POLICY AND STRATEGY, DOCUMENT

Digital and data strategy for health and social care in Wales

To improve the way we deliver modern health and care services through technology and use of data.

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Ministerial foreword

Foreword by Minister for Health and Social Services

In this the 75th anniversary of the National Health Service, we look forward to the next 75 years and how the modernization of the NHS will be driven by digital, data, innovation and science in the coming decades. The COVID pandemic demonstrated how essential digital and data capabilities were to delivering Health and Care in the 21st century and the central role they will play in delivering a Heathier Wales.

This refreshed strategy, which I am pleased to share, builds upon our previous successes, and has been designed to embrace and account for the needs of a modern Health and Social Care service in Wales. By ensuring digital and data are at heart of our plans, we will be able to deliver a service to the country where everyone has longer, happier lives and are able to remain active and independent in their own homes for as long as possible. Establishing a whole system approach will deliver better quality care and achieve more equal health outcomes for citizens in Wales.

Exciting new medicines, technologies and improved ways of working are beginning to be introduced, saving and extending the life span of our loved ones, or massively improving our quality of life. The NHS Wales App, and its accompanying website, is an example of transforming the way patients engage with Health and Social Care services in Wales. Through the App, patients who are registered with a GP can access their summary health record and view their health history, order repeat prescriptions, view past GP prescriptions as well as book, view and cancel appointments with practice staff. The App will also provide greater transparency regarding waiting lists, facilitate patient interaction with secondary care clinicians pre- and post-surgery, as well as introducing a hybrid mail solution for digitising letters and communications.

On-going investment in modern infrastructure will continue, to ensure all clinicians have access to the right information at the right time for all their patients to improve patient safety and care. In addition, we will improve our data resources to allow us to fully embrace the incredible opportunities AI presents, along with genetic innovation and precision medicines to transform the way we interact and deliver NHS services.

The Strategy also articulates Welsh Government's desire to ensure the development of our digital and data services is focussed on carrying out user research and engagement, establishing national digital and data standards, incubating innovative pilots alongside development of Once for Wales national services.

In combination, by harnessing these digital transformation attributes, the Strategy will result in improving the way we deliver Health and Social Care to our citizens by their participation in and use of cyber resilient, effective and value for money services. Technology will enable and support our citizens across Wales to receive care closer to home and to better manage their own health and care conditions.

I urge all our dedicated staff and stakeholders to embrace the Strategy's principles and to actively participate in its implementation. By removing silos, placing our citizens at the heart of our services and working in partnership across sectors, together we can work on the challenges ahead and so create a brighter future for our citizens and for the staff that work so hard in order to deliver the best possible care to support all of us in leading happier and healthier lives.

I want to express my gratitude to all the individuals and organisations that contributed their expertise, insights and feedback as we developed this Strategy. It is through our collective efforts that we have been able to develop a robust and forward-thinking plan designed to help make a tangible difference in the lives of our Welsh citizens when they interact with our Health and Social Care

digital services.

In aligning our policies, investments and actions with the Strategy's principles, aims and missions, I look forward to witnessing the positive impacts we will be able to achieve through developing a modern approach to the digital transformation of our Health and Social Care services.

Baroness Eluned Morgan, Minister for Health and Social Services, Welsh Government

Executive summary

This sets out the Welsh Government approach to digital and data through its Digital and Data Strategy for Health and Social Care. It is a refreshed document that builds on the strategic direction set out in our 2015 strategy which has been a key enabler of A Healthier Wales. It is designed to deliver our core vision to help people in Wales to lead happier, healthier and longer lives through user-centred digital services built upon better digital skills, partnerships, data and platforms.

It is in response to a number of strategic challenges:

- ongoing recovery of the NHS and social care post-pandemic pressures
- rising demographics across our population and more complex co-morbidities
- financial constraints for citizens and organisations driven by cost-of-living crisis
- raising expectations by citizens for digital services but increased risk of digital exclusion
- a competitive market for the digital and data workforce

But we have the opportunity to respond to the challenges through:

- using technology to optimise and standardise in order to reduce variation in health and social care provision and outcomes
- taking advantage of emerging technologies and sciences like Artificial Intelligence and genomics
- enabling our digital workforce to drive forward change in health and social care delivery
- continuing our journey to improve how we share information across health and social care provider settings
- utilising and curating data to underpin population health management and demonstrate the value and benefit of our investments

We are building on the successes of our first all-Wales Informed Health and Care: A Digital Strategy for Health and Social Care (2015) through:

- establishment of Digital Health and Care Wales that is helping and supporting the way digital health and social care services are delivered using digital technology, data and standards
- development of the National Data Resource Strategy and Programme which is intended to bring clinical information together at the right time for the right people
- the Digital Services for Patients and the Public Programme is coordinating the delivery of digital solutions and health and social care applications for patients and service users across Wales, including the NHS App
- the Welsh Nursing Care Record that allows nurses in adult in-patient settings to complete online patient assessments in real time
- the successful digitisation of the medicines management journey in primary and secondary care that is now known as the Digital Medicines Transformation Portfolio (DMTP)
- a new Radiology Information System (RIS) and Picture Archiving and Communication System (PACS) was deployed to give clinicians secure digital access to images, irrespective of the originating

- organisation
- the Welsh Clinical Portal was extended to provide a shared view of individuals' digitally held record, accessible across the boundaries of organisations and settings to support safe, effective care

The core aims of our Digital and Data Strategy for Health and Social Care are to:

- transform our digital skills and partnerships
- build digital platforms that meet the needs of Wales
- focus on making services digital-first

Our delivery plans will be delivered around six missions:

- digital skills - developing our workforce to have the skills and confidence they need to make the most of digital services and improve care.
- digital economy - partnership with health and social care providers, academia, and the private sector to create added value, accelerate innovation and strengthen the economy of Wales
- data and collaboration - working to ensure high-quality data is available to inform every part of health and social care delivery and support digital services
- digital infrastructure and connectivity - developing a secure, stable and sustainable foundation for seamless sharing of health and social care data in support of agile, digital services
- user-centred services - deliver high quality digital services designed around the needs of the citizen, professionals and services
- digital inclusion -.equip users with the access, skills and confidence to engage with digital health and social care services based on their specific needs or preferences

Key delivery actions that underpin our strategy include:

- launch and ongoing development of NHS Wales Application to support

citizens management of their health

- accelerate delivery of national data resources so they are accessible and usable for all health and social care bodies
- wider roll-out of centres of excellence to create a digital ready workforce
- continued roll-out of electronic prescribing and medicines across health and care
- implement and embed standards across digital health for data, interoperability and procurement

Underpinning this will be a focus on:

- an open, interoperable and more resilient infrastructure
- standardisation and optimising how we work
- identifying opportunities to modernise infrastructure to support further transformation
- a user-centred approach to development of services
- co-development and partnership working to implement digital strategies

To deliver our strategy across Wales we will:

- work with colleagues from across local authorities, health boards, academia, and the private sector
- work to develop funding models that will support a more sustainable investment framework
- strengthen governance to ensure a coordinated portfolio approach to managing our programmes of work
- work with colleagues across the UK, and internationally, to lead and grasp the potential of digital and data technology for better health and social care outcomes

We will know we will have delivered our Vision when we can confidently say that:

- citizens feel more empowered to manage their own health through improved digital tools
- our workforce has the right information at the right time to deliver better care
- clinicians are spending less time on administrative tasks and more time with patients
- we understand the value delivered by digital and technology investments
- data is used to deliver insights to support delivery of a learning health and care system

Wales is in a strong position to continue to build on its work over the last decade that has allowed it to respond effectively to the pandemic challenges. This refreshed strategy is designed to support the ongoing pressures across health and social care post-pandemic and to respond to these challenges.

Mike Emery
Chief Digital Officer for Health and Social Care.

Introduction

The ambition of '**A Healthier Wales**', published in 2018, and the supporting National Clinical Framework, is to deliver a whole system approach to health and social care in which services are only one element of supporting people to have better health and well-being throughout their whole lives. It will be a 'wellness' system, which aims to support and anticipate health needs, prevent illness, and reduce the impact of poor health. We aim to bring health and social care services together and to ensure they are designed and delivered around the needs and preferences of individuals, with a much greater emphasis on keeping people healthy and well. In 2023 that goal remains as relevant as ever. Events and the impact of the COVID-19 pandemic have demonstrated the benefits and need for digital and data transformation across health and social care. To date, Welsh Government and our NHS and Social Care delivery

partners have made excellent progress in beginning to realise this ambition through the 2015 A Digital Health and Social Care Informed Heath and Care; A Digital Health and Social Care Strategy for Wales (gov.wales) (for additional information, please see Annex A Comparison between 2015 and 2023 Digital Strategies including record of delivery achievement resulting from the former).

During this realisation it is recognised that our system of delivering joined-up health and social care across the country needs further change to be achieved. Improvements in data quality, accessibility, inclusion, and standards require further development and more collaboration if we are to deliver on our ambition.

Accordingly this refreshed Digital and Data Strategy has been written to support and accelerate the transformation laid out in 'A Healthier Wales', successful delivery of the 2015 Strategy and also to align with the clear direction set out in 2021 '**A Digital Strategy for Wales**'. We have developed this refreshed Digital and Data Strategy for Health and Social Care in collaboration with stakeholders and delivery partners across the systems to further build upon what has already been achieved, to support organisations and programmes, and to provide a clear direction of travel of the digital and data transformation journey.

Furthermore, aligning the aims of this strategy with National Clinical Framework plans will also put the people of Wales's needs above organisational interests and help deliver prudent, value-based healthcare. Specifically, this strategy will help improve population health, well-being and deliver better quality of interventions. It will help make services more accessible, secure and centred on people and their needs by optimising the use of digital services and health and social care data.

The successful implementation of this strategy directly supports the quadruple aims outlined in 'A Healthier Wales'. Firstly, it will leverage digital and data to advance the quality of our health and social care services and improve the experience of users and patients. We will achieve this aim by designing our digital services together with patients, social care users and providers, and

clinicians. Secondly, the strategy will empower people to manage their own health and prevent disease through inclusive and user-centred digital services and strengthening our infrastructure and connectivity. This will help the people of Wales prevent disease and improve population health and wellbeing. Thirdly, we will achieve higher value health and social care by fostering innovation and rapid improvements, using agile and product approaches and facilitating data sharing across the system to harness the power of data. Finally, we will use digital services to support and take pressure off our workforce. We will work closely with clinicians and non-clinical staff to design services tailored to their needs and build a 'digital ready workforce' with the skills and confidence to make the most of these services.

The strategy is designed to provide a clear sense of direction for leaders and their delivery teams across health and social care in Wales. It brings together the collective efforts of local authorities, special health authorities, academia and commercial partners, **Llais**, health boards and trusts, education providers, the third sector and social partnerships.

Delivered well, digital services will put the people in Wales at the heart of all our health and social care services. It will help us move toward a system of personalised, co-designed services with a focus on prevention. The strategy will improve the collection and use of high-quality data which underpins digital services. This will enable informed and transparent decisions with clear accountability. The modern technology to deliver the data through the systems will enable a more accessible, safe, responsive, and intelligent system of health and care.

Our digital services will be designed and delivered with the aim of maximising social benefit. We will use agile based approaches with open architecture. Wherever feasible we will adopt open-source building blocks and cloud-based technologies. Our strategy will also underpin the digital skills development in Wales in an inclusive, intelligent way optimising academic thinking and learning from other nations globally.

Digital services in health and social care will be vital in supporting health and social care interactions through the creation of a data-enriched information network. This will include providing timely information and feedback channels to people, clinical and care delivery teams, and decision-making organisations. In turn, this will allow us to measure the outcomes that matter most to individuals and identify where to allocate resources to achieve them.

Background

Digital health and social care is about adopting and developing digital technologies to improve care workflows so that people can be treated faster, safer, and as close to home as possible. Digital health and social care is designed to give professionals more time by streamlining processes and to improve people's experience. When digital services are developed with people, patients, and users as the priority they will significantly improve health and social care outcomes. Digital includes digital methodologies and approaches, such as agile delivery and user-centred design.

Our focus will continue to be on transformation, innovation, and best practice implementation, knowing that our current health and social care system has a strong foundation to build on. Since 2015, we have made significant progress and investment in our workforce, organisations, infrastructure, and architecture. For example:

- We have set a strong policy direction with 'A Healthier Wales', which was considerably strengthened, in early 2023, through the appointment of a Chief Digital Officer (CDO) for Health and Social Care within the Welsh Government and NHS Wales and the establishment of their Office. This Office of the CDO has a whole system remit to encourage, champion, and support digital and data transformation across health and social care in Wales. It will advise Welsh Government on strategy implementation, lead the

digital profession in health and social care, and be a champion for digital health and social care in Wales.

- We established Digital Health and Care Wales (DHCW), a new NHS Wales organisation focused on transforming the way digital health and care services are delivered using digital technology, data, and standards.

We continue to establish a portfolio of national and local programmes focused on reviewing and improving our data and infrastructure. Each of these will help us roll out digital health and social care services more efficiently and deliver better care outcomes faster. Some of our key national programmes, to date, include:

- The National Data Resource (NDR) programme. This is a strategic initiative to help transform health and social care in Wales through a more connected and collaborative use of data.
- The NHS Wales Cyber Resilience Unit, hosted by DHCW. This provides assurance and guidance for operators of essential services in health across Wales. It also provides specialist support, advice and guidance to Welsh Ministers in relation to the Network and Information Systems (NIS) Regulations 2018.
- The Digital Services for Patients and the Public (DSPP) programme established in March 2021 is helping to coordinate the rapid delivery of digital solutions and health and social care applications for patients and service users across Wales, including the development of the NHS Wales app.
- The Welsh Nursing Care Record (WNCR) went live in 2021 across several Welsh health boards and trusts. It allows nurses in adult inpatient settings to complete an online assessment form at a patient's bedside.
- The Welsh Patient Administration System (WPAS) and the TEC Cymru and Cross Border Pathways programmes have all improved the implementation of new technologies, functionality and data sharing across care organisations.
- Microsoft Office 365 Centre of Excellence – supporting our workforce by

modernising ways of working in security and collaboration across health and care settings.

- The Digital Medicines Transformation Portfolio (DMTP) will make the prescribing, dispensing and administration of medicines everywhere in Wales, easier, safer, more efficient and effective through digital transformation and functionality.

There is also continued and ongoing investment in infrastructure and digital capabilities across Wales, from delivery organisation capability through to datacentres, networks and devices. We will build on the findings from:

- The Digital Architecture Review (DAR) - This was a major review of digital delivery in Wales that made wide-ranging and inter-dependent recommendations requiring a phased approach to changes.
- The All-Wales Infrastructure Programme (AWIP) - Which aims to develop common standards and principles across NHS Wales for all aspects of digital infrastructure such as the use of cloud, digital identity management and digital networks.

In line with Welsh Government's transition from pandemic to endemic and ongoing management of COVID-19, we must continue to learn from the experience of our pandemic response as well as other global organisations and adopt lessons identified [**footnote1**]. We will feed these into our business-as-usual activities to improve health and social care services for all users.

What will health and social care look like if we pursue this strategy and the aims below

People will be able to look after their health and well-being more easily and in a way that works for them and their circumstances. Everyone, irrespective of language or capabilities, will have access to a wider range of digital tools and services that will have been designed around them from the start at a location

and time that suits them. These services will help people understand how to manage their care, treatments, and health and maintain an independent quality of life. They need not provide the same information repeatedly.

Our health and social care workforce will become a data-enabled workforce. They will have the skills, confidence, and information to do their jobs more effectively with improvements in safety, efficiency, and quality. Digital services will be designed with them so they can deliver the best possible care in a way that supports their role and ways of working.

Our future digital services will give secure access to the right data at the right time by the right people. This means the appropriate care professionals will have better access to standardised, quality data and information. This will support decision making at all levels when they need it. Health and social care professionals will have access to systems and information to help them know what is happening, where, and how to deliver the best care outcome. As a result, people in Wales will receive more personalised care and support informed by accurate, trusted data. Better access and availability of data will drive improvements in performance and quality. Collaboration across Wales with our academic and commercial partners will also enable further partnerships and encourage new digital innovations. These will improve our health and social care system while reducing risks and lowering costs.

Health, social care, and third sector organisations will be able to work better together to create seamless service-user journeys and care pathways that deliver a better overall experience. They will be able to work across Wales to identify trends and patterns to improve preventative care, improve support, and adapt services to meet new needs.

Principles

We have already started to develop and launch digital solutions that are making a difference to the people in Wales such as Test, Trace, Protect, the Choose Pharmacy service and the Welsh Clinical Portal. But we want to do much more to avoid duplication of effort and build better services. Organisations across the world have shown that digital services are successfully delivered when key principles are consistently applied during development and implementation [**footnote 2**]. We have developed nine principles to help design and deliver our digital services. Our principles align with the Centre for Digital Public Services (CDPS) digital service standards and will be utilised in the development of health and social care digital services. Using our principles our digital services will:

Be user-centred, inclusive, and accessible

1.   Put health and social care services into people's hands through giving people access to their digital health and care records from the device of their choice. Make it easier for people to connect with health and social care services and provide joined-up services to improve current and future well-being.

2.   Inclusivity for all is built into every digital service developed.

3.   Embrace user-centred design (UCD) by communicating with service users and engaging them in the design and delivery of services throughout the process.

Empower staff and service owners

4.   Provide health and social care staff with modern and intelligent services with secure and relevant access to information about their patients and service users

wherever they need to work to support care provision and interactions. These digital services will be developed in conjunction with clinicians and front-line professionals, being ideally placed to identify systems and services that would most benefit from transformation activity in order to bring benefit to citizens and staff.

Use open, interoperable, and resilient infrastructure

5.   Prioritise using resilient, scalable cloud infrastructure and open architectures that allow people's health and social care data to be shared efficiently across health and social care providers.

6.   Use the most appropriate and secure technologies to support rapid interoperability between all partners in the most cost-effective way.

Establish trust in how we use people's data

7.   Use quality data to provide insight and improve how health and social care services are delivered and accessed by people legally, securely, and ethically. Build trust through a standardised, transparent approach to information governance.

8.   Ensure that our health and social care systems are safe and resilient, and that organisations are able to identify, protect, detect, respond, and recover from cyber threats.

Standardise and optimise how we work

9.   Iterate then improve our services frequently, working across organisations and using multidisciplinary teams. Consistently use design and technology

standards in the development and implementation of digital services to allow for faster development and continuous improvement. We will adopt an agile approach and work adaptively so that we become a learning health and social care system to better support and respond to the health and social care needs of people in Wales.

10.   Use digital and data to optimise and standardise workflows, reduce variation to improve outcomes for patients, and support our workforce.

Three key aims to help Wales get ready for digital

The vision needs every health and social care organisation to prepare and adapt for digital health and social care. Not every organisation is ready or able to build digital services using the above principles. There are several things required to help health and social care organisations get ready. There are three aims which will help each health and social care organisation get their staff, technology, data, and ways of working ready to deliver digital services using these principles.

Aim 1 - Transform digital skills and partnerships

Deliver digital-first services for health and social care. This requires the current and future workforce to think and work differently. We need to improve the digital literacy and the confidence of our workforce, developing the necessary skills to help them modernise care, deliver in an agile way and manage people's data. Helping the workforce to make the best use of new technologies also requires training.

We will use expertise across all of Wales to deliver better care outcomes and benefit our economy. We will engage with partners in the commercial sector and

academia to innovate and improve interventions. We will work in partnership between care organisations and the private sector using the best, most cost-effective solutions to deliver the best care outcomes. We will address this through:

1. Digital skills

Our workforce will have the skills and confidence they need to make the most of digital and improve care.

2. Digital economy

Partner with care providers, academia, and the private sector to create added value, accelerate innovation and strengthen the economy of Wales.

Aim 2 - Build digital platforms fit for Wales

High-quality data is a key component needed to deliver integrated health and social care. It also needs to be shared easily and seamlessly between organisations when they need it and in near real-time. Managing people's data means our platforms and infrastructure need to be secure, resilient, and accessible only to the appropriate people in care organisations. They must be fully interoperable and able to share information across healthcare, local government, and approved providers as well as the research and innovation communities. We will deliver this through:

3. Data and collaboration

High quality data is available to inform every part of health and social care

delivery and support digital services.

4. Digital infrastructure and connectivity

A secure, stable, and sustainable foundation for seamless sharing of health and social care data in support of agile , digital services.

Aim 3 - Make services digital first

Wales will adopt a fully inclusive, digital-first approach when delivering health and social care services. Users will enjoy access to digital services that have been designed and built with and for them. This will include new services and tools that will help them make decisions to improve their health and well-being. We will deliver these with:

5. User centred services

Deliver high-quality digital services designed around the needs of the user to improve health and social care outcomes.

6. Digital inclusion

Equip users with the access, skills, and confidence to engage with digital health and social care services based on their specific needs or preferences.

Collaboration and new ways of working

This is a strategy for digital and data in health and social care for all people in

Wales. It is essential that we continue to build on the collaborative approach which helped to make the pandemic response in Wales so effective. This requires joint working between bodies including:

- The Welsh Government will be responsible for health policy and setting priorities at the national level, and the Chief Digital Officer (Health and Care) will define national standards and drive transformation across the whole system.
- NHS Wales, local authorities, primary care clusters, and other delivery partners such as Tec Cymru and including the third sector. These are the organisations responsible for delivering digital services to people in Wales as part of our whole system of health and social care.
- Digital Health and Care Wales is the leading health and care digital services delivery organisation who will be key in championing and implementing this strategy.
- The Centre for Digital Public Services (CDPS) and Chief Digital Officers for Welsh Government and Local Government will work alongside NHS Bodies and third sector care organisations to help create public services founded upon the needs of the people who use them.
- Universities Life Sciences Hub and commercial partners who are part of the research, innovation, workforce development and provision of digital products and services.

In addition to joint working, the current capital focused approach to funding should be reviewed taking account of HM Treasury's guidance on agile business cases [footnote 3] and the implementation of new financial reporting standards [footnote 4]. The current multi-year capital based financial model designed for sizable, fixed asset infrastructure investment needs to adapt to a more revenue-based dynamic cloud product offering. The need to act and develop products at pace with recurrent resources will necessitate new funding methodologies linked to good financial and commercial governance and benefit generation based on user outcomes.

Organisations moving to deliver digitally using the digital and data strategy principles will take time. This strategy frames the ambition to 2030, but actions should be planned and delivered in three-year cycles. This is the approach adopted for A Healthier Wales and the three-year Integrated Medium Term Plans across NHS Wales.

The vision, aims and missions set out on the following pages are a framework that NHS Wales and Local Authority organisations should use to plan their actions, and which will be promoted with partners as part of a coordinated whole system approach. It is expected that this strategy will be reflected in Integrated Medium-Term Plans from 2023, and fully embedded as part of NHS planning and performance by 2024. Furthermore, it is anticipated that there will be a review of progress against this refreshed strategy in 2025 and updated priorities and actions for the next three-year cycle will take effect from 2026.

This section of the strategy outlines the missions that underpin our aims in more detail and describes the approach and activities to be undertaken.

Aim 1 — Transform digital skills and partnerships

Mission 1 - digital skills

We will:

- Provide training and support to create a 'digital ready workforce' across health and social care, which has the skills and confidence to use digital and data services to their full extent at every level, from the workforce of the future through to senior leaders.
- Support the public and patients by promoting digital literacy and making digital services easier, informed by user design.

- Strengthen the digital health and social care profession in Wales through training and recruitment targeted to future needs.
- Use a Centre of Excellence (COE) approach to develop deep professional expertise in key areas: agile user-centred design, Microsoft 365, Cloud, data insights and information governance.
- Commit to building skills across health, social care and the wider public sector using a master staff index to track and audit skills, capabilities, and expertise.

We are committed to helping and empowering our workforce to deliver digital health and social care services effectively. Training, re-skilling, and partnerships are vital if we are going to make digital health and social care services work.

By getting this right, people will enjoy a more responsive, personalised care they feel comfortable and able to interact with.

As stated in Health Education and Improvement Wales (HEIW) 2020 Health and Social Care Workforce Strategy, better staff experience contributes to a culture of compassionate care and results in better care for the people we serve. We need to ensure that people have the skills and confidence to use those services to their full extent. We also need to design our user interfaces in ways which make it easy to get the best out of digital services. The traditional service desk and user training approach will not be scalable as we deliver more services digitally and on a wide variety of devices. The digital ecosystem will need to provide more personalised user interfaces. Therefore, our approach must be to support our workforce through digital literacy and make digital services easier to use, informed by user design.

For the people in Wales, we need to use this same combination, but with even more emphasis on good user design, and carefully targeted support to those who will benefit most from better digital skills. For example, people who manage long term conditions, who care for or are supported by friends and family, or who are determined or wish to make a significant lifestyle change to improve their

well-being.

We intend to develop the capacity and skills needed for the next five-plus years by re-profiling our digital profession through targeted recruitment and training across Welsh health and social care. Digital services can only be deployed effectively when we adopt a standard way of digital delivery. Partnering between HEIW, DHCW, Intensive Learning Academy (ILA), Social Care Wales and the Wales Institute for Digital Information (WIDI) can help develop skills nationwide by diagnosing and filling in digital, analytics and technology skills gaps across organisations. Working together we will design and implement digital skills development programmes for the future workforce. DHCW and local authorities can then promote a whole system adoption of broad-based digital skills training. These can be tailored based on employee needs and delivered by their specific organisations.

We will also support digital health and social care apprenticeship schemes and work with our higher education establishments to grow our digital, cyber and data capabilities. This will help attract new talent and skills to the health and social care sector.

In addition to existing mandatory information governance training, cyber security awareness skills will become part of mandatory training for new entrants into the workforce. Refreshers and education sessions will also be provided for our existing workforce.

We will utilise Centres of Excellence (COE) to grow our capability, skills base, and expertise. The COEs will be made up of several public and commercial partners such as DHCW, local authorities, the third sector and commercial suppliers. Together they will utilise a continuously improving, blended learning approach and act as long-term libraries of digital knowledge and capability. These will be shared and utilised across the whole of Wales to build new digital services and train the next generation digital workforce.

Our digital skills mission will deliver benefits including:

- Better health and social care outcomes through faster and more effective digital services supported by trained staff.
- Training delivered on a 'whole system' basis results in more consistency and a better understanding of digital platforms and services across health and social care.
- A better understanding of digital and what it can do leads to better feedback from users and better digital services to become a self-learning system.
- A stronger digital profession with more capacity and capability to develop in house services with agility and pace.
- Depth of expertise in key areas, strengthening technical understanding, commercial negotiating position, and driving new opportunities and innovation.
- A cyber aware workforce that makes services and data more secure, protects privacy and reputation therefore increasing the trust of the people in Wales.

Mission 2 - digital economy

We will:

- Continue to work with delivery partners to strengthen the digital economy across Wales with an emphasis on foundational economy approaches.
- Continue to use strategic relationships and partnering platforms to build capacity and capability in our supply chain.
- Continue to work with digital health partners across the UK and internationally to drive uptake of standards and improve services.
- Ensure procurement is led on an all-Wales basis by the appropriate body within health and social care to maximise long term social and economic value.

Our Foundational Economy agenda drives prosperity and other benefits. By purchasing goods and services from local suppliers we can strengthen the economy in Wales, reduce carbon emissions, create employment, and career pathways, and revitalise town centres and communities. Local supply chains can also be more resilient and sustainable and lead to clustering and networking effects. We need more digital skills and talent to achieve our ambitions for digital transformation. We will complement our workforce with external delivery partners, and this is also an opportunity to enhance the digital economy in Wales, adding health and social care technology to our clusters in the FinTech and creative sectors.

To achieve this, we will take a dual approach. Firstly, we will develop long-term strategic relationships with major supplier partners, such as global cloud providers and multinational software companies. We will draw on their depth of expertise and global networks to build our capability. Secondly, we will work with smaller local suppliers in ways which encourage them to grow with us in Wales. This will help give us early exposure to innovation and emerging technologies.

The focus will always be on protecting the public value and driving better outcomes for patients and service users, but where possible we will also support growth opportunities for Welsh businesses, as part of an integrated policy approach across government.

Higher education and world-class universities offer a rich, innovative stream of opportunities and talent to help take Welsh digital health and social care to the next level. Working with academic institutions, we can combine the data and expertise across health and social care with our universities' research, facilities, and capabilities to find new and improved ways of delivering better healthcare outcomes to the people in Wales.

We have worked closely with delivery partners across the UK during the pandemic, blending COVID-19 testing services in Wales and across the UK network of lighthouse labs, delivering a combined NHS COVID-19 app for England and Wales. This demonstrated digital and data can be used to deliver

health services across borders. It has also demonstrated how shared digital products can be tailored to their location and their preferred language.

Adopting common standards used across the UK and internationally enables patients to take their health records with them as they move from one system to another, which will support better care. We will continue to work with partners on standards and interoperability to support this work, with a particular focus on supporting cross-border care with NHS England.

We will continue to work proactively with the UK and international standards bodies and review our governance and infrastructure arrangements for adopting national standards in Wales. We will also ensure procurement is led on an all-Wales basis for digital service provision rather than by single organisations. This will be led by the appropriate body within health and social care and will be aligned with the Wales procurement policy statement. In particular, improving the integration and user experience of our digital solutions and applications, maximising the use of our procurement data to support decision making.

Our digital economy mission will deliver benefits including:

- More digital capacity and capability through a stronger and more diverse supply chain, with good strategic relationships.
- Better long-term social and economic value through coordinated procurement.
- More digital health innovations developed on open platforms, giving professionals and patients earlier access to better digital products and services.
- A stronger foundational economy which supports business growth and creates employment opportunities in Wales.
- Better care services across borders are enabled by digital interoperability and data sharing based on trusted standards.
- New insights and understanding are derived from research, leading to better medicines and interventions.

- A range of digital employment opportunities for people and students in Wales.

Aim 2 - Building digital platforms fit for Wales

Mission 3 - data use and collaboration

We will:

- Continue to develop a comprehensive single digital health and social care record for Wales.
- Continue to publish and implement standards-based rules governing access to a shared health and social care record for different uses including clinical care, planning, and managing health services, research, and innovation.
- We will consider delivery of a data promise which will support and clarify how health and social care data is used in Wales.
- We will consider establishing an NHS Wales Data Promise Unit to assure people in Wales that their data is managed safely and appropriately.
- We will consider establishing a data insights Centre of Excellence (COE) to develop the professional skills required to make the most of health and social care data.

Everything starts with data. People's data are the essential foundation of high-quality health and social care. Without comprehensive and well-defined data, there is no reliable information. Good information drives better clinical decisions, better planning of health and social care services, and better operational management. For the public, patients and social care users, good information helps to prevent illness, to manage long term conditions, and to speed up recovery.

Our services generate lots of data, but not all of it is held digitally, and not enough is shared across the Welsh health and social care system. Patients, service users, clinicians, and care providers need all the relevant information at the right time, in the right place, and presented in ways which can be easily understood. Digital services which consume data can promote the most relevant information, provide insights based on large datasets, and guard against errors and poor decisions. All of this reduces harm, improves quality, and drives better outcomes for individuals.

People are generating more valuable data with their personal devices. The use of smart devices is also growing across NHS Wales as part of health and social care delivery. This represents a significant growth in data volumes that must be actively managed. Clear data management, ethical data use and interoperability decisions will need to be made by digital service owners as the coordinated use of user data and smart devices increases. This will ensure the balance between using the right data from the right source and not overwhelming the system or care providers.

Wales has had a shared health record since 2016. We also have a single master patient index which has been used across Wales for several years. As part of responding to COVID-19, a Welsh pandemic record was created which held comprehensive data relating to the pandemic, assembled from multiple data sources, including beyond Wales. This real-time data was used clinically and informed policy decisions. The national sharing of data enabled modelling and forecasting of the spread of the virus and the planning of services on a daily and weekly basis. It helped the contact tracing service to achieve very high follow up rates, and it enabled Wales to deliver one of the fastest and most effective vaccination programmes in the world. It saved money and, more importantly, it saved lives. This now needs to be replicated for all health and social care services.

However, data only has value if it is of good quality and shared with the right care professionals at the right time. The National Data Resource (NDR) is

already in place. This is a modern, scalable data and analytics platform for Wales that will allow the management of data across all systems in or near real-time between health and social care organisations. The NDR will enable new reporting capabilities, real-time event analysis, data/decision models, and algorithms that facilitate automation and decision making to deliver better care outcomes.

As part of our whole system approach to health and social care, there also needs to be rules which clarify the requirements and safeguards needed to share and use highly sensitive health and social care data. To do this, standards-based rules aligned with citizens' views on ethical uses of data and standards will be published with the NDR programme for all data, tailored to different uses. For example, clinical care needs data which identifies the individual being cared for, whereas planning and modelling demand does not. A Data Promise is being considered that will support and clarify how and why data is used to deliver benefits. Moreover, a new NHS Wales Data Promise Unit will be considered to help assure and inform people about the use of their data and how information is managed.

The primary focus will be health and social care data held by NHS Wales. Principles, rules, standards, and processes will be designed in ways which can be extended to other delivery partners, particularly in social care. This will be challenging because social care services are delivered by a mixed economy of public, private, and voluntary sector organisations of all sizes. Delivering a single health and social care record and a whole system approach will require finding ways to safely receive and share data with all providers.

Promoting the importance of data is part of our commitment to a 'digital ready workforce' as set out in HEIW's 'Health and Social Care Workforce Strategy'. Alongside this work, a data insights COE will be created. This will help develop deep expertise in a small number of priority areas and will complement the data nation accelerator led by a consortium of Welsh universities. We also need to support the public, patients and service users to understand, contribute to and use data. This will be accomplished through mechanisms including the potential

data promise and the NHS Wales app.

Our mission on data and collaboration will deliver benefits which include:

- Better information for clinical use, enabling professionals, service users and patients to make better decisions together.
- People in Wales will have greater access to their health and care records and the ability to share them with others.
- Agreed standards and rules set out clearly what data can be shared, with whom, and for what purpose, enabling sharing with health and social care delivery partners and supporting innovation, developed by Welsh Government in conjunction with the public's views on ethics and standards.
- High-quality data to inform planning through modelling and forecasting and provide real-time information to support operational management. Through this, health and social care services will be more efficient and sustainable.
- A clearer and consistent understanding of data sharing, data privacy, and information governance frameworks assured through a mechanism, such as a NHS Wales Data Promise Unit. This leads to a safer, appropriate and more confident use of information across health and social care.

Mission 4 - digital infrastructure and connectivity

We will:

- Ensure that digital infrastructure in all health and social care organisations across Wales has enough capacity to support digital services, and is secure, resilient, and environmentally sustainable.
- Consider strengthening performance and resilience through an NHS Wales IT operations centre, which will monitor and protect all digital platforms and services.
- Where appropriate, transition data, infrastructure, and services to the cloud,

upgrading legacy products to modular 'cloud-native' architecture where possible.

- Establish a Cloud Centre of Excellence (CCOE), to develop the skills needed to manage cloud services and commercial relationships.
- Bolster cyber security and resilience across our health and social care systems and supply chain by implementing effective governance structures and policies, adopting and setting standards, and training our workforce.
- Build a fuller register of digital infrastructure, from datacentres to devices, from national to local, to enable planning for and funding of digital infrastructure investment requirements.
- Investigate the assessment of organisational digital maturity in order to support need for future digital investment.

All digital services need a solid and stable infrastructure: datacentres, servers, networks, broadband, organisation desktops and devices. We need to ensure the cyber security and resilience of every part of our digital platforms, whether they are managed locally or nationally, operate as a single integrated system. Currently, if a key part of this infrastructure fails or is compromised, some digital services may become unavailable, and we cannot deliver high-quality health and social care.

We will continue the implementation of the open data architecture for NHS Wales and define consistent approaches to legacy infrastructure, technical cloud adoption and wide and local-area networking. We will describe key elements of our digital infrastructure as 'architectural building blocks' and establish system rules which drive standards-based interoperability between platforms and services, through common Application Programming Interfaces (API). In addition, we will map out and catalogue our digital landscape to help future planning and development of new digital services.

Welsh health and social care are part of the digital era enabled by the growth of cloud-based resources. The digitalisation of health and social care delivery is dependent on the emergence of a real-time health system, which leverages

scalable cloud and integration technologies extensively. We will deploy cloud and integration services strategically with our existing services where appropriate. We plan to help organisations overcome cloud adoption barriers by utilising a risk-based approach. A CCOE will be formed to capture lessons, develop good practices, and mitigate risks for organisations moving to digital services based in the cloud. The CCOE will also help to grow our workforce capability and improve our skills base and expertise for effective cloud adoption and support by identifying the organisational capabilities, roles and skills required for success.

We aim to deliver safe and high-quality care for patients in the most effective ways. Digital technology and telemedicine will be used to underpin commitments to mitigate against climate change, increase efficiency, and reduce physical travel. We must ensure that the Welsh workforce will be supported with the digital infrastructure to facilitate different ways of working – this can help deliver the Welsh Government's target for 30% of the Welsh workforce to work remotely. Through this approach, protecting our infrastructure becomes even more important. More and better digital services mean we will rely even more on them being available around the clock and across the whole system. More integration between systems and more people accessing them increases vulnerability, and we know that cyber threats are increasing in number and sophistication. It is of critical importance that we maintain a modern infrastructure and take steps to strengthen cyber resilience.

To monitor system performance and cyber threats in real-time we will establish a 24/7 NHS Wales IT operations centre, which will provide live views and alerts on all our digital platforms and services, at the national and local levels. Issues will be detected as early as possible, acting immediately to protect vulnerable systems or to repair anything which has performance issues.

Mandatory staff training will be provided to raise understanding of cyber security across the workforce. New digital services require protection and a workforce that understands the ever-changing threats. Effective security awareness

training will help the workforce understand cyber hygiene, the security risks associated with actions, and cyber threats that may be encountered via digital services, email, and the web.

Ensuring the integrity and safety of our health and social care system requires driving our visibility of cyber risk to the appropriate level. It also requires advancing our ability to drive change effectively and at pace. To achieve it, we will enhance governance structures, accountability, and risk management processes. Health and social care organisations will see cyber as an essential element of their business risk and resilience management, assured where appropriate, for health, by the NHS Wales Cyber Resilience Unit and, for social care, supported by the relevant Welsh Government teams. We will also continue to adopt and set cyber security and resilience standards and improve information sharing across the system.

Our digital infrastructure and connectivity mission will deliver benefits which include:

- Strong, secure, and resilient infrastructure platforms which enable the delivery of all digital services and the sharing of information across services and sectors.
- The ability to adapt scalable cloud and integration technologies. This will allow a dynamic response to demand and the maximisation of value for money.
- Open platforms and architecture which accelerate software development and support innovation and research.
- More confidence in the security and resilience of infrastructure, through developing expertise and strengthening monitoring and management arrangements.
- Better understanding of our infrastructure and technology refresh cycle, so that modern up to date digital platforms are synchronised and maintained across health and social care in Wales.
- Reduction in our carbon footprint through digital and remote working.

Aim 3 - make services digital first

Mission 5 - user-centred services

We will:

- Continue to deliver services which are informed by user research, user design and user feedback.
- Implement an agile and user-centred design COE to capture our learnings, support organisations to adopt this approach and build nationwide expertise.
- Work closely with clinical users and networks to ensure that digital services support recovery and drive health and social care transformation.
- Build a full register of digital services, so that we can plan our strategic approach and development roadmap and resource requirements for each service.
- Ensure that the digital services we buy as commercial products comply with our digital standards, language, and system architecture.
- Increase our use of agile and product approaches for digital services which we will develop and deliver.
- Work with partners to drive innovation, particularly in Artificial Intelligence (AI) and data insights.

Future clinical and social care models are underpinned by a common set of standards and consistency that can be accelerated using digital services. This strategy will put in place several elements that will deliver those standards by involving people and care professionals together in making shared informed decisions. These are a key part of the commitments made in the National Clinical Framework and Value in Health programmes.

All health and social care organisations and our delivery partners should align with our principles which are a set of measures anyone can follow to make sure

that the needs of the user are always at the centre of the way services are designed and delivered. In addition, our digital services will comply with the law concerning accessibility to reduce inequalities in access to health and social care.

To that end, our digital services will be consistent, simple to use, accessible to everyone and provide feedback mechanisms so that people can tell us about their experiences. This includes patients, service users, users, and staff. Delivering digital services is about putting the user at the heart of the design using User-Centred Design (UCD). Our digital services will be based upon an explicit understanding of our users, their needs, and their environment. They will be driven and refined by user-centred evaluation, and feedback and will address the whole user experience. Our process will involve users throughout the design and development process and will be iterative.

Moving to this approach will take time. Many organisations will need to build up their expertise and skills through practice, testing, and innovation. We will build the base knowledge of UCD and the associated techniques for key business and IT leaders with a UCD COE.

We will also establish a professional development programme that includes training, workshops, access to experienced practitioners and supporting resources. As adoption progresses, this training will be extended and supported by the COE across the organisation and between partner organisations.

We will work with clinical and social care professionals much more closely using their experiences and knowledge to drive better delivery. As users of digital services, they will be critical in providing input into the design of services. Some will act as the product owner. They will be the primary point of contact on behalf of the users to identify the product requirements for the development team. Product owners will maximise the value of digital services and will deliver to users supporting recovery and driving health and social care transformation.

As our digital services grow, we will develop a register to support a whole system approach to health and social care. This will provide a full picture of the digital health and social care landscape and include information on the cost of services. The register will enable us to make informed decisions on opportunities to combine services, improve value for money and prioritise new digital services.

The development of new digital services will be prioritised with input from the service, workforce and centres of excellence. As digital health and social care services expand and the demands and experiences of people in Wales grow, there will be an ongoing need to continue to engage with commercial partners to buy in digital services we are unable to develop in-house. Commercial products bought to support or enhance digital services must comply with the ethos, Welsh language, digital standards, security, and system architectures. Moving to a digitally enabled health and social care system requires us to collectively work faster and adopt agile and product approaches to deliver them. Experience during COVID-19 and research shows that using agile ways of working across local authorities, healthcare and the third sector can deliver rapid results and benefit people faster. This will be the preferred way of delivering new digital services.

Not everything can be delivered this way or by us alone and we will work with commercial partners in areas where they have specialist expertise, for example in Artificial Intelligence (AI) or Robotics. Existing ways of implementing technology-enabled services may still be used for those services that do not align well with agile methods, carry the largest costs or have the highest risks.

Our digital services mission will deliver benefits including:

- Build services with people at the centre of design to ensure ease of use and a seamless user experience accessible across all channels (for example, mobile, desktop, call centre).
- Use the expertise of health, social care, and specialist professionals to design, drive, champion and implement new services based on domain

knowledge and skills.
- Align digital service provision with the National Clinical Framework and Value-Based Health and Care models to help deliver 'A Healthier Wales'.
- Consider the development of a revised funding model that supports multi-year operational investments and continuously improved digital services.

Mission 6 - digital inclusion

We will:

- Develop digital services which give people more choice about when, where, and how they access health and social care services.
- Provide digital services in both Welsh and English.
- Encourage the use of digital services by making them as attractive, safe and easy to use as possible.
- Develop digital services which improve provision for people with specific needs or preferences.
- Provide alternative channels (assisted digital channels) for those people that cannot or choose not to access services digitally.

Our ambition is to give everyone in Wales the opportunity, motivation, skills, and confidence to engage with health and social care services digitally. To achieve that, we will continue to work closely with delivery partners and across government to support a cross-cutting policy which improves connectivity, digital literacy, and confidence. For example, we will maintain our investment in the digital communities Wales programme, and we will work closely with the economy and digital portfolios in Welsh Government. We will also continue to urge Ofcom and the UK Government to deliver ultrafast broadband connectivity to all parts of Wales.

We will work hard to make our digital services as attractive and easy to use as

possible, particularly through engaging directly with users. This user-centred design approach will need to be broader than the digital service itself. Some people will not want or be able to use the digital service and the 'analogue' service must not be neglected; it must be as attractive and easy to use as possible, even if there are some things which only digital can do (such as personalisation or AI).

Our approach will draw on exemplars like the award-winning Welsh Nursing Care Records programme, which engaged successfully with users to standardise and streamline forms used in hospitals during the design phase. This improved the paper service and made digital development quicker and easier.

Digital services can also make better provisions for people with specific needs or preferences, for example, by meeting accessibility standards, providing text to speech readers, or alternative human-machine interfaces.

A digital approach can provide services in Welsh at scale. This will complement our Welsh language strategy for health and social care (More Than Just Words) and our strategy for Wales (Cymraeg 2050). For example, through multilingual user interfaces, interactive text and chat, and remote consultation and video services.

Our digital inclusion mission will deliver benefits including:

- More choices for people about when, where, and how they access health and social care services, which makes it easier for them to do so.
- Increased digital literacy, confidence, and inclusion using digital health and social care services.
- Provision for people with specific needs or preferences, providing those who most need it with better access to health and social care services.
- More health and social care services are available at scale in Welsh, treating the Welsh language no less favourably than English and providing more

opportunities to use Welsh.
- Access to digital services for all by adhering to the public sector accessibility regulations and related standards.
- Communications tailored for specific audiences to raise awareness of new digital health and social care services.

Strategy implementation

It is recognised this is an essential and ambitious strategy requiring leadership, collaboration and co-development between all parties to deliver so meeting the needs of those who use our services. Such collaborative working will enable the provision of cultural, technological and leadership elements required to deliver digital transformation and so successfully implement the strategy.

We will establish and co-develop delivery roadmaps against each Mission in partnership with the health and social care system, clinical and professional involvement so demonstrating leadership from across the sectors. We understand that successful delivery depends upon broad and engaged representation and we intend to involve and seek input from all key stakeholders through a programme of communication and engagement and as roadmaps and milestones are developed. This will include the input and involvement of partners from commercial, voluntary, academic and community sectors, and take into account positive learning from other countries and sectors.

We will adopt an agile approach when developing the roadmaps, identifying lead delivery organisations, resolving duplication and iterating approaches to ensure the greatest benefit to our services and their users. Underpinning the delivery roadmaps will be the establishment of governance structures that reflect the different levels of leadership required to support and champion delivery. This will include a strengthened national group with broad cross-sector representation to ensure and assure. Our portfolio of investments and initiatives deliver benefits

for the workforce and people of Wales and underpin and support the ongoing transformation of health and social care.

We are committed to transparency in how the strategy is implemented and will consider the most effective ways to ensure plans and activities are made publicly available so that citizens and interested parties can follow such progress. We will also focus on identifying and demonstrating the positive benefits that will arise from the implementation so ensuring that our programmes clearly demonstrate how they achieve the Strategy and its priorities.

Annex A - Comparison between 2015 and 2023 Digital Strategies including record of delivery achievement resulting from the former

Comparison of strategies

The below table simply compares the content included in the 2015 Informed Health and Care: A Digital Health and Social Care Strategy for Wales and in the 2023 A Digital and Data Strategy for Health and Social Care in Wales. It is evident that the last seven years of successful delivery has also resulted in increased digital maturity of our digital services development, of our delivery partners and in how Welsh Government has repositioned the importance of collaborative delivery. Furthermore, the original 2015 Strategy had a five-year lifespan which, due to COVID, was extended to seven years. In combination, it is appropriate and right that a refresh of this Strategy is produced taking into account successful delivery to date, increasing digital maturity, advances in digital technology and a more flexible approach in identifying and delivering Ministerial priorities within challenging delivery landscapes.

Comparing the 2015 and 2023 strategies

Content	Informed Health and Care A Digital Health and Social Care Strategy for Wales (2015)	A Digital and Data Strategy for Health and Social Care in Wales (2023)
Scope duration	5 years	3 years
Focus	• Incrementally implement and learn • Deep-dive reports on challenges	• Learning/evolving from previous journey challenges • Digital transformation is key to successful and improved health and social care outcomes • Strategic leadership • Prioritisation • Benefits realisation • Agile approach: do, learn, refine
High level vision and aims	This Strategy identified four elements of its vision: 1. Information for you - people connect using online information, apps and digital tools to support self-care. 2. Supporting Professionals - professionals use digital tools and improved access to information. Once for Wales approach to	This Strategy identified three aims: Aim 1 - Transform digital skills and partnerships. This aim will deliver digital-first services for health and social care. This requires the current and future workforce to think and work differently. We need to improve the digital literacy and the confidence of our workforce, developing the necessary skills to help them modernise care, deliver in an agile way and manage people's data. Aim 2 - Build digital platforms fit for Wales. This aim will deliver the management of people's data

Content	Informed Health and Care A Digital Health and Social Care Strategy for Wales (2015)	A Digital and Data Strategy for Health and Social Care in Wales (2023)
	support common standards and interoperability and access to structure electronic patient records. 3. Improvement and Innovation - make better use of available data to improve decisions and drive service change; work with partners to ensure innovation harnessed. 4. A Planned Future - digital HSC a key enabler of transformed services in Wales. Joint planning, partnership working and stakeholder engagement at all levels needed to prioritise opportunities and Strategy ambitions.	by ensuring our platforms and infrastructure are secure, resilient, and accessible only to the appropriate people in care organisations. They must be fully interoperable and able to share information across healthcare, local government, and approved providers as well as the research and innovation communities. Aim 3 - Make services digital first. This aim will enable Wales to adopt a fully inclusive, digital-first approach when delivering health and social care services. Users will enjoy access to digital services that have been designed and built with and for them. This will include new services and tools that will help them make decisions to improve their health and well-being.
Key changes	Not applicable	This strategy demonstrates an increased focus

Content	Informed Health and Care A Digital Health and Social Care Strategy for Wales (2015)	A Digital and Data Strategy for Health and Social Care in Wales (2023)
between the two strategies		on:

- Digital workforce (attract, recruit, retain)
- Improvement and innovation
- Artificial intelligence
- Co-development of services, informed by health and social care practitioners and shaped around user needs
- User centred delivery
- Use of agile methodologies
- An All-Wales approach and commonality of approach
- A collaborative approach to Strategy implementation

Delivery achievement post 2015 strategy

This provides a summary of successful delivery as a result of the 2015 Informed Health and Care: A Digital Strategy for Health and Social Care in Wales.

Redesigning services

Strategy action

Health boards and local authorities will plan jointly how services need to be redesigned and how new working practices will be introduced across unified

health and social care teams supported by the integrated Welsh Community Care Information System (WCCIS).

Delivery

WCCIS continues to be adopted by organisations, enabling the sharing of health and care data between settings to benefit the patient experience. Since 2020, 19 out of 29 organisations have been integrated.

Clinical information system

Strategy action

Staff working in hospital emergency departments will have a new clinical information system to support efficient working practices and reduce reliance on paper.

Delivery

Staff can access clinical care results, documents, including referrals, discharge advice letters, clinic letters, A&E attendances, GP letters etc., across geographic boundaries throughout Wales. Wales is one of the first countries in the world to achieve this.

Radiology image-sharing

Strategy action

From 2015, a new radiology image-sharing system will be implemented to give clinicians secure digital access to images, irrespective of the organisation from where the investigation originated.

Delivery

RIS (Radiology Information System) and PACS (Picture Archiving and Communication System) deployed across Wales.

Establishing a hospital pharmacy and ePrescribing system

Strategy action

Electronic medicines management, decision support and care-planning tools to support workflow and patient safety will be prioritised in 2016 to 2017 delivery plans. A new programme board will be established to lead on this work and begin the procurement of a hospital pharmacy and ePrescribing system for Wales.

Delivery

The digitisation of the Medicines Management journey, covering primary and secondary care as well as patient access and a shared medicines record, is well underway. Now known as the Digital Medicines Transformation Portfolio.

Welsh clinical portal

Strategy action

Welsh clinical portal will be extended to provide a shared view of individuals' digitally-held care record, accessible across the boundaries of organisations and care settings, viewable whenever and wherever it is needed to support safe, effective care.

Delivery

70% of referrals from primary to secondary care now take place electronically, radically speeding up the referral process and eliminating the cost of paper referrals.

Choose pharmacy sore throat test and treat module launched, allowing community pharmacists to test and diagnose patients before treating or recommending a course of action - thus reducing the workload of GP practices.

New Child Health System (CYPrIS) launched, ensuring that child health services keep pace with digital technologies.

Mobile version of Welsh clinical portal in pilot, allowing healthcare professionals to better manage patients in real-time.

Welsh point of care testing system introduced, allowing patient test results from a range of testing devices to be accessible via the Welsh clinical portal.

Online citizen's portal

Strategy action

An online citizens' portal where people will be able to view, confirm and edit their details.

Delivery

Patient access to their detailed coded GP record functionality is made available to GP practices in My Health Online.

Video calling

Strategy action

People should, where appropriate, expect to be able to use video-calling services for virtual appointments and consultations across health and care services.

Delivery

In 2020, NHS Wales and Welsh Government introduced the national video consultation service; this provided a facility for patients to engage with clinicians through a video call on personal devices. It also provided a facility for clinicians to seek support from specialist clinicians without a patient needing to attend another location.

Infrastructure programme

Strategy action

NHS organisations in Wales will continue to work with NWIS on the all-Wales infrastructure requirements.

Delivery

Hosted by Cardiff and Vale Health Board, the All Wales Infrastructure Programme (AWIP) deliverables support the adoption of a coherent and unified approach to the underlying architectural building blocks across health boards and trusts. AWIP provides the definitions, strategies and architectural 'patterns' that such platforms must follow.

Using national data

Strategy action

Focus on making better use of national data sources and local information to support informed decision making and improve service planning, population health, research and development.

Delivery

A national data resource strategy was developed in partnership and agreed with stakeholders across Wales. Delivery includes open architecture strategy, data strategy, procurement of the national data platform.

Annex B - Digital transformation activity in Wales

As part of our commitment to transparency in how the refreshed Digital and Data Strategy for Health and Social Care is implemented, we want our citizens and interested parties to follow our progress and to easily find and explore the benefits.

The information below sets out the different health digital transformation activities and programmes that Welsh Government fund to support the better health and care of Welsh citizens.

You can find summary detail of each activity, funding allocated, and find out more information about the activity through a link to external websites, where available.

We will be working with all our programmes to make sure there is a link to further detail of each activity over time.

Programme / Project 1: Digital Medicines Transformation Portfolio (DMTP)

Programme detail

The digital transformation of prescription and medicines administration processes across Wales; this work covers primary care (GP to community pharmacy), secondary care, patient access/tracking of prescriptions and a central repository of all prescriptions.

Funding allocated

£24.4m (Provision for further £21m over next two years subject to business cases)

Link to external programme/project

Digital Medicines Transformation Portfolio (on nhs.wales)

Programme / Project 2: Welsh Community Care Information System (WCCIS)

Programme detail

Set up in 2015 to provide integrated care across social services and community health, using a single system and a shared electronic record across local Authorities and health boards in Wales.

Funding allocated

£42m

Link to external programme/project

Digital Community Care Record website (on nhs.wales)

Programme / Project 3: Digital Services for Patients and

the Public (DSPP)

Programme detail

Delivering the NHS Wales app will give people 'on demand' access to their GP records, allow them to book appointments and access their health data.

Funding allocated

£27m

Link to external programme/project

Digital Services for Patients and the Public website (nhs.wales)

Programme / Project 4: Digital Cellular Pathology (DCP)

Programme detail

To procure and implement a digital cellular pathology for the primary diagnosis of histological specimens.

Funding allocated

Pending full business case

Link to external programme/project

[Digital Cellular Pathology website (nhs.wales)](#)

Programme / Project 5: National video consultation service

A programme run by TEC Cymru, the programme has implemented the video consultation service to clinicians across Wales (deployed in six weeks at the start of the pandemic), allowing them to interact with patients and colleagues remotely and more efficiently.

Funding allocated

£12.3m

Link to external programme/project

[NHS Wales Video Consulting Service](#)

Programme / Project 6: WPAS standardisation (Welsh Patient Administration System)

The predominant hospital patient management/administration system in Wales. The system is used by hospitals and clinics to manage patient pathways including managing inpatient and outpatient activities, ensuring relevant patient information can be accessed in different hospital departments.

Funding allocated

£7.5m

Link to external programme/project

Not currently available.

Programme / Project 7: Cancer (Canisc) Cancer informatics programme

A programme to develop the new Cancer Informatics Solution (CIS), built within existing digital platforms for use across Wales. The initial functionality is going live late in 2022, and by 2024, all cancer patient records will be delivered on a modern and resilient IT platform that enables greater integration of care and provides the relevant data to guide service development.

Funding available

£10.6m

Link to external programme/project

Not currently available.

Programme / Project 8: National Data Resource (NDR)

A strategic initiative which will provide a national data platform for health and care. It will significantly improve interoperability between health and social care systems and secure access for data analysis for service improvement.

Funding available

£23m

Link to external programme/project

National Data Resource

Programme / Project 9: All Wales Infrastructure Programme (AWIP)

AWIP deliverables will be fundamental in supporting the adoption of a coherent and unified approach to the underlying architectural building blocks across health boards and trusts, in order to provide consistency, certainty and security to NHS Wales projects.

Funding available

£4.2m

Link to external programme/project

Not currently available

Programme / Project 10: Hospital ePrescribing and Medicines Administration (HEPMA)

The Swansea Bay pathfinder for ePMA (part of DMTP), HEPMA is learning lessons for the other Health Boards and Trusts to consider when adopting ePMA.

Funding available

£958,300k

Link to external programme/project

Not currently available.

Programme / Project 11: Technology Enabled Care (TEC) Cymru

TEC Cymru are in the process of establishing themselves as the TEC Centre for Wales. TEC will provide the skills to identify and scale telehealth and telecare services on an all-Wales basis, backed by a strong research and evaluation function.

Funding allocated

£11.2m

Link to external programme/project

TEC Cymru website

Programme / Project 12: Digital ICU

The implementation of a single digital solution for the monitoring of patients in ICUs across Wales, this programme will be going live throughout 2023 and will make ways of working within ICUs more efficient.

Funding available

£8.1m

Link to external programme/project

Not currently available.

Programme / Project 13: WAST Ambulance Electronic Patient Clinical Record (ePCR)

The digitisation of the patient clinical record in ambulances, this programme has now rolled out a system to all Welsh ambulances to improve the clarity of

records generated by ambulance crews and assisting with improving handover times. Future improvements will extend access to community first responders and other involved groups.

Funding available

£5.1m

Link to external programme/project

Not currently available.

Programme / Project 14: Welsh Nursing Care Record (WNCR) -phase 2

A transformational programme to digitise and standardise nursing documentation for adult in-patients. The aim is to digitise all adult in-patient nursing documentation, ensuring consistency and completeness of the adult inpatient record.

Funding available

£5.1m

Link to external programme/project

WNCR - Digital Health and Care Wales (nhs.wales)

Programme / Project 15: Welsh Nursing Case Record (WNCR) – phase 3

To digitalise and standardise nursing documentation for paediatric inpatients. Programme being established April 2023.

Funding available

£1.8m

Link to external programme/project

Not currently available

Programme / Project 16: Office 365 Centre of Excellence

Pump-prime funding to establish the NHS Wales Office 365 Centre of Excellence, providing a team of Office365 experts to help health boards and trusts make the most of the O365 licencing that NHS Wales have purchased. In due course, this is intended to provide the same service for the wider Welsh public sector, joining up other public sector organisations with the knowledge they need to leverage the capabilities of O365.

Funding available

£2.03m

NHS Wales Microsoft 365 Centre of Excellence

Programme / Project 17: Laboratory Information Network Cymru (LINC)

This programme will standardise and introduce a new software platform for the pathology service into a modern single all-Wales system. By 2025, there will be an end-to-end digital pathology solution including electronic test requesting, results reporting, and notifications standardised across Wales, together with interoperability with other NHS systems.

Funding available

£19.8m

Link to external programme/project

Laboratory Information Network Cymru (LINC) - NHS Wales Health Collaborative

Programme / Project 18: Radiology Informatics System Procurement (RISP)

Procurement to deliver the vision of a seamless end-to-end electronic solution that enables the Radiology service to deliver a high quality, safe and timely clinical imaging service for the patients of Wales.

Funding available

£454,000k

Link to external programme/project

Not currently available.

Programme / Project 19: Eyecare

This programme is digitally transforming the referral from high street opticians to secondary care optometry consultants, making significant time savings and an improved flow of patient records between primary and secondary care.

Funding available

£4.8m

Link to external programme/project

Not currently available

Programme / Project 20: Vein to vein blood tracking

A discovery phase for an All-Wales solution to the tracking of blood products via digital means has now concluded, and proposals are being considered on how this can be taken forwards. This proposed all-country approach is unique to Wales.

Funding available

£93,614k

Link to external programme/project

Not currently available

Programme / Project 21: Powys Cross Border Pathways Programme

To support the efficient and effective referrals, discharges, reporting and data transfer of Welsh patients treated in England into Welsh systems to ensure safe and efficient care provision.

Funding available

£1.19m

Link to external programme/project

Not currently available

Programme / Project 22: Digital Maternity Cymru

A discovery exercise has been completed and proposals are being considered for how maternity services can be digitised nationally, giving patients and

clinicians better access to relevant data. Programme to be established April 2023.

Funding available

£7.47m

Link to external programme/project

Not currently available

Programme / Project 23: Digital Capability Framework for Healthcare in Wales

This programme is mapping the current and predicted digital needs of the non-digital Welsh professional workforce; developing proposals to evolve and expand the workforce with the digital skills and competencies the modern health and social care service requires now and over the next 10 years.

Funding available

£207,230k

Link to external programme/project

Not currently available.

Programme / Project 24: Digital Benefits Realisation,

Business Change Pump and Prime Funding

Recruitment of an effective community of expert practitioners in business change and benefits realisation to support all national and local digital transformation programmes and Projects across all Welsh Health Boards, Trusts and Special Health Authorities.

Funding available

£0.582m

Link to external programme/project

Not currently available.

Programme / Project 25: Digital change network

DHCW will develop a Change Ambassador programme: a short training scheme for staff of all grades and positions across the NHS to upskill them with clinical systems training, eLearning development, soft skills, professional competencies, change methodology and service improvements.

Funding available

£2.55m

Link to external programme/project

Not currently available.

Programme / Project 26: Child health transformation

A discovery activity to examine current ways of working across all health settings for children/young people and scope enhancements to digital systems to provide better access to relevant data.

Funding available

£40,000k

Link to external programme/project

Not currently available

Programme / Project 27: Vaccination transformation framework

An initiative to review and set strategic direction on continuously developing vaccination systems administered by the NHS in Wales, building on the work of the Wales Immunisation Service and public facing booking portal.

The portal is a service providing citizens with a digital way to rebook their COVID-19 vaccinations allowing them to plan their vaccination appointments around their commitments.

Funding available

Technical discovery, solution options and design £345,000

Annual support costs for the portal - to be confirmed

Link to external programme/project

National immunisation framework for Wales | GOV.WALES

COVID-19 vaccination programme | GOV.WALES

Footnotes

[1] As detailed in Health and Social Care in Wales – COVID-19: Looking Forward

[2] Gartner research – 'Use real-time health system principles to drive digital transformation' 10 May 2022, Barry Runyon, Gregg Pessin.

[3] https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent/agile-digital-and-it-projects-clarification-of-business-case-guidance

[4] IFRS 16 application guidance December 2020