



Public  
Policy  
Projects

Public Policy Institute



# Digitisation of Healthcare and Medical Technologies

In partnership with

**FUTURE** OF HEALTH

## State of the Nation 2021



SIEMENS



# About Public Policy Projects

---



---

Public Policy Projects (PPP) is a global policy institute offering practical analysis and development across a range of sectors, including health and social care. The institute is independent and cross-party, and brings together public and private sector leaders, investors, policymakers and commentators with a common interest in the future of public policy. Chair, Rt Hon Stephen Dorrell and Deputy Chairs, Rt Hon Amber Rudd, Rt Hon Damian Green MP, Baroness Blackwood of North Oxford and Stephen Hammond MP, lead a truly unique policy institute that offers practical analysis and actionable insight around the world.

Public Policy Projects publishes annual *State of the Nation* and *State of the Globe* reports in a series of policy areas including integrated care, social care, genomics, rare diseases, women's health, AMR, health inequalities, diagnostics, economics, environment and energy, connectivity and 5G, rail infrastructure and planning. All these programmes, and their corresponding events, publications and conferences, receive contributions from sector leaders from around the world.

# About Future of Health

---

Future of Health is a fiercely independent next generation think tank and movement focused on stimulating long-term thinking and cross sector collaboration around the future of healthcare. Future of Health is run by Andy Wilkins who was the lead author of the highly influential *Health Beyond the Fog, a 10-15 year vision for person-centred healthcare in a technology enabled 21st Century*, commissioned by the Royal Free Hospital Charity.

The world stands at the dawn of the greatest advances in science, medicine and technology in human history. These trends are set to transform the possibilities for healthcare in the coming decade and call for new and bigger thinking around the implications for the public, the practice of healthcare and the wider health and policy ecosystem. Future of Health supports healthcare systems to transcend traditional short-term siloed thinking by helping stakeholders and leaders across the healthcare landscape to explore the future and the new forms of systemic action and collaboration required to achieve this.

# Foreword: Dr Harpreet Sood & Baroness Nicola Blackwood

This *State of the Nation* report comes at a seminal moment for the NHS. The coronavirus pandemic is having an extraordinary impact on the healthcare service and its staff. Its effects will last long after the pandemic has subsided. This report describes the state of digital services in the NHS in England and puts forward a set of recommendations that will enable the NHS and social care to build on its digital-enabled transformation.

Covid-19 has accelerated this transformation. There is now an increasing acceptance and perceived usefulness of the role technology has in service provision. Whether it's the use of virtual care platforms, remote monitoring solutions, communication tools, digital apps or sophisticated data platforms, the service is entering a new phase of digital maturity. Both the Wachter and Topol reviews laid a strong foundation which this transformation is being built on, but a new path needs to be paved to ensure sustainability.

The pandemic has exposed several challenges and flaws but none more pressing than widening health inequalities. An increasing effort is needed to ensure this widening gap is reduced. Intelligent use of actionable data and personalised services will give patients the chance to be offered solutions that will be more accessible and convenient to them. Additionally, digitisation will require a clear funding model, evaluation and evidence generation to prove these digital solutions work. Equally, a stronger regulation framework is needed to maintain high levels of quality and safety. This is also a unique moment to consider the role, functions and skills needed for our future workforce, and a plan needs to be developed for how we will get there. The recently published government White Paper, *Integration and innovation: working together to improve health and social care for all*, provides an additional catalyst to consider these elements.

This report would not have been possible without the tremendous contributions of colleagues working in the NHS, social care, academia and industry who have participated in a number of interviews and roundtables. In particular, a special mention to Andy Wilkins, Taome Jennings and Dan Male who have made it all possible. The future vision for an integrated service with a focus on preventative population health will require a new form of leadership, deeper relationships, collaborations and partnerships across the health and care system. Covid-19 has shown this is possible and now is the moment to embed digital as part of everyday workings. If we do not do it now, when will we?

This report is dedicated to Dame Fiona Caldicott who's vital contributions to the protection of data have set standards around the world. We hope this work respects her legacy and commitment to digital transformation in healthcare.



A handwritten signature in black ink, appearing to read 'N Blackwood'.

**Baroness Blackwood of North Oxford**

Deputy Chair Healthcare and Life Sciences  
**Public Policy Projects**



A handwritten signature in black ink, appearing to read 'H Sood'.

**Dr Harpreet Sood**

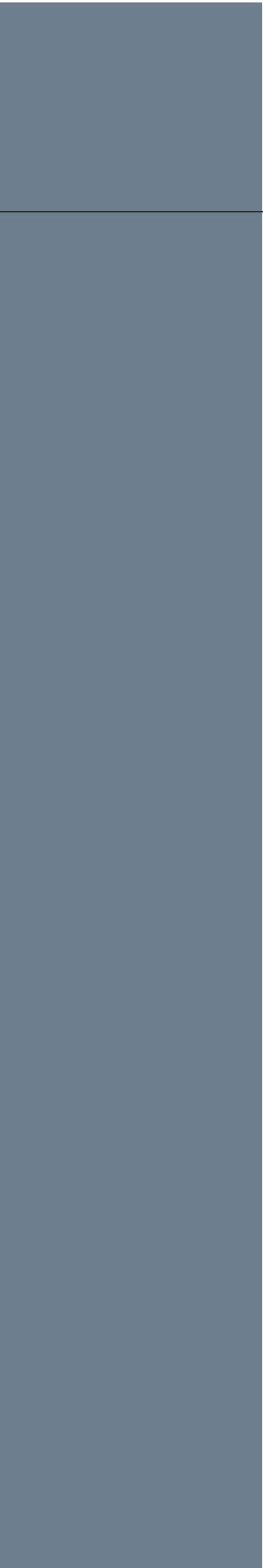
Co-founder, **NHS Digital Academy**,  
Board Member, **Health Education England**

# Contents

Executive Summary	10
Recommendations	12
1. Introduction	14
2. A Healthy UK – securing our future	16
3. Digital enablement of frontline care	27
4. Enabling pillars for digital transformation	69
5. The role of the centre in a national population health system	100
6. Longer-term building blocks for next generation population health	107
7. Glossary	119
8. Case study list	120
9. Acknowledgments	121
10. Interviewees	122
11. References	125

NOTE: This is an abridged version of the Digitisation of Healthcare and Medical Technologies State of the Nation report. As such, the page numbers correspond to their position within the full report.

If you would like to download a copy of the full report, please contact [operations@publicpolicyprojects.com](mailto:operations@publicpolicyprojects.com). The report costs £1,500 for an individual purchaser, £4,500 for a corporate purchase. The report is free for public sector, third sector and PPP subscribers.



# Executive Summary

A healthcare system fit for the 21st century must have digital innovation at its core. As innovative technology continues to transform every aspect of modern life, there is a growing body of evidence demonstrating the impact this is having on population health and wellbeing. The Covid-19 pandemic has accelerated digital transformation by several years. It demanded rapid collaborative action to accelerate new virtual ways of working. Classrooms, offices and social lives were downloaded onto the screen overnight: digital infrastructure has enabled society to thrive in ways inconceivable only a year ago.

Healthcare reform must build on the momentum generated by the pandemic to ensure digitally enabled solutions are sustained in the long-term. Covid-19 has tested the maturity of the UK's digital health capability: where GP services once saw 95 per cent of their patients in the surgery, 99 per cent are now delivered virtually. A full review of digitally enabled solutions delivered during the pandemic must be conducted if tangible lessons are to be learnt for the future. There are immediate steps that can be taken as well as longer-term transformation that must begin.

The Department of Health and Social Care has published its White Paper *Working together to improve health and social care for all* outlining a future vision for integrated, innovative services with a focus on preventative population health. This blueprint is a guide for legislation to follow later in 2021. However, these bold reforms must put digital and data at their core if they are to deliver on the ambitious aims for the benefit of patient outcomes. This report collates

real-world evidence from case studies, insights from roundtables and reports on progress from the frontline of healthcare delivery to make a case for a technology enabled future for health and care.

The digitisation of frontline care offers incredible opportunities for the NHS to improve patient outcomes. Exploring the digital ambitions of the NHS Long Term Plan (LTP) is essential for understanding the improvement of frontline care. As the health service moves towards a population health-based approach, centred around Integrated Care Systems (ICSs), the prioritisation of digital is essential. Built on a foundation of digital functionality, ICSs need to be rapidly enhanced to deliver more complex system working and interoperability of data, enabling more personalised care.

While data is often locked in legacy silos, the acceleration of new apps, wearables and medical devices is leading to an increasing amount of data types and volumes. Data and insight will form the bloodstream of a new digitally enabled health and care ecosystem and will become a highly strategic asset. This report calls for a review of current data frameworks to inform the forthcoming *Data Strategy for Health and Social Care*.

## Embracing population health

The digitisation of frontline care also requires careful consideration of the wider population health agenda. Covid-19 has exacerbated UK health inequalities to such an extent that digital health developments that do not consider the economic, social and physical

situation of all UK citizens will worsen the health outcomes of millions. Expanding emerging innovation on how digitisation can confront health inequalities rather than exacerbate them is paramount.

Implementing a prevention-first approach is of particular importance for decreasing health inequalities and improving health outcomes for all. Digital technology has a profitable role to play in advancing the Department for Health and Social Care's 2019 commitment to preventative health. Putting digital, and more importantly data, at the heart of preventative healthcare is a tangible way for the UK health system to truly level-up its services.

There are many conceptual building blocks to be considered in improving population health outcomes. Understanding the way care is experienced and how population health is configured provides areas for future debate. The next generation will



be one that is unequivocally shaped by digital technology. It is, therefore, necessary to predict new concepts that represent future areas of exploration.

Collaborative action to improve health also feeds directly into opportunities for social renewal, a healthier and more productive workforce and the opportunity to place the UK at the centre of a burgeoning global health and life sciences industry. Improved health is, therefore, an investment in the future prosperity of the UK and its place in the world, and not just a cost to be managed.

#### **Developing digital leadership**

Reinforcing a culture of innovation will be key to unlocking the future of UK-based digital health. Digitally-focused leaders are essential at the local, regional and national level to shape the health eco-systems that promote digital culture across services. ICSs should broaden the criteria upon which leaders are appointed to

promote inclusivity and digital skills. NHS funding models must be reviewed to guarantee digital transformation plans can be delivered in full, with the Treasury becoming fully supportive of this endeavour.

The digitisation of UK healthcare will enable historically separate institutions to fully collaborate, while new partnerships are formed to ensure greater continuity of care and a more holistic approach to patient pathways. The rise of chronic disease and the need for ongoing care across a greater number of specialties has exposed the highly siloed and disease-based structures as unsuited to the needs of a population with increasingly complex needs.

None of these developments will be possible without constructing pillars of digital transformation and embedding them in the foundations of healthcare services: namely, renovating a system that is siloed, episodic and reactive to one that is innovative, preventative,

sustainable and people-focused.

#### **Empowering the citizen**

If digital is to be placed at the heart of service transformation, patients must be engaged with services through access to their own health data and the digital tools to drive their own care. By empowering patients to be co-creators of their own health, they can be reframed as informed decision makers as opposed to passive recipients of care. Citizens must, therefore, be engaged with the development of new forms of digital and data enabled healthcare.

The UK health and care system finds itself at an opportune moment: to capitalise on digital progress that will likely never again accelerate so quickly. It is time for the sector to continue what it has begun over the last year and fully commit to a health future with digital reform at its core.

# Recommendations

A series of 12 policy recommendations have been drawn out of the report. These present clear calls to action to ensure that forthcoming reforms to health and care place digital, data and innovation at their core. The recommendations are addressed to the Government, specifically the Department of Health and Social Care and the Secretary of State, NHS England/Improvement, NHS Digital, NHSX, Integrated Care Systems, Health Education England and other arm's length bodies (ALBs) in health and care. They are also relevant for all health and care providers, clinicians, healthcare professionals, social care professionals, local government and, just as importantly, patients.

## 1. Place digital innovation at the heart of healthcare reform.

The Secretary of State for Health and Social Care should ensure that digital innovation is at the centre of forthcoming health reforms. The Department of Health and Social Care must build on the momentum generated over the course of the pandemic to drive substantive cultural and practice change towards digital-first healthcare provision. The Department must also ensure that the new legislation for Integrated Care Systems facilitates the development and adoption of innovation by creating a digital and data ecosystem.

## 2. Empower patients to become informed co-creators of their own health.

There needs to be a sustained emphasis on engaging patients and improving access to their data. This requires a re-framing of patients from passive recipients of care to

empowered, informed decision makers and co-creators of their own health. Citizens should have the digital tools to drive their own care and should be involved in the development of new forms of digital and data enabled healthcare.

## 3. Implement a prevention-first approach.

The Department of Health and Social Care should implement the commitments made in the 2019 Green Paper *Advancing our health: prevention in the 2020s*. This is particularly relevant given the stark impacts of health inequality, evident during the pandemic, and the clear potential of digital models of care and applied use of data as potential solutions. These commitments should be reflected in the forthcoming legislation setting out proposed reforms to the structure of health and care.

## 4. Legislate for better data access, interoperability and protection.

This framework should encourage and facilitate the safe sharing of data, supporting both individual patients and population health approaches. It must provide a framework for enabling data sharing between NHS and social care providers within Integrated Care Systems. NHS Foundation Trusts, primary, community and mental health care providers and social care providers should be consulted on the framework proposals. NHS Digital should be consulted on available data for health and social care providers and existing legislative, operational and policy challenges surrounding data access and operability. Future legislation must clarify the information governance landscape

and not create confusion or conflict with existing standards as set out by GDPR, the ICO or the Caldicott principles for data. New requirements should clarify rules and incentivise NHS trusts and Integrated Care Systems to improve data flows while ensuring the ethical use of data. NHS Digital should review the impact of COPI notices, introduced during the pandemic, on the sharing of data for direct care, planning and research, and consult with the public on streamlining processes to make enhancements to legislation and policy that will allow for a more robust framework to be developed.

## 5. Review effective digital solutions used during the pandemic.

The Department of Health and Social Care, NHS England/Improvement, NHS Digital and NHSX, in partnership with Care Quality Commission, should undertake a full review of digitally enabled solutions that were effectively implemented by clinicians and patients during the Covid-19 pandemic, with a view to developing long-term sustainable care pathways. This review should place particular focus on the uptake of virtual consultations and treatments, including online mental health services and digital therapeutics, and remote monitoring solutions, to develop long-term guidance for the use of such services. Emphasis should also be placed on evaluating the impact of these solutions on patient access, quality and outcomes, the widening digital divide, service costs, and assessing where citizens and patients have 'fallen through the gaps' in remote service delivery.

The review should inform the development of a longer-term plan for the evaluation of evidence and supplement the work of NICE in evaluating digital solutions.

**6. Map the role of digital in the patient pathway.** Building on the NHSX AI Lab multimorbidity programme, NHS England/Improvement should begin mapping the process by which technology integrates into end-to-end care programmes. This should be properly funded in the NHS Long Term Plan to manage the allocation of funds through commissioning and care pathways.

**7. Fund digital enabled transformation to level-up services.** The Department of Health and Social Care and NHS England/Improvement should review funding models for local digital innovation to ensure funding levels (capital and revenue) are appropriate to meet locally agreed digital transformation and care innovation plans. On reflection of this review, the Treasury should sufficiently fund STP/ICS digital transformation plans to support delivery. This should be supplemented by discretionary funding for levelling-up those falling behind and to account for nationally led initiatives.

**8. Unleash the potential of personal health data.** Given the successful development of the NHS App during the pandemic, NHS Digital should scope options to embed it more widely across care pathways. The app should promote consistent and accurate health information, become a platform for innovation, and provide a reliable channel to other third party approved digital health and care services. NHSX should explore integrating data from the NHS Health Check and other sources into personal health records and the NHS App, allowing personalised tools and

health advice to be presented to the patient. NHSX should consult with Primary Care Networks on the development and implementation of this functionality.

**9. Promote a diverse and digital-centric leadership.** As Integrated Care Systems are established on a legislative basis, a radically different and diverse type of leadership is required to shape regional and national technology-enabled, multi-stakeholder population health ecosystems. Integrated Care Systems should broaden the criteria upon which leaders are appointed to promote inclusivity and ensure relevant training is developed to give leadership teams the knowledge and skills to lead complex systems while shaping the enabling digital and technology agenda. Leadership must be representative of the entire workforce of Integrated Care Systems. It must also be encouraged to share positive experience of digital innovation at the local level with other systems to stimulate more widespread adoption of evidenced best practice. Additionally, new legislation should make a commitment to ensure CIOs and CCIOs are represented at a board level for all Integrated Care Systems in England.

**10. Put data at the centre of decision-making.** Integrated Care System leaders should be encouraged to place data and evidence at the heart of decision-making by building strong links between healthcare providers, local authorities, patients and other arm's length bodies to ensure the necessary information is available to both the system and individuals. New leadership should provide the tools and guidance to enable patients and healthcare professionals greater access to their data and health records.

**11. Reinforce a culture of innovation and collaboration.** NHS England/Improvement and Health Education England should build upon actions outlined in the 2020 report *We are the NHS: People Plan for 2020/21* to sustain and promote a culture of continual collaborative care, improvement and innovation. As a result of changing practices during the Covid-19 pandemic, learnings from teams across England should be assessed. The Department of Health and Social Care should strengthen strategic relationships with external partners working towards a digital and data-enabled healthcare future and provide greater clarity over the accountabilities and responsibilities of different arm's length bodies (ALBs) to deliver solutions and take leadership.

**12. Implement learnings to develop digital skills.** Training standards and criteria should be updated to ensure the necessary skills are in place to support digital-enabled transformation and changes in practice at the local and national level. This must build upon the actions of the NHS England/Improvement report *We are the NHS: People Plan for 2020/21* and the recommendations of the 2019 Topol Review, incorporating learnings from the pandemic, specifically building and expanding the Digital Readiness Workforce programme and NHS Digital Academy, and uptake of Health Education England's e-Learning for Healthcare (e-LfH) programme, a new online Learning Hub. This will support the work of Health Education England in developing new skills, roles and functions for healthcare provision. New training resources should be made available for all levels of skills and training, 'building down' from the best practice demonstrated in the NHS Digital Academy.

# Section 1:

## Introduction

The NHS Long Term Plan (LTP) and the Department of Health and Social Care (DHSC), through the Secretary of State, Rt Hon Matt Hancock MP, have both identified the crucial role that the digital transformation of healthcare will play in our ability to meet the health and care demands of the 21st century. The Covid-19 pandemic and the dramatic national health and care response has thrust both public health and digital ways of working into the public spotlight. The rapid expansion of new forms of system collaboration and remote care has highlighted the need to rethink the ambitions of the digital and medical technologies agenda to best meet the needs of patients and improve outcomes.

Public Policy Projects (PPP) is pleased to deliver this *State of the Nation* report at a pivotal moment of reflection and planning for how we harness the transformative opportunities provided by digital and data enabled health and care. This report has been written as a collaboration between PPP and Future of Health, who's founders authored the highly influential *Health Beyond the Fog* report commissioned by the Royal Free Charity.

The report has drawn from the existing literature, as well as three roundtables, hosting senior leaders from across the healthcare sector and a dedicated panel session held at the Public Policy Projects Annual Conference 2020. Insights from these sources have been supplemented by over 70 interviews with experts from across the health and care sector, industry and the third sector. The scope for the content of this report has been directed its co-chairs Baroness Blackwood of North Oxford and Dr Harpreet Sood.

A broad range of disciplines and perspectives have been considered in the generation of this report, including perspectives from CCIOs and clinicians, as well as leaders in mental health, social care, community care, charity and third sector, life sciences, technology, research, digital health, social commentators and human development. More than 40 case studies from healthcare providers, service partners and industry have been collated and examined to inform the recommendations this report presents. Through best practice, learnings have been extracted and insights presented. These case studies have influenced the narrative of this report and framed its recommendations to healthcare policymakers and providers. It is hoped that the learnings from these case studies will be used to inform developments in healthcare provision and policymaking in the months and years ahead.

The digitisation of health and care covers a broad and complex landscape from healthcare provider IT to technologies that support improvements to wider population health. This report seeks to map out this landscape, frame key opportunities and identify areas for further development.

This report presents a collective narrative for development of digital and innovative technologies in the healthcare sector. It frames discussions that will help define the delivery of health and care in a technology enabled 21st century. Improving the health of a population is not something that any one institution can achieve by itself. Therefore, this report is designed to be used by public sector





policy and decision makers, senior thought leaders, industry and the third sector to turn examples of best practice into actionable insights. Progressive, meaningful action will require the collaboration of multiple system actors and wider engagement of the public to take these ideas forward.

The consolidation of this evidence and analysis would not have been possible without the cooperation and support of all who submitted case studies, attended roundtables, interviewees, consultants and researchers at PPP and Future of Health.

This report represents the first instalment (*Phase one*) of an annual report series supported by events, roundtable discussions and deep-dive policy documents aimed at implementing wider healthcare ecosystem collaboration. The launch of the first report on 16 February 2021 to Sarah Wilkinson, Chief Executive of NHS Digital and Lord James Bethell, Minister for Innovation at the Department of Health and Social Care, represents a milestone in the collective journey towards a digitally focused health and care sector. It is the collective ambition of PPP and Future of Health that individuals who attended the launch will take the recommendations and insights of the report on board and use the learnings to implement and deliver progressive change.

Stakeholders who have an interest in the digital enablement of healthcare services are invited to participate and support this important initiative as it continues to develop.

*Phase Two* of the report (to be launched later in 2021, hopefully coinciding with new legislation) will produce an implementation matrix for the delivery of the policy and strategic recommendations outlined in *Phase One*, in partnership with NHS Digital and NHSX following the launch event. The implementation of the ambitious recommendations outlined in this report will require whole-sector collaboration to analyse and propose a pragmatic plan and associated timeframes.

---

## Section 8: Case study List

CASE STUDY 1: ALEXA

CASE STUDY 2: 'SUGAR SMART' APP

CASE STUDY 3: ONEYOU CAMPAIGN

CASE STUDY 4: SLEEPPIO

CASE STUDY 5: VITALITYHEALTH

CASE STUDY 6: 29K

CASE STUDY 7: HEALTHIER YOU: NHS DIGITAL DIABETES PREVENTION PROGRAMME

CASE STUDY 8: OUR DORSET

CASE STUDY 9: TRIAGE-HF PLUS

CASE STUDY 10: MYKIOSK

CASE STUDY 11: CLOUD GATEWAY – SENSYNE

CASE STUDY 12: ECONSULT

CASE STUDY 13: UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST

CASE STUDY 14: CLOUD GATEWAY – QDOCTOR

CASE STUDY 15: NOURISH CARE – DIGITAL CARE MANAGEMENT

CASE STUDY 16: MIRADA MEDICAL

CASE STUDY 17: SIEMENS HEALTHINEERS

CASE STUDY 18: INTERMOUNTAIN HEALTHCARE

CASE STUDY 19: HEALTH HUB ACCELERATOR

CASE STUDY 20: EVERGREEN LIFE

CASE STUDY 21: NORTH LONDON PARTNERS

CASE STUDY 22: CONNECTED HEALTH CITIES

CASE STUDY 23: GREATER MANCHESTER DIGITAL PLATFORM

---

## Section 9:

# Acknowledgements

This report has drawn from the expertise of leaders and experts across the health and care landscape and, therefore, represents a synthesis of many hundreds of years of experience, thought and reflection. We have seen how digital and medical technologies and the data revolution that flows as a result, have huge potential not only to help improve today's health and care services, but also to reimagine how health and care can be delivered in richer, more meaningful and personalised ways. Technologies are being integrated into the very fabric of a new digitally enabled health and care system fit for the 21st century. This work could not have been delivered without the below individuals and organisations.

### Roundtables

Thank you to all who joined the report co-chairs for the series of roundtable discussions, hosted to debate the themes of this report. Contributors' insights have proved invaluable to its direction and outcomes. The report recommendations are a direct outcome of the concerns, suggestions and ideas generated in those sessions. All who attended are welcome to join for future discussions.

### Future of Health

This report was written, the interviews conducted, and the case studies analysed by Andy Wilkins, Founder of Future of Health. Andy drew on his extensive experience in digital healthcare to present the insights which emerged over hundreds of hours of interviews and discussion into this report.

### Public Policy Projects

This report is the direct result of the hard work and energy of the team at PPP. The report and its component parts were directed and delivered by Taome Jennings, Project Manager, without whom the results would not be possible. Other valuable contributions from:

Dan Male, Policy and Publications Director  
David Duffy, Senior Editor  
Anna Dickinson, Policy Analyst  
Charley Hacquoil, Policy Analyst  
Lottie Moore, Policy Analyst  
Genevieve Redgrave, Policy Analyst  
Rhea Soppelsa, Operations Executive  
Carl Hodgkinson, Senior Partnerships Manager  
James Hunt, Partnerships Director  
Ben Howlett, Managing Director

The report was designed by Joe Everley, 19-ninety.

## Section 10: Interviewees

We extend our thanks to the following people who kindly agreed to be interviewed in the preparation of this report:

Adam Higgins	Head of Digital Health and Patient Centricity	<i>Johnson and Johnson (Ex Astra Zeneca)</i>
Adler Archer	Researcher, Biomedical Informatics & Innovation	<i>Johns Hopkins Medicine</i>
Andrew Davies	Digital Health Lead	<i>ABHI</i>
Andrew Morris	Director	<i>HDRUK</i>
Andy Callow	Group CDO	<i>Kettering and Northampton Hospital Trusts</i>
Andy Haynes	Medical Director and Digital Lead	<i>Nottinghamshire ICS</i>
Ben Bridgewater	CEO	<i>Health Innovation Manchester</i>
Ben Hall	Strategic Client Executive	<i>Cerner</i>
Caitriona Walsh	Business Franchise Head Immunology, Hepatology, Dermatology	<i>Novartis</i>
Charlee Martin	Share2Care Programme Manager	<i>Alder Hey Children's NHS Foundation Trust</i>
Charles Alessi	Advisor to CEO/Chief clinical officer HIMSS	<i>PHE/ HIMMS</i>
Crystal Dennis	Operational lead for public facing digital health technologies incl Dorset's, Personal Health Record	<i>Dorset ICS</i>
Dave Snowden	CEO	<i>Cognitive Edge</i>
David Bates	Professor of Medicine & Chief of General Internal Medicine	<i>Harvard &amp; Brigham and Women's Hospital</i>
David Swedlow	Innovator and steward of transformation practices in collective wisdom	<i>The Stoa</i>
Declan Mullaney	Public Health Affairs Lead	<i>Livi</i>
Diarmaid Crean	Chief Digital & Technology Manager	<i>Sussex Community NHS Foundation Trust</i>
Dimitry Varsamis	Senior Policy Lead for Digital Primary Care	<i>NHS England</i>
Dominic Cushnan	Head of AI Imaging	<i>NHSX</i>
Emma Hoglund	Head of Commercial Excellence and Digital Strategy	<i>Novartis, UK</i>
Eric Lynn	Author, Founder & Change Expert	<i>cultureQs</i>
Esmee Wilcox	Head of Moving into Adulthood	<i>Former Suffolk County Council</i>
Gaby Silver	CEO	<i>CHS Healthcare</i>
Guy Boersma	Managing Director	<i>Kent Surrey and Sussex Academic Health Science Network</i>
Haris Shuaib	Senior Physicist	<i>Guys and St Thomas' NHS Foundation Trust</i>
Herbert Altmann	Head Patient Access Performance & Digital Innovation RE	<i>Novartis</i>
Iain Buchan	Executive Dean for Institute of Population Health Sciences	<i>Liverpool University</i>
Irfan Mohammed	Healthcare Strategy and Innovation Professional	<i>Novartis, UK</i>
Jackie Bisley	Owner & Principal Consultant	<i>PharmaBis Limited</i>
Jeni Tennison	Vice President and Chief Strategy Adviser	<i>ODI</i>

Jonathan Benger	Chief Medical Officer	<i>NHS Digital</i>
Karen Fox	Strategic Partnership Lead – Greater Manchester Future of Health digital accelerator	<i>Novartis</i>
Karen Kirkham	National Clinical Advisor Systems Development and Population Health Management & ICS Clinical Lead for Primary Care	<i>NHS England/Improvement &amp; Dorset ICS/CCG</i>
Kirsten Armit	COO	<i>Faculty of Medical Leadership Management</i>
Laura Wade-Gery	Chair	<i>NHS Digital</i>
Lisa Emery	CHCIO	<i>The Royal Marsden NHS Foundation Trust</i>
Malte Gerhold	Chief Integrated Care Officer	<i>Birdie</i>
Margaret Heffernan	Entrepreneur, Author and TED Speaker	<i>N/A</i>
Maria Santacaterina	Carer for father	<i>Member of public</i>
Mark Toms	Global Head, Evidence Excellence	<i>Novartis</i>
Matt Pattison	Founder	<i>TEN - Digital health design</i>
Michael Jackson	Director & world leading expert on systems thinking	<i>Centre for Systems Studies</i>
Mike Bewick	Chair	<i>CEECOPS</i>
Mike Short	Government Chief Science Officer	<i>Department for International Trade</i>
Nargis Ara	Medical Ethics and Compliance	<i>Independent Consultant</i>
Neil Testing	Director	<i>Richmond Group of Charities</i>
Nick Powell	Principal Consultant	<i>Visions4Health</i>
Partha Kar	National Diabetes Advisor	<i>NHS England</i>
Patrick Mitchell	Director of Innovation and Transformation	<i>Health Education England</i>
Paul Evans	Medical Director	<i>Faculty of Medical Leadership Management</i>
Paul Farmer	CEO	<i>Mind</i>
Peter Buckle	Principal Research Fellow	<i>Imperial College</i>
Peter Lees	CEO	<i>Faculty of Medical Leadership Management</i>
Ruth Agbokoba	Digital Transformation Lead	<i>NHS Improvement</i>
Ryan Irwin	Population Healthcare Executive	<i>Cerner</i>
Sarah Knight	Market Access Strategy Manager Ophthalmology – Lipid Management	<i>Novartis</i>
Sarah Wilkinson	CEO	<i>NHS Digital</i>
Shane Tickell	CEO	<i>Temple Black – Quantum Health Technologies</i>
Simon Dixon	Deputy Director of Design, Technology and Assurance	<i>NHSX</i>
Sridevi Kalidindi	National Clinical Lead, Getting It Right First Time, Mental Health Rehabilitation & Psychiatrist	<i>NHS England/Improvement &amp; South London &amp; Maudsley NHS Foundation Trust</i>
Stephen Critchlow	Executive Chair	<i>Evergreen Life</i>
Tara Donnelly	Chief Digital Officer	<i>NHSX</i>
Tim Hubbard	Head of Genome Analysis & Head of Dept of Medical and Molecular Analytics (KCL)	<i>Genomics England &amp; KCL</i>
Tina Woods	Convener and organiser of APPG	<i>Head of APPG for Longevity &amp; CEO of Collider Health</i>
Tom Denwood	CDO	<i>Population Health Partners</i>
Victoria Betton	Chief Innovation Officer	<i>Mindwave Ventures</i>

## Testimonials



“The insight gained from the PPP roundtable discussions and interviews revealed that there is a tremendous desire to embrace the new possibilities of enhancing health and care using technology, but also a deep frustration at the institutional and systemic barriers to working differently.”

**Dr Harpreet Sood**

Co-founder, NHS Digital Academy & Board Member, Health Education England

“The report calls for healthcare professionals, industry leaders, policymakers and the general public to think and act differently, looking to a future in which population health is empowered by innovative technology and data directs how healthcare is delivered in the 21st century.”

**Baroness Nicola Blackwood**

Co-Chair of the ‘State of the Nation; Digitisation and Medical Technologies’ report, Chair of Genomics England, Honorary Professor of Science and Public Policy at UCL, and previous Minister for Innovation in the Department for Health and Social Care



“If we are to generate better health outcomes for individuals and communities, the healthcare system must deliver higher-quality care in a less bureaucratic, more accountable way. The answer is integration. We must harness the full potential of digital technology and data. This report heralds the beginning of an ongoing cross-sector conversation on the future of digitally empowered healthcare. One that has never been more timely or necessary.”

**Rt Hon Stephen Dorrell**

Chair, Public Policy Projects and former Secretary of State for Health



To download a copy of the full report, please contact **[operations@publicpolicyprojects.com](mailto:operations@publicpolicyprojects.com)**.  
The report costs £1,500 for an individual purchaser, £4,500 for a corporate purchase.  
The report is free for public sector, third sector and PPP subscribers.



To become a **PPP subscriber**, please contact **[partnerships@publicpolicyprojects.com](mailto:partnerships@publicpolicyprojects.com)**