority of patients and stakeholders agree that the impact was positive	Evidence suggests the commitment was appropriate overall, with some caveats
Requires improvement	The commitment has not been met and substantive additional steps will need to be taken to ensure that it is met within a reasonable time/the commitment will only be met if substantive additional steps are taken	The commitment was ineffectively funded	A minority of patients and stakeholders agree that the impact was positive	Evidence suggests the commitment needs to be modified
Inadequate	The commitment has not been met and very significant additional steps will need to be taken to ensure that it is met within a reasonable time/ the commitment will only be met if very significant additional steps are taken	Significant funding shortfalls prevented the commitment being met	Most patients and stakeholders did not agree there was a positive impact for patients	Evidence suggests the commitment was not appropriate

Annex B: Published written submissions

The following written submissions were received and can be viewed on the inquiry publications page of the Committee's website.

(1) Dr Kathrin Cresswell and Prof Robin Williams (DHS0001)

(2) Prof Sue Latter (DSH0002)

(3) Association of Dental Hospitals (DSH0003)

(4) Dr Frederick Konteh, Prof Russell Mannion, Prof Rowena Jacobs (DSH0005)

(5) Chartered Society of Physiotherapy (DSH006)

(6) TSA (DSH0007)

(7) techUK (DSH0008)

(8) Dr Helen Atherton (DSH0009)

(9) British Dental Association (DSH0010)

(10) Pharmacy2U (DSH0011)

(11) The Royal College of Surgeons of Edinburgh (DSH0012)

(12) PAGB (DSH0013)

(13) Royal College of Physicians and Surgeons of Glasgow (DSH0014)

(14) Zoom UK&I (DSH0015)

(15) CASPACare Software Providers Association (DSH0017)

(16) National Community Pharmacy IT Group (DSH0018)

(17) Care Provider Alliance (DSH0019)

(18) Dr Felix Greaves, Dr Chrysanthi Papoutsi, Dr Claire Reidy, Dr Anthony Laverty, Prof John Powell, Dr Bernard Gudgin, Miss Sukriti KC, and Ms Salina Tewolde (DSH0020)

(19) Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) (DSH0021)

(20) Digital Healthcare Council (DSH0022)

(21) Healthcare Financial Management Association (HFMA) (DSH0023)

(22) Healthy.io (DSH0024)

(23) The Royal College of Radiologists (RCR) (DSH0025)

(24) NHS Providers (DSH0026)

(25) GS1UK (DHS0027)

(26) Professional Record Standards Body (DSH0028)

(27) ORCHA (DSH0029)

(28) The Company Chemists' Association (DSH0030)

(29) British Association of Dermatologists (DSH0031)

(30) Nuffield Trust (DSH0032)

(31) Healthwatch England (DSH0033)

(32) Northumbria Healthcare NHS Foundation Trust (DSH0035)

(33) The Practice Management Network (DSH0036)

(34) Cisco (DSH0037)

(35) NHS Race and Health Observatory (DSH0038)

(36) ABPI (The Association of British Pharmaceutical Industry)(DSH0039)

(37) SAS Institute (DSH0040)

(38) NHS Digital (DSH0041)

(39) Department of Health and Social Care (DSH0042)

(40) medConfidential (DHS0043)

(41) eHealth Forum at the Royal College of Nursing (DSH0044)

(42) Faculty of Clinical Informatics (DSH0055)

(43) Supplementary evidence provided by the Department of Health and Social Care (DSH0056)

Annex C: Transcripts

Roundtables with people who have lived experience of digitisation of the NHS in England and their representatives

(1) Group 5 Event 1 (DSH0049)

(2) Group 5 Event 2 (DSH0054)

Roundtables with clinicians working in the NHS

(3) Group 1 Event 1 (DSH0045)

(4) Group 2 Event 1 (DSH0046)

(5) Group 1 Event 2 (DSH0050)

(6) Group 2 Event 2 (DSH0052)

Roundtables with individuals working in social care

(7) Group 3 Event 1 (DSH0047)

(8) Group 4 Event 1 (DSH0048)

(9) Group 3 Event 2 (DSH0051)

(10) Group 4 Event 2 (DSH0053)