



GIG
CYMRU
NHS
WALES

Iechyd a Gofal
Digidol Cymru
Digital Health
and Care Wales



‘Everyone in Wales should have
longer, healthier and happier
lives, able to remain active and
independent, in their own
homes, for as long as possible’
A Healthier Wales

How We Support That Vision

PLAN



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DIGITAL HEALTH AND CARE WALES



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Introduction

PLAN

DIGITAL HEALTH AND CARE WALES

2021/22

TRANSFORMING THE DELIVERY OF DIGITAL HEALTH AND CARE FOR THE PEOPLE OF WALES

We are very pleased to bring you our first Annual Plan as Digital Health and Care Wales.

Created to deliver digital transformation, our new organisation will provide the national technology and data services needed by health and care professionals and the people of Wales, helping us to achieve better health and well-being. Operating as a Special Health Authority with an independent Chair and Board, our new organisation replaces the NHS Wales Informatics Service, reflecting the importance of digital and data in a modern NHS.

A Healthier Wales, the Welsh Government's plan for health and care, identifies the development of digital services as key to delivering health and care fit for the future. We have seen how the rapid deployment of new technology has supported the NHS Wales response to the pandemic, but there is more to do so that patients and staff can benefit from the best that modern technology has to offer.

As the trusted delivery partner we now have the opportunity to build on our strong foundations and work in partnership with the wider NHS Wales family, public sector colleagues, patients and the public to support the wider system, with the advantage of scale when it matters, combined with an understanding of the health needs of our communities. As one of the few nations where a patient's data can follow them around the system, Wales is well-placed to put digital at the heart of health and care.

This is an exciting time and the start of a new era. Technology is evolving and the pandemic has demonstrated that it has never been more important for our NHS. Now we look forward to working together with patients and health professionals to innovate, move forward and make technology and data work for better health.

Our annual plan builds on the strategic approach that we published last year and sets out an ambitious portfolio of objectives which will continue to drive digital transformation for better outcomes. To achieve the vision of A Healthier Wales we will need to make significant progress in areas such as the National Data Resource, Cancer Informatics and Digital Services for Patients and the Public, whilst continuing to develop the wider needs required by the Covid-19 pandemic. We will also be relocating from one of our main data centres – some systems being located in the cloud and some into our new data centre. This will have an impact on resources and systems across the organisation, but will provide us with state of the art infrastructure to move forward with, as well as significant transformation opportunities. In addition to these key work plans we will also continue to prioritise the digital services which enable health and care staff to work day-to-day, and we will further our plan to support the recovery of services across NHS Wales.

Whilst we recognise that along with all NHS Wales colleagues we are often reacting to unforeseen requirements in a volatile environment, we have achieved a significant amount of digital transformation over the past twelve months, and have very quickly developed services that we could not have imagined a short time earlier. We owe this to our dedicated team of talented informatics professionals who have worked tirelessly to deliver in very difficult times. We look forward to the opportunities and challenges that lay ahead for the new organisation and to share in future successes as part of the NHS Wales family.

- We are a new NHS Wales organisation with new leadership focused on transforming the way we deliver digital health and care. Quality is at the heart of all we do.
- Working in partnership with the wider NHS Wales family, public sector colleagues, patients, the public, academia and industry, we are the trusted partner for modernising health and care through digital transformation.
- We will deliver to the people of Wales first-class digital health and care services which will enable more effective, efficient, safer decision-making, by providing access to content-rich, person-focused health and care data and information.
- Our digital health and care systems are behind every aspect of care and every patient encounter.



Helen Thomas (interim CEO)



Bob Hudson (interim Chair)

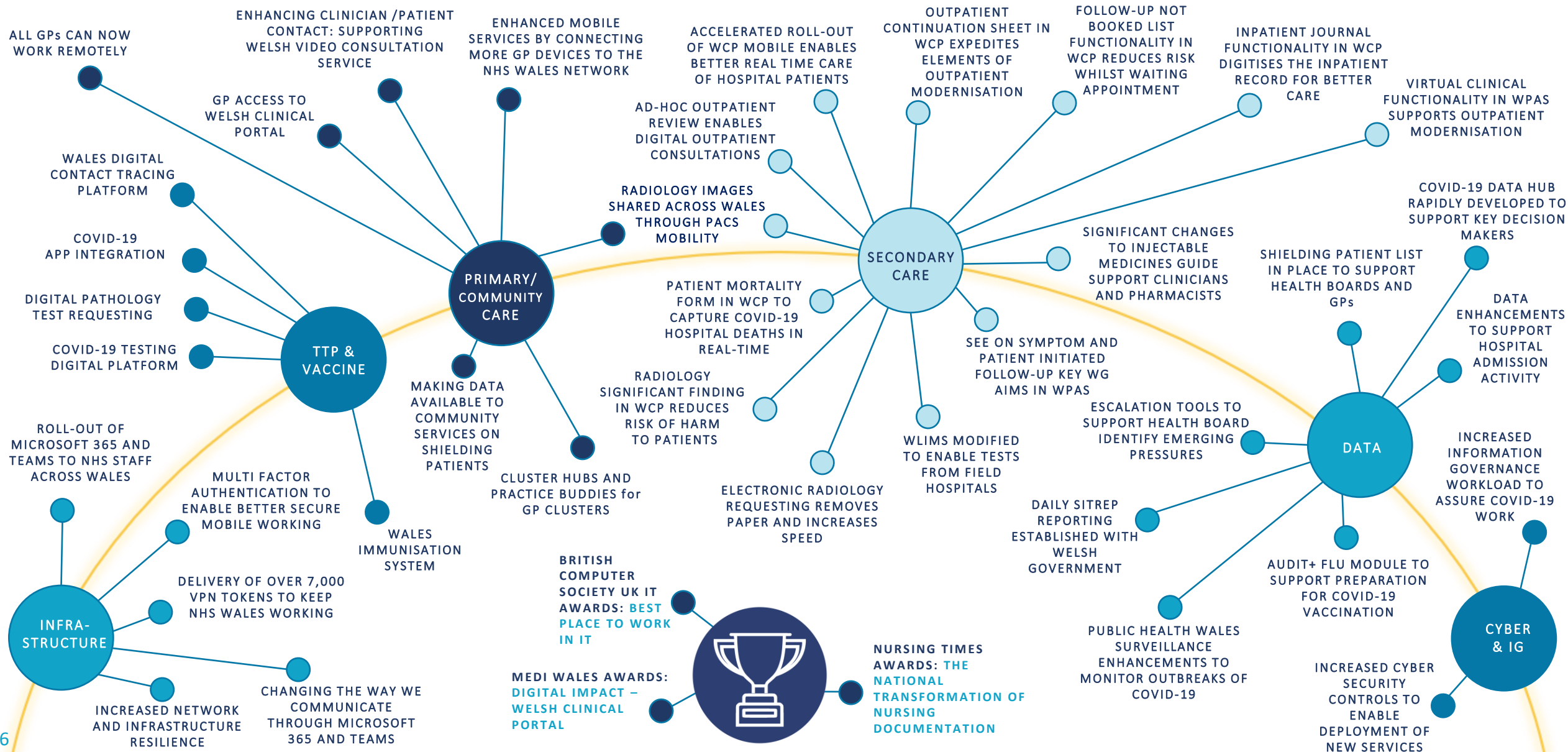
The Well-being of Future Generations (Wales) Act provides wide-ranging opportunities which will form the bedrock of how Digital Health and Care Wales expects to approach sustainable development, notwithstanding the digital requirements of A Healthier Wales; from improving opportunities to use the Welsh language, to striving for decarbonisation and maximising on social partnerships. We will set out our longer-term plan for sustainable development with our Board in the year ahead.

- Covid-19 public health response
- Recovery
- Prevention
- Reducing health inequalities
- Primary and community care
- Timely access to essential services
- Mental health
- Decarbonisation
- Social partnership



2020-21: A YEAR OF ACHIEVEMENTS AND AWARDS IN RESPONSE TO COVID-19

The achievements and awards summarised
here are included in detail in our
2020-21 Achievements Report





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and Care Wales



How we have developed our Plan


PLAN


DIGITAL HEALTH AND CARE WALES


2021/22


Our Vision....	Our Ambition....	Our Partners....	Our Routemap....
<p>Delivering information and technology for better care</p> <p>We will deliver to the people of Wales first-class digital health and care services which will enable more effective, efficient, safer decision-making by providing access to content-rich, person-focused health and care data and information.</p>	<p>We will:</p> <ul style="list-style-type: none"> • mobilise digital transformation by building on our foundations of data protection, infrastructure and information availability and flow - opening up our architecture to enable faster, consistent sharing of data with partners and suppliers • support the modernisation of clinical specialties and healthcare processes through delivering dedicated high quality digital services • empower staff and patients by combining data from many systems to form a comprehensive digital health and care record accessible anywhere, when needed, via easy to navigate digital entry points • enable users to derive value from data collected from national and local systems through Big Data Analysis 	<p>By working at the start with patients and the public, and national and local partners we can understand the future direction of healthcare and how we can play our part in patient centric care.</p> <p>We will help enable that transformation and change through data and technology solutions.</p>	<p>Year 1</p> <ul style="list-style-type: none"> • Establish the new Special Health Authority • Consolidation of enablers • Continue to support the pandemic response and recovery <p>Year 2-3</p> <ul style="list-style-type: none"> • Open and interoperable • Cloud First <p>Year 4+</p> <p>Significant value from data</p>
Development of the New Digital Organisation			

OUR OUTPUTS AND OUTCOMES....

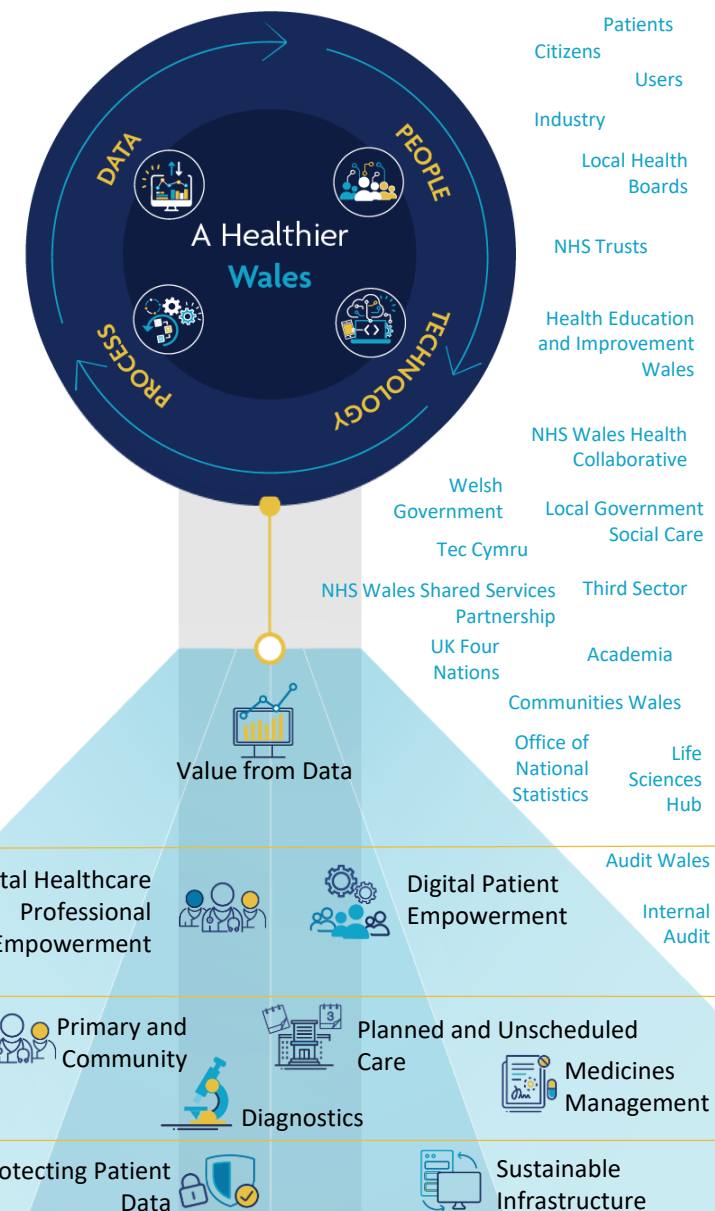
- 

Big data analysis.... FOR BETTER OUTCOMES AND VALUE BASED CARE
- 

Expanding the content, availability and functionality of the digital health and care record.... SO THAT CARE AND TREATMENT QUALITY IS IMPROVED
- 

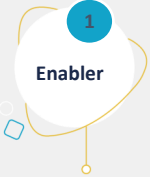
Delivering high quality digital services.... TO SUPPORT EFFICIENCIES AND IMPROVEMENTS IN CARE PROCESSES
- 

Mobilising Digital Transformation.... SUPPORTING JOINED UP CONSISTENT CARE

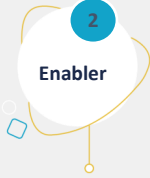




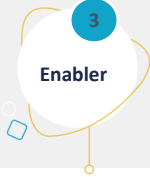
**MOBILISING
Digital
Transformation**



1
Enabler
Information Availability and Flow:
Develop an ‘open platform’ approach to digital innovation, by responding to national standards for how data, software and technologies work together, and how external partners can work with the national digital platform and national data resource



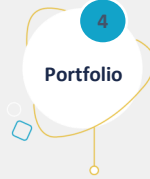
2
Enabler
Protecting Patient Data:
Develop an Information Governance and Cyber Security framework, standards and mechanisms that prioritise patient and service user safety and confidentiality, and protect data from external and internal threats, resulting in data remaining secure and NHS Wales being trusted to host patient and service user personal information



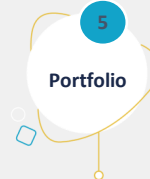
3
Enabler
Sustainable Infrastructure:
Develop and maintain a high-quality national infrastructure, transitioning to the cloud for better availability, reliability, safety, security, speed and agility



**EXPANDING THE CONTENT,
AVAILABILITY AND
FUNCTIONALITY
of the Digital Health
and Care Record**



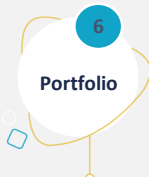
4
Portfolio
Digital Healthcare Professional Empowerment:
Accessing a content rich care environment, agnostic of health board and geographical boundaries by expanding the content, availability and functionality of the Digital Health and Care Record to be the front-door for real-time access to person-specific health and care data



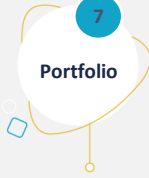
5
Portfolio
Digital Patient Empowerment:
Provide Digital services for patients and the public to enable seamless interaction with health and care services supporting patients to fully participate in their own health and well being



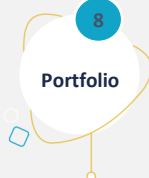
**DELIVERING
HIGH QUALITY
digital services**



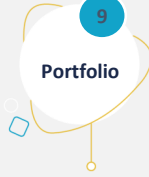
6
Portfolio
Public Health:
Develop, operate and maintain a set of high-quality national digital services to support Public Health prevention and early intervention Programmes



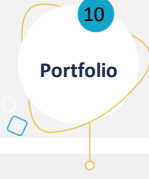
7
Portfolio
Primary and Community Care:
Building digital infrastructure across primary and community care by developing, operating and maintaining a set of high-quality national digital services reflecting new models of local care, closer to home



8
Portfolio
Planned and Unscheduled Care:
Develop, operate and maintain a set of high-quality national digital services to enable new models of planned and unscheduled patient care and management



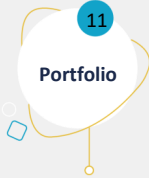
9
Portfolio
Diagnostics:
Develop, operate and maintain a set of high-quality national digital services to enable the modernisation of diagnostics



10
Portfolio
Medicines Management:
Develop, operate and maintain a set of high-quality national digital services to enable modernisation of medicines management

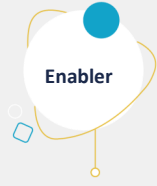


**BIG DATA analysis for better
outcomes and value based care**

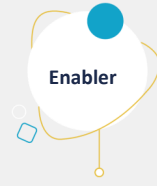


11
Portfolio
Value from data:
Driving value from data for better patient outcomes and service planning

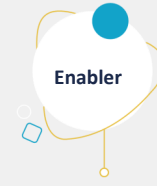
DEVELOPMENT OF The New Digital Organisation



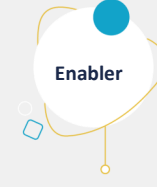
Establishing and embedding new organisation governance and leadership roles: Key leadership roles include Cyber Security and Data Governance



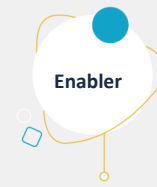
Strengthening Stakeholder Relationships : working collaboratively with all stakeholders to develop our digital roadmaps and to consider our responsibilities in relation to socio economic development in Wales



Strategic roadmap : Linking the work on the architecture and infrastructure to develop a technology roadmap that includes cloud and open architecture - a broader national systems roadmap linking the requirements of a Healthier Wales



Develop our Digital capability and capacity through our workforce development and planning but also our commercial relationships



Quality, Regulation and Service Improvement : DHCW will be a quality organisation adhering to relevant international quality standards. It will strengthen this with a new structure, iPassport system and proactive regulation focus

- Develop and deliver a fully functional and effective board governance process supported by appropriate committee structures, board governance framework and reporting requirements
- Ensure compliance with Standing Orders and Special Financial Instructions. Establishment of financial structures and functions to deliver and manage the financial allocations and requirements for statutory requirements. The role extends to supporting the investment pathway with digital business cases and benefits tracker
- Take forward the national functional responsibilities in Cyber with the formation of the Independent Cyber Resilience Unit and with the national data Governance responsibilities that DHCW will lead
- To further develop the functional requirements of the organisation and the resource and funding implications

- Confirming the strategic objectives and vision for the new organisation with our new board and ensure this is widely communicated
- Develop our stakeholder engagement strategy, building upon the strategic engagement sessions routinely underway
- Develop a shared transformation plan with delivery partners
- Ensure that socio economic considerations are at the heart of our procurement and resourcing decisions

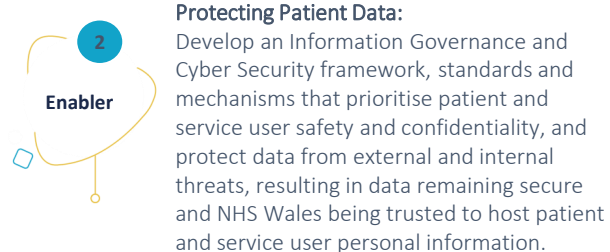
- To translate the Healthier Wales and population health digital response into a national digital road map that will help to identify and influence digital investment priorities underpinned by specific product and service roadmaps
- To respond to those priorities in relation to the Architecture and Infrastructure future requirements through the development of several strategies and related business cases, eg, Open Architecture, Cloud, test and development

- The demands for digital continue to grow. To keep pace DHCW will need to develop a comprehensive digital workforce plan capitalising on its links with the Wales Institute of Digital Information (WIDI), commercial partners, and HEIW. We will develop as part of WIDI our research and innovation strategy
- With the growing dependency on the digital systems 24/7 the organisational support models need to adapt and provide appropriate support. The future workforce models will be at the forefront of next year's plans
- Develop a business case articulating the benefits and need for further investment in business change expertise to increase the pace of digital transformation with our partners

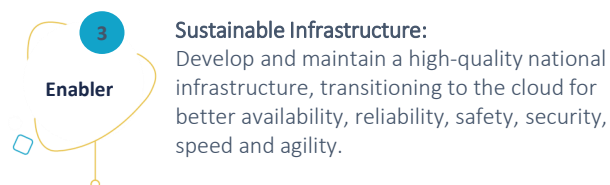
- A quality and regulation group will lead and support the implementation of IPassport and the audit programme that underpins the ISO standard requirements
- Regulatory priorities, such as medical devices will be areas of focus
- The quality and compliance team will be strengthened and assure that international quality standards are integrated within product development processes
- Develop our document management strategy
- A robust approach to organisational learning will ensure lessons learnt to deliver continuous service improvement



- Develop enhanced integration services and repositories as architectural building blocks to enable safe and secure access to data in the digital health and care record (1.01)
- Establish the structured clinical data repository for Wales as a new architectural building block, utilising a standards-based approach to how data is stored and shared with citizens, clinicians, and software suppliers, starting with cancer treatment, shared medications and allergies as the first implementations (1.02)
- Continue collaboration with the National Data Resource Programme to build the enablers of an open, interoperable architecture from which NHS Wales can derive value and insight from the intelligent use of clinical data (1.03)



- Ensure corporate compliance with 'information rights' legislation and standards framework (2.01)
- Develop and promote a national IG framework that allows the right people to access the right level of personal data at the right time (2.02)
- Contribute to a national governance structure that identifies threats and maximises opportunities to use personal data lawfully and effectively (2.03)
- Embed and support the national cyber security agenda including The Security of Network and Information Systems (NIS) Regulations (2.04)
- Host an independent Cyber Security unit which holds delegated authority from Welsh Ministers to provide ongoing cyber security assurance activities on behalf of Welsh Government (2.05)



- Move services from one Data Centre into a new Data Centre and Cloud (3.01)
- Develop a Cloud Strategy and Business Case for our organisation aligning to the Welsh Government infrastructure review and ensuring a 'cloud-first' approach to the design and development of future services (3.02)
- Migrate workloads from aging infrastructure and decommission (3.03)
- Increase infrastructure capacity as required to support the hosted systems and demand from end-users (3.04)
- Implement new processes and cloud management technologies to enable more optimised PC deployment and management (3.05)



- Support 'Transforming Cancer Services' by development of the Cancer Informatics Solution using the NHS Wales national architecture (4.01)
- Support Clinical plans and NHS professionals by enabling recording and linkage of data within the national architecture together with access to clinical documents and knowledge bases (4.02)
- Further develop the electronic requesting functionality and results notifications across other disciplines (4.03)
- Embed patient analytics into our systems (4.04)
- Progress sharing data from secondary care with community staff and vice versa (4.05)
- Further support remote working for healthcare professionals accessing data from anywhere and anytime, including expansion of both the mobile version of the digital health and care record and Office 365 (4.06)



- Take forward the Digital Services for Patients and the Public Programme (DSPP) as the default coordinating body for patient facing digital services across the NHS and social care space in Wales (5.01)
- Work with our health and care partners, the Centre for Digital Public Services and assurance groups to prioritise the citizen centred functionality for delivery of patient and public digital services (5.02)
- Finalise procurement activities and award contracts for the key commercial partners delivering the digital patient and public platform (5.03)
- Establish the digital patient and public core platform services, including working with the National Data Resource programme to develop the data and information architecture required to open up access to NHS held data in a safe, secure and auditable fashion (5.04)
- Deliver a proof of concept to demonstrate that the digital patient and public core platform concept works, to demonstrate supplier capabilities and to support the scoping and development of the baseline functionality (5.05)

STRATEGIC OBJECTIVES – National immediate future activities

Each Enabler / Portfolio has priority activities (in blue box) for the immediate future



Delivering High Quality Digital Services



Public Health:

Develop, operate and maintain a set of high-quality national digital services to support Public Health prevention and early intervention Programmes



Primary and Community Care:

Building digital infrastructure across primary and community care by developing, operating and maintaining a set of high-quality national digital services reflecting new models of local care, closer to home



Planned and Unscheduled Care:

Develop, operate and maintain a set of high-quality national digital services to enable new models of planned and unscheduled patient care and management



Diagnostics:

Develop, operate and maintain a set of high-quality national digital services to enable the modernisation of diagnostics.



Medicines Management:

Develop, operate and maintain a set of high-quality national digital services to enable modernisation of medicines management



Value from data:

Driving value from data for better patient outcomes and service planning



Big Data Analysis

- Scale up and enhance our digital offerings around Covid-19 contact tracing (6.01)
- Enhancing and rolling out our Welsh Immunisation System (6.02)
- Ensure Covid-19 systems are sustainable, supported and funded, and not to the detriment of our other solutions (6.03)
- Support the increasing requirements to deliver flows of Covid-19 testing data to new users, across borders, integrate with new systems and develop a Welsh Pandemic Record (6.04)
- Build on the Covid-19 business intelligence successes to extend our value from data offerings (6.05)
- Progress any planned enhancement or transfer of Screening systems, whilst sharing screening results with other systems nationally. (6.06)

- Complete the procurement of a new Framework for GP systems to provide system choice and enable the transfer of data rich patient records between GP Practices whilst looking to future alignment with the open digital health platform (7.01)
- Continue to support the roll out and platform upgrade of the Community system including the mobile version (7.02)
- Join up further the systems communicating across primary, community and hospital settings, including pharmacy teams benefitting from further electronic integration with other services and eye care (7.03)
- Complete the integration of the Dental E-referral Management System with the Welsh Patient Referral Service enabling Dentists to refer seamlessly to secondary care systems (7.04)
- Work to continue on agreeing data sets for community care including a mental health data set, and business intelligence dashboard linking health with social care data (7.05)
- Gather informatics requirements and modernise information availability around primary care services including those working in geographical localities called clusters, where health and care partners collaborate to understand local needs (7.06)

- Support the modernisation of outpatients through redefining patient contacts and risk stratification, electronic referral prioritisation, and providing digital solutions to support alternatives to outpatient appointments such as advice between primary and secondary care clinicians (8.01)
- Support referral pathway efficiencies from hospital to hospital with our patient referral solution (8.02)
- Roll out a system to support digitalisation of Intensive Care across Wales (8.03)
- Roll out the Welsh Emergency Department System across Wales (8.04)
- Implement the patient administration functionality of the current Cancer Solution in Velindre with the Welsh Patient Administration System (8.05)
- Implement the Welsh Patient Administration in BCU West and then across the health board as a single instance. (8.06)
- Support the core datasets for new and developing systems in planned and unscheduled care (8.07)
- Gather requirements for a single view of a patient pathway in secondary care (8.08)
- Support integration requirements from initiatives such as 111, Eye care, WAST electronic patient care record, Scan4Safety. (8.09)

- Support the new national Laboratory Information Management System LINC Programme (9.01)
- Support the radiology community with solutions such as the new Radiology Informatics Solution Procurement Programme (RISP) including the procurement of new Picture Archiving and Dosage Management Solutions (9.02)
- Support implementation of electronic radiology requesting across Wales (9.03)
- Work with diagnostics services across Wales to provide an imaging archiving solution (9.04)
- Enhance the national availability of diagnostic results and reports into national repositories, eg working with initiatives like digital cellular pathology (9.05)

- Roll out a newly procured national medicines stock control system to Welsh hospitals (10.01)
- Consider the results of the Welsh Government commissioned Review into E-prescribing and electronic transfer of prescriptions and work out the immediate options to support this. (10.02)
- Work will take place to explore the complexities and opportunities of establishing a Common Medications Record that will enhance the Digital Health and Care Record (10.03)
- Start to improve the 'data language' of medicines so systems can communicate (10.04)

- Continue to support the requirements of the COVID-19 response with necessary developments around data, analysis and reporting (11.01)
- Expand the analyses of data in relation to Essential Services provision (11.02)
- Continue the support and development of products in support of the Value in Health Programme, utilising the developing standards for PROMS. (11.03)
- Formalise Research and Innovation arrangements and set out a research approach that is aligned to DHCW's strategic objectives and the needs and demands of the health and care system in Wales (11.04)

PLANNING ASSUMPTIONS

The Digital Health and Care Wales plan for 2021/22 has been developed against the backdrop of uncertainty and rapid change arising from the Covid-19 pandemic as well as establishing the new Special Health Authority from April 2021.

Whilst these are challenging times, they have also illustrated the many opportunities where digital has helped in the delivery of care during Covid-19, with new solutions being created in record time. This plan therefore will naturally be fluid in some areas to reflect those new needs, but also needs to display a resilient, trusted backbone of digital enablers, such as infrastructure, data protection and information availability and flow.

Planning Assumptions used

- Q3 and Q4 are indicative
- Delivery intentions are based on known funding availability
- New initiatives will require additional funding or cancellation of other initiatives in the plan
- Sickness, leave carry over and recruitment challenges have been factored in
- This plan has considered priorities from Welsh Government, Health Education and Improvement Wales (HEIW), the NHS Wales Health Collaborative and Health Boards/Trusts - gathered from meetings and Peer groups during early 2021. Organisational plans were not approved at this stage and detailed requirements may not have been available

Areas with more certainty and confidence

- Building on the Value from Data derived from Covid-19
- Our Operational Services which have been least impacted by Covid-19
- Ring fenced funded National Solutions, eg primary care, procured systems with contracts awarded such as the new Hospital Pharmacy and Intensive Care Systems

Areas of variability still being worked through

- New requirements, including establishment of permanent support for Test, Trace and Protect
- Medications Review, e-prescribing and electronic transfer of prescriptions – awaiting Welsh Government Review
- Services affected directly or indirectly by Covid-19, eg screening services
- Impact of expectations of new SHA Board on the commitments in the plan

RISKS

- **New digital requirements** – There is a risk of demand exceeding current staff capacity due to new priorities, relating to Covid-19 and Recovery initiatives. The challenges of Planned and Unscheduled Care are outlined in the *Health and Social Care in Wales - 'Covid-19: Looking Forward March 2021' paper* - which describes areas of potential new requirements and ways of working, eg new pathways, urgent primary care, regional treatment centres and the exploration of a 'wide range of new options' to reduce waiting lists.
- **Planning the move from Legacy.** The significant estate of legacy/unsupported infrastructure and operating systems across the organisation needs to be planned, resourced and addressed. The work required is from all areas of the organisation, predominantly application and infrastructure teams. Any focus away from this migration, such as dealing with operational incidents could impact on other objectives in the plan. This includes movement to a new datacentre.
- **Delay in Infrastructure Investment** - the increased reliance on, and criticality of NHS Wales' health and care information systems, coupled with ever present security threats, has seen demand significantly outstrip the pace of investment, resulting in greater levels of 'technical debt'. The risk to the plan is that the focus is shifted to maintenance not innovation.
- **Recruitment** - There is a risk of not filling vacancies in a timely manner. Equally the market rates are in some cases well above the Agenda for Change rates which will impact on our ability to bring good candidates in quickly enough.
- **Canisc Replacement** – this is a complex programme of work, dependent on the availability of stakeholders and delivery of a Minimal Viable Product. Any delay to dependencies will impact on the delivery date of the solution.
- **Contractual delays** - major implementations may be impacted by supplier delays and delays in concluding contractual discussions with organisations.
- **IG Framework** – a delay in the development of some elements of the IG framework will impact on the development of the National Data Resource Programme and Digital Services for Patient and the Public. (The wider public services - *'Digital Strategy for Wales' March 2021*, also references a 'data promise' which needs to assure citizens about how their health and care data is being held and used, as part of consulting on a wider set of principles for the use of data in the public sector.)





Priority

PREVENTION

- Scaling up and enhance our digital offerings around Covid -19 contact tracing (6.01)
- Enhancing and rolling out our Welsh Immunisation System (6.02)
- Ensuring Covid-19 systems are sustainable, supported and funded (6.03)
- Support the increasing requirements to deliver flows of Covid-19 testing data to new users, across borders, integrate with new systems and develop a Welsh Pandemic Record (6.04)
- Building on the Covid-19 business intelligence successes to extend our value from data offerings (6.05)
- Progress any planned enhancement or transfer of Screening systems whilst sharing screening results with other systems nationally (6.06)



Priority

REDUCING HEALTH INEQUALITIES

- Continue to support the requirements of the COVID-19 response with necessary developments around data, analysis and reporting (11.01)
- Expand the analyses of data in relation to Essential Services provision (11.02)
- Continue the support and development of products in support of the Value in Health Programme, utilising the developing standards for Patient Recorded Outcome Measures (PROMs). (11.03)

PRIMARY AND COMMUNITY

- Complete the procurement of a new Framework for GP systems to provide system choice and enable the transfer of data rich patient records between GP Practices whilst looking to future alignment with the open digital health platform (7.01)
- Continue to support the roll out and platform upgrade of the Community system including the mobile version (7.02)
- Join up further the systems communicating across primary, community and hospital settings, including pharmacy teams benefitting from further electronic integration with other services and eye care (7.03)
- Complete the integration of the Dental E-referral Management System with the Welsh Patient Referral Service enabling Dentists to refer seamlessly to secondary care systems. (7.04)
- Gather informatics requirements and modernise information availability around primary care services including those working in geographical localities called clusters, where health and care partners collaborate to understand local needs (7.06)



Priority



Priority

TIMELY ACCESS TO ESSENTIAL SERVICES

- Support the modernisation of outpatients through redefining patient contacts and risk stratification, electronic referral prioritisation, and providing digital solutions to support alternatives to outpatient appointments such as advice between primary and secondary care clinicians (8.01)
- Support referral pathway efficiencies from hospital to hospital with our patient referral solution (8.02)
- Roll out a system to support digitalisation of Intensive Care across Wales (8.03)
- Roll out the Welsh Emergency Department System across Wales (8.04)
- Further support remote working for healthcare professionals accessing data from anywhere and anytime, including expansion of both the mobile version of the digital health and care record and Office 365 (4.06)



Priority

MENTAL HEALTH

- Work to continue on agreeing data sets for community care including a mental health data set, and business intelligence dashboard linking health with social care data (7.05)
- Continue to support the roll out and platform upgrade of the Community system including the mobile version (7.02)
- Support Clinical plans and NHS professionals by enabling recording and linkage of data within the national architecture together with access to clinical documents and knowledge bases, including mental health e-forms (4.02)



Priority

DECARBONISATION

- As part of our wider sustainability vision, we are committed to reduce our carbon footprint and save energy across all sites supported by our Carbon Footprint methodology and dashboard. We will derive further benefits from digital working, eg less travelling



Priority

SOCIAL PARTNERSHIP

- We will include our response to the Social Partnership Act as part of our wider approach to the Well-being of Future Generations (Wales) Act and sustainable development. We commit to signing the Digital Inclusion Charter.



KEY

The reference numbers relate to our Portfolio 'Immediate Actions'

Harm from Covid itself	Harm from Overwhelmed System
Harm from Reduced Non Covid Activity	Harm from Wider Societal Actions

OUR STRATEGIC WELL-BEING OBJECTIVES

Embed a sustainable culture to limit the impact on the environment.

Work to strengthen the international recognition of NHS Wales as a Centre of Excellence for digital innovation.

Actively promote the use of the Welsh language.



Improve the health and well-being of the citizens of Wales, helping to sustain a healthy, productive population that contributes to society.

Promote a culture of volunteering by creating the conditions for citizens to share their experience and to learn new skills.

Attract and develop skills, and provide opportunities for existing and future generations.

Support the sharing of expert knowledge so that the citizens of Wales are better able to access the best possible healthcare when they need it.

NEED FOR CHANGE:

The **Well-being of Future Generations (Wales) Act 2015** requires public bodies in Wales to think about the long-term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change.

The purpose of Digital Health and Care Wales naturally aligns to delivering the digital needs of [A Healthier Wales](#) - one of the seven core well-being goals of the Future Generations Act, and Welsh Government's long-term plan for Health and Social Care; the other well-being goals also resonate with our approach but we have more to do.

We have actively participated in fulfilling the ambitions of the act, and whilst we have not previously been required to develop well-being objectives we've had them in place since 2016. They are shown here, aligned to each of the act's seven well-being goals.

We have made, and continue to make improvements, such as our response to the Covid-19 pandemic which has required the majority of staff to work from home – significantly reducing use of resources.

THE IMMEDIATE FUTURE:

Activities continue throughout Digital Health and Care Wales to deliver against our well-being objectives, set by NWIS in 2016. Each year we review progress against activities within each objective, and identify additional activities where necessary. Some of the key activities for 2021-22 are:

- Accelerate the digital transformation of health and care in NHS Wales as the trusted delivery partner for the provision of digital health and care services.
- Undertake collaborative design and add new capabilities to the Digital Health and Care Record.
- Reduce carbon footprint and save energy across all sites; some sites have been rationalised.
- Deliver a Senior Leadership Programme and develop a new management programme.
- Continue to promote and support activities which celebrate diversity and inclusion.
- Continue to promote and support use of the Welsh language.
- Work on an all-Wales basis to share best practice and embrace partnership working, including social partnerships.

In 2021-22 we aim to review our well-being Goals and wider approach to sustainable development in collaboration with the Digital Health and Care Wales Board.





GIG
CYMRU
NHS
WALES

Iechyd a Gofal
Digidol Cymru
Digital Health
and Care Wales



Our National Portfolios and Enablers

PLAN

DIGITAL HEALTH AND CARE WALES

2021/22

OUR PORTFOLIO DEVELOPMENT

We have developed draft Visions and Roadmaps for each portfolio and enabler, and plan to share these with wider stakeholders for their review and input over coming months



FUTURE STATE:

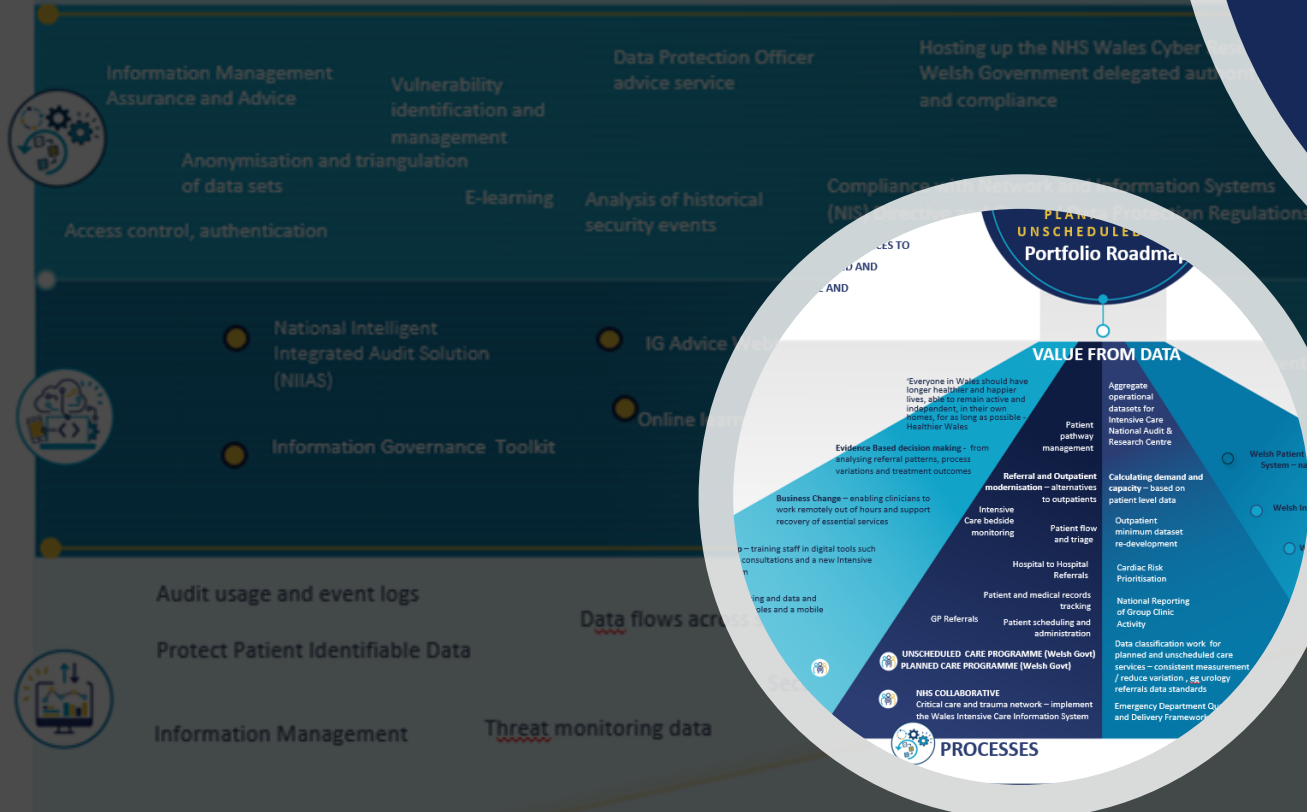
A full suite of national standards for information governance and cyber security with full health and care partner adoption.



CURRENT STATE:

Some national responsibilities and national standards. New Welsh Governance Digital Governance will effect the overall scope of protecting patient data

TECHNOLOGY PROCESSES DATA



HOW WE WORK LINK WITH PARTNERS: : Service change is about people and processes. By working at the start with our national future direction of healthcare and help enable transformation through data and technology solutions.

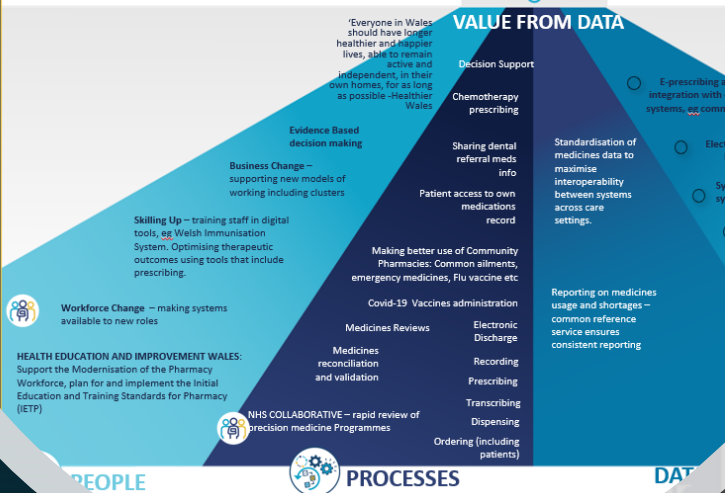
STATE:

Electric, prescribing times, extensive, joined up, delivering, active,

DEVELOP, OPERATE, MAINTAIN A SET OF HIGH-QUALITY NATIONAL DIGITAL SERVICES TO ENABLE MODERNISATION OF MEDICINES MANAGEMENT

MEDICINES MANAGEMENT

Portfolio Roadmap



PEOPLE

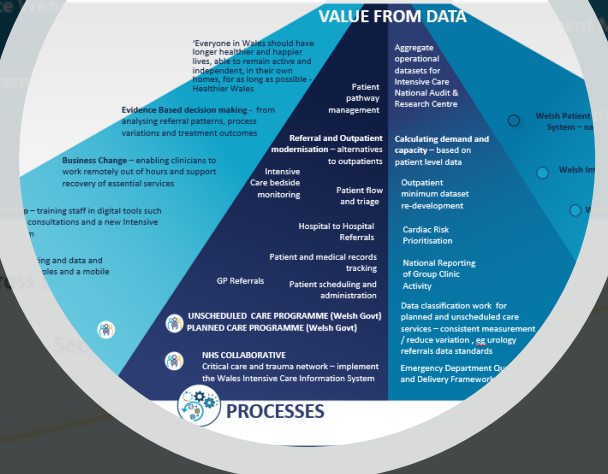


PROCESSES

DATA

LINK WITH PARTNERS: Service change is about people and processes. By working at the start with our national future direction of healthcare and help enable transformation through data and technology solutions.

Portfolio Roadmap



PROCESSES

PEOPLE



PROCESSES

DATA

LINK WITH PARTNERS: Service change is about people and processes. By working at the start with our national future direction of healthcare and help enable transformation through data and technology solutions.

INFORMATION AVAILABILITY AND FLOW VISION



Strategic
Objective

Mobilising
Digital
Transformation



Enabler
Objective

Develop an 'open platform' approach to digital innovation, by responding to national standards for how, data, software and technologies work together, and how external partners can work with the national digital platform and national data resource



NEED FOR CHANGE

NHS Wales routinely collects vast amounts of data related to an individual's care and also the day to day administration of the health service. The full value of that data is not realised due to the fragmented arrangements for handling data stored in inaccessible silos and lack of standards to help classify and link data. Lack of data means the evidence and intelligence isn't there to support decision making, identify areas needing focus, and establish whether treatments are prudent. The Welsh Government *Information Statement of Intent* in 2017, focused on '**Better use of health and care data for safe, effective care and efficient services**'. *Healthier Wales 2019* continued this theme, recognising the need for modelling and predicting demand to prioritise services, based on a full picture of their quality and value, not just cost and volume.

A significant barrier to the appropriate sharing of information between systems and organisations has been a lack of technical standards relating to how systems talk to each other or interoperate, their security, infrastructure and system development. This portfolio includes the future aspiration around a more 'open' data driven architecture promoting a collaborative sharing of standardised data enabling faster, more innovative digital solutions from multiple suppliers. This reflects the observations from the NHS Wales Digital Architecture Review 2019.

WHAT CAN DIGITAL DO?

An 'open platform' architecture design, national standards and the establishment of a National Data Resource (NDR) bringing patient data together in one place can:

- ensure data is **stored once and reused** many times. This can prevent repeating the same questions to patients in different settings about their medications, symptoms etc.
- **avoid dependencies on certain suppliers** with 'hard coded' linkages, ensuring multiple suppliers can contribute to a rich patient record and provide innovative solutions more quickly
- make the **data follow the patient** and not lock in data to specific professions, locations or organisations
- allow large scale information to be shared securely and appropriately to **enable analytics, big data**, machine learning, intelligence, data science, reporting and research and reviews of costs and outcomes to support Value-Based healthcare.

DIGITAL HEALTH AND CARE WALES' ROLE

DHCW will play a pivotal role in the realisation of this vision. We already provide over 100 nationally supported systems and services rich with data. We have built national repositories with 26 million clinical documents and over 150 million test results, increasing by the second. We have national services for demographics, location and speciality reference data, in addition to a clinical terminology service in readiness for implementation. We integrate with hundreds of systems.

Taking direction from a new Chief Digital Officer, DHCW will be the system owner for an open platform based on standards for collection and use of data. We will be responsible for technical development and delivery of new 'architectural building blocks'. We are hosting and programme managing the National Data Resource (NDR) initiative working with colleagues in Welsh Government, Public Health Wales, Health Boards, Trusts, academia and more.

THE IMMEDIATE FUTURE:

- Develop enhanced integration services and repositories as architectural building blocks to enable safe and secure access to data in the digital health and care record
- Establish the structured clinical data repository for Wales as a new architectural building block, utilising a standards-based approach to how data is stored and shared with citizens, clinicians, and software suppliers, starting with cancer treatment, shared medications and allergies as the first implementations
- Continue collaboration with the National Data Resource Programme to build the enablers of an open, interoperable architecture from which NHS Wales can derive value and insight from the intelligent use of clinical data



Policy
Maker



Clinician



Manager



Citizen



Researcher



Data
Analyst



Planner

Consolidate, standardise, classify, anonymise,
manipulate, model, predict, combine, join data

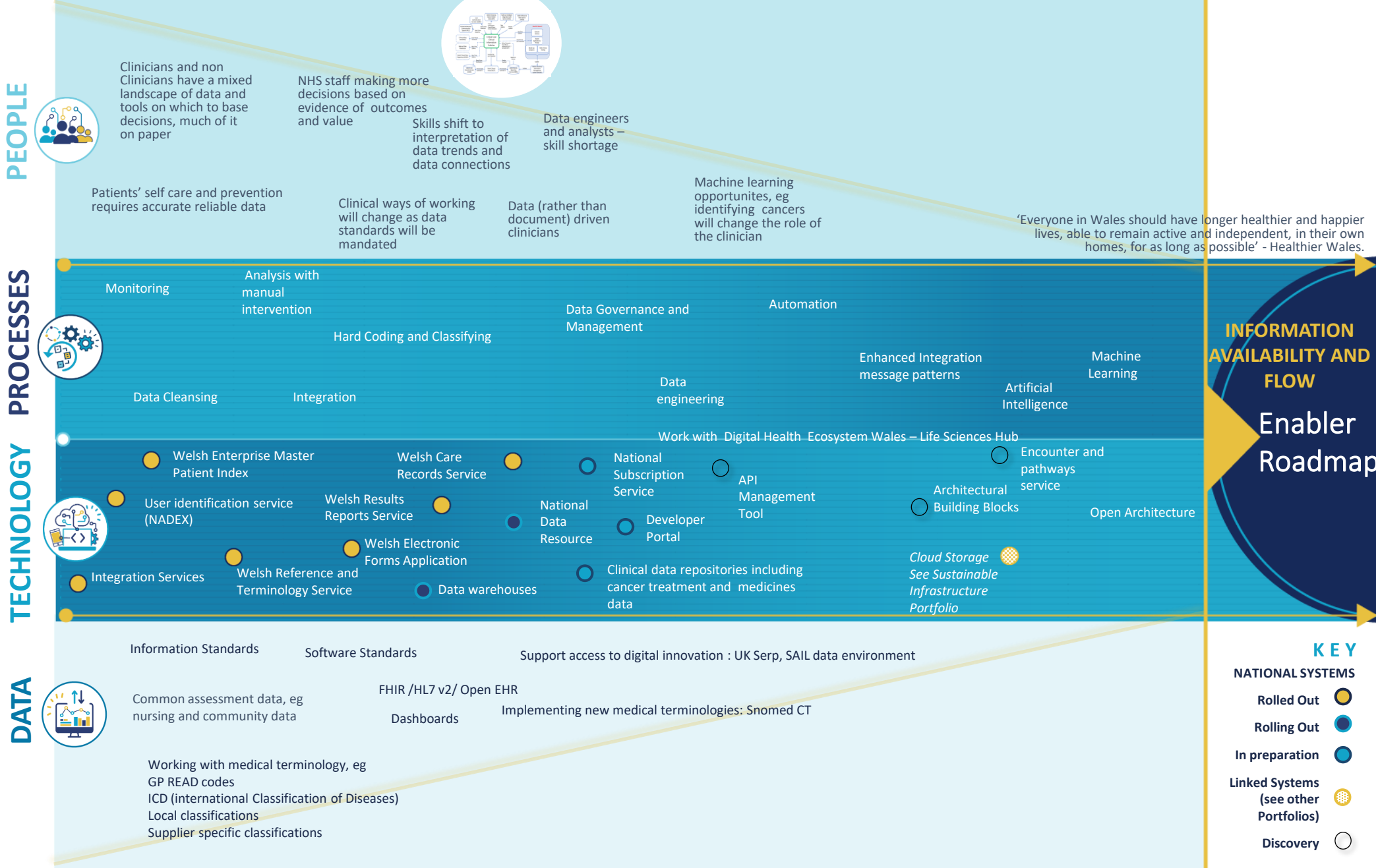




Develop an 'open platform' approach to digital innovation, by responding to national standards for how data, software and technologies work together, and how external partners can work with the national digital platform and national data resource

FUTURE STATE:
Patient centric, electronic processes, extensive quality data, joined up systems talking to each other, data delivering value, proactive, predictive. Automation and Big data.

CURRENT STATE:
Silo systems, limited data standards, piecemeal data sharing, location specific, reactive. Manual processes.



HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with our national and local partners we can understand the future direction of healthcare and help enable transformation through data and technology solutions.

PROTECTING PATIENT DATA VISION



Strategic
Objective

Mobilising
Digital
Transformation



Enabler
Objective

Develop an Information Governance and Cyber Security framework, standards and mechanisms that prioritise patient and service user safety and confidentiality, and protect data from external and internal threats, resulting in data remaining secure and NHS Wales being trusted to host patient and service user personal information.



NEED FOR CHANGE

Data Availability. As the health and care service in Wales strives to join up across pathways and organisational boundaries, there is a strong need to make data available to a wider user base than current technology is configured to deliver. New models of care and effective clinical delivery requires a controlled reduction in these organisational and professional barriers as workforce and patients become more transient. Wider sharing across health and social care and wider public services is a key theme. This is against a backdrop of increasingly sophisticated cyber attacks threatening the protection of patient data. The *NHS Wales Digital Health and Care Strategy* stressed the security of the system and the protection and management of information is essential in ensuring trust. Patients need assurances that their data is safe in NHS hands.

Compliance with the Freedom of Information Act 2000 and General Data Protection Regulations 2018 requires a strong protection of privacy. The Network and Information Systems (NIS) Directive 2018 requires NHS bodies to take appropriate technical and organisational measures to secure their network and information systems, identifying and managing security risks.

Citizen Access. Another driver is the citizen access to their data to support self management via online apps and the self generation of health data through wearable devices and monitoring tools. Sharing of data with carers is also key. This requires a strong model of identity management and authentication for patient facing systems. Identification management is obviously also paramount in health staff access and to support the auditing of appropriate access to patient records

WHAT CAN DIGITAL DO?

Audit. Whilst enabling wider availability of data for effective care, digital needs also to protect that data through auditing tools integrated across systems which alert managers and Information Governance specialists of unauthorised access activity.

Educate. Electronic tool kits can assure those with patient record responsibilities that they are doing the right things to ensure high Information Governance compliance. Websites can provide a wider communication tool providing up to date and relevant technical info for NHS staff. Online training for staff is an essential tool to ensure compliance ahead of accessing data.

Protect. Digital systems can provide threat monitoring and alerting to avert cyber attacks.

Identify. Digital can provide electronic identity management and authentication for staff systems and also citizen facing systems.



20 Citizen



IG
Specialist



GP Practice
Manager



Security
Specialist



Wider NHS

DIGITAL HEALTH AND CARE WALES' ROLE

We are responsible for the National Intelligent Integrated Audit Tool contract and oversee its national implementation and integration. We provide a Data Protection Officer advice service to GPs in Wales and produce IG Toolkits for GPs, Health Boards and Trusts.

We will host the NHS Wales Cyber Resilience Unit on behalf of Welsh Government, with separate managerial and governance arrangements, to provide ongoing cyber security assurance, reporting on 'cyber posture', and advice. We procure and implement cyber threat monitoring tools and provide extensive security advice and guidance to our health partners.

We advise on the publication of data, eg in dashboards so it is consistent with IG standards and doesn't expose patient identifiable information. We provide national learning tools and websites to deliver awareness of data privacy and use.

THE IMMEDIATE FUTURE:

- Ensure corporate compliance with 'information rights' legislation and standards framework
- Develop and promote a national IG framework that allows the right people to access the right level of personal data at the right time
- Contribute to a national governance structure that identifies threats and maximises opportunities to use personal data lawfully and effectively
- Embed and support the national cyber security agenda including The Security of Network and Information Systems (NIS) Regulations
- Host an independent Cyber Security unit which holds delegated authority from Welsh Ministers to provide ongoing cyber security assurance activities on behalf of Welsh Government

Check identities, protect data, monitor and audit access, identify threats, anonymise, advise, notify, generate reports



Develop an information governance and cyber security framework, standards and mechanisms that prioritise patient and service user safety and confidentiality, and protect data from external and internal threats, resulting in data remaining secure and NHS Wales being trusted to host patient and service user personal information.



FUTURE STATE:

A full suite of national standards for information governance and cyber security with full health and care partner adoption



CURRENT STATE:

Some national responsibilities and standards. New Welsh Government Digital Governance will effect the overall scope of protecting patient data

Enabler Objective

PEOPLE



Patients and citizens want confidence that their data is protected, used fairly and legally for specific purposes related to only what is needed, up to date, accurate, stored for only as long as is necessary and kept confidential

NHS Staff need to understand their role in protecting patient data and sharing data with other public sector bodies and agencies, eg social care

Skilling up the workforce to understand their Information Governance and Cyber responsibilities as data availability increases, eg GPs needing advice as Data Protection Officers.

Technical skills gap dealing with new cyber technology and emerging threats

PROCESSES



Information Management Assurance and Advice

Vulnerability identification and management

Data Protection Officer advice service

Hosting up the NHS Wales Cyber Resilience Unit as a Welsh Government delegated authority - auditing and compliance

Information Governance Framework

Anonymisation and triangulation of data sets

E-learning

Analysis of historical security events

Compliance with Network and Information Systems (NIS) Directive and General Data Protection Regulations

Access control, authentication



National Intelligent Integrated Audit Solution (NIIAS)

IG Advice Websites

Security Information and Event Management (SIEM)

Online learning

Information Governance Toolkit

Vulnerability Management Service (VMS)

DATA



Audit usage and event logs

Data flows across systems

Protect Patient Identifiable Data

Security event data

Information Management

Threat monitoring data

PROTECTING PATIENT DATA

Enabler Roadmap

KEY

NATIONAL SYSTEMS

Rolled Out

Rolling Out

In preparation

Linked Systems (see other Portfolios)

Discovery

HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with our national and local partners we can understand the future direction of healthcare and help enable transformation through data and technology solutions.

SUSTAINABLE INFRASTRUCTURE VISION



NEED FOR CHANGE

The NHS Wales technical infrastructure is the framework of network connections and services, datacentres, support systems, maintenance and upgrades that provides strength, security and stability to health and care systems across Wales. The Digital Health and Social Care Strategy for Wales, and A Healthier Wales both refer to building and investing on a 'solid' technical national infrastructure. This will ensure availability of services when and where needed so staff and systems work more effectively with one another - between computers, services, and across the whole of Wales. Without this stable footing, there will be unplanned interruptions to Clinical Information Systems, which can mean clinic cancellations, delayed test results, unavailability of crucial treatment information, and therefore increased risk of patient harm.

The All Wales IT Infrastructure Review (AWIIR) 2020, highlights the need for change. NHS Wales has a significant amount of aging systems, some unsupported. Short term investments have failed to keep pace with infrastructure needs and increasing users. There are three key drivers:

- The need to replace outdated infrastructure which is at risk of failure or is unable to be secured against cyber security attacks
- The need to mitigate risks identified by audit including full testing of restores and outdated firmware/software
- The need to embrace the use of Cloud services.

Sharing of national infrastructure with accompanying investment will be more efficient and less piecemeal.

WHAT CAN DIGITAL DO?

The benefits of digital are evident in our other roadmaps. Realising those benefits is totally dependent on a reliable, secure infrastructure which ultimately makes data available. Recommendations from the All Wales Infrastructure Review suggested:

- Moving to Cloud hosting where relevant
- Design operational resilience and continuity into systems to prevent, respond and adapt to operational disruption
- 24/7 hour availability and working
- Carbon Neutral
- Automation of infrastructure configuration
- Location agnostic, consistent experience for staff

Monitor, prevent, identify, expand, deploy



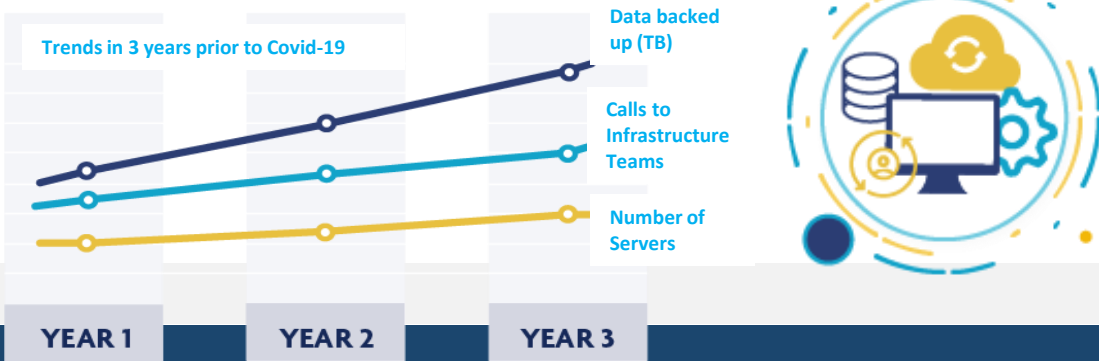
DIGITAL HEALTH AND CARE WALES' ROLE

We provide an extensive national infrastructure across NHS Wales. Our **Data Centre Service** team manages ~ 2300 servers in two national data centres and a public Cloud. The **Infrastructure Support and Operations Centre** team monitors the various infrastructure components for availability, capacity, etc. The **Networking Services** team maintains the networking infrastructure (routers, switches, firewalls, etc.) along with the associated data circuits.

Identity and Collaboration Services provides a National Active Directory service which registers and authenticates every computer and user onto the network. We also run collaboration services such as Email, Video Conferencing, Teams and global configuration of Office 365. We provide a range of **cyber security** services (see Protecting Patient Data Portfolio). We also **support end user devices** for our staff and thousands of users in primary care, prisons, hospices and other NHS Wales partners.

THE IMMEDIATE FUTURE:

- Move services from one Data Centre into a new Data Centre and Cloud
- Develop a Cloud Strategy and Business Case for our organisation aligning to the Welsh Government infrastructure review and ensuring a 'cloud-first' approach to the design and development of future services
- Migrate workloads from aging infrastructure and decommission
- Increase infrastructure capacity as required to support the hosted systems and demand from end-users
- Implement new processes and cloud management technologies to enable more optimised PC deployment and management





Develop and maintain a high-quality national infrastructure, transitioning to the cloud for better availability, reliability, safety, security, speed and agility



FUTURE STATE: high-quality national infrastructure, transitioning to the cloud for better availability, reliability, safety, security, speed and agility



CURRENT STATE: Aging infrastructure, struggling to cope with a big increase in users and activity. Requirements for new types of technical skills

PEOPLE



Increasing expectations - spinning up systems quickly, high availability, business continuity

Wider Technical Skill Gap

Staff Increasingly working out of hours needing 24/7 support

Remote working

Users more mobile as a workforce

PROCESSES



On-premise management Data storage, networking

Fault Finding

Supporting End User Devices

Supporting 24/7 working

Meeting demands for Big Data and open architecture

Identity Management and Collaboration

Threat monitoring

Enhanced back up and restore processes

Improved infrastructure lifecycle management

Centre of national expertise, eg cloud

On call support for critical systems

Remote Desktop Builds

Optimised cloud management processes

TECHNOLOGY



Data Centre Storage x2 sites

2021 new site replacing current data Centre

End User Devices

Networks

S/W defined networking

Connectivity Review – increase capacity including internet

Modernise Comms and telephony

Cloud: migrate systems as 'Infrastructure as a service'

Cloud: 'Software as a service', eg device management

Cloud: optimise systems using 'platform as a service'

Carbon Neutral

Cyber Security monitoring – see Protecting Patient Data Portfolio

Identity and Collaboration Service

DATA



Performance data

User registers for our clients

Proactive Capacity Management

Availability data

Intelligent monitoring (end user experience)

Monitoring

Forecasting and Modelling

Usage predictions

Reactive Capacity Management

SUSTAINABLE INFRASTRUCTURE

Enabler Roadmap

KEY

NATIONAL SYSTEMS

- Rolled Out
- Rolling Out
- In preparation
- Linked Systems (see other Portfolios)
- Discovery

HOW WE WORK LINK WITH PARTNERS: Digital infrastructure is about technology, processes and data capabilities. We provide a national infrastructure across NHS Wales, utilised by clinical and non clinical staff in local and other national organisations.

DIGITAL HEALTHCARE PROFESSIONAL EMPOWERMENT

VISION

NEED FOR CHANGE

The *NHS Wales Digital Health and Care Strategy* set an objective to ‘Support the Healthcare Professional’. The way to do this was recognised as ‘improving patient care through ‘collaborative provision of high quality information, systems and technologies’. Patient data is scattered over paper and digital formats. Paper can be incomplete, locked away or in transit. Digital data can also be incomplete, siloed in a departmental system, bound by organisational boundaries and not communicating with other systems. Clinicians can have a bewildering array of technology to use, with different log ins and different user interfaces from one hospital to the next. This is at odds with an increasingly mobile workforce and a patient who could travel across several health board borders on a single course of treatment and care. Adding in social care and professional boundaries and the border with England, makes it a highly complex landscape. Where that data doesn’t join up, key information is lost, decisions can be wrong and patients can be harmed.

New models of care also require data to be available across boundaries and multi-disciplinary groups. Data can inform planning options and features in key National Clinical Programmes and Delivery Plans. The *National Clinical Framework (March 2021)* is underpinned by Quality statements – the first two, Cancer and Heart conditions – both reference digital.

WHAT CAN DIGITAL DO?

Digital can provide an electronic front door to this data, so it is available when needed at any location on demand. The data can be protected in national and local repositories, and called up by simple to use systems by all appropriate healthcare professionals. Digital forms can be built with associated workflow, prompts and decision support to help with consultations and provide a comprehensive standard collection of diagnosis, tests orders, referrals to other clinicians, treatment records, including medications and discharge details. The data can be linked to events and appointments along the patient pathway. It can bring data locked in specialist systems to the wider clinical community.

Order tests, view test results, view documents, refer, prioritise, record diagnosis, plan and record treatment, transcribe medications, advise, notify, discharge



DIGITAL HEALTH AND CARE WALES’ ROLE

We've introduced a digital patient record across hospitals and health boards in Wales. It's available to doctors and health professionals through a single application - **the Welsh Clinical Portal**. It shares, delivers and displays patient information from a number of sources with a single log-on, even if that information is spread across health boards, together with key electronic tasks.

The Welsh Clinical Portal has the following functionality: pathology tests and image requesting / reporting, viewing patient lists, referrals prioritisation, creation of discharge letters and medicine transcribing, clinical notes, document creation and viewing, mobile access. Digital documents have been built for nursing, diabetes, cancer and hepatology specialties so far. It is the view through to millions of test results and clinical documents on an all Wales basis.

THE IMMEDIATE FUTURE:

- Support ‘Transforming Cancer Services’ by development of the Cancer Informatics Solution using the NHS Wales national architecture
- Support Clinical plans and NHS professionals by enabling recording and linkage of data within the national architecture together with access to clinical documents and knowledge bases
- Further develop the electronic requesting functionality and results notifications across other disciplines
- Embed patient analytics into our systems
- Progress sharing data from secondary care with community staff and vice versa
- Further support remote working for healthcare professionals accessing data from anywhere and anytime, including expansion of both the mobile version of the digital health and care record and Office 365



Portfolio Objective

Accessing a content rich care environment, agnostic of health board and geographical boundaries by expanding the content, availability and functionality of the digital health and care record to be the front-door for real-time access to person-specific health and care data



FUTURE STATE:

Patient Centric, mobile workforce, electronic processes, quality data, joined up working, systems that can talk to each other, data delivering value



CURRENT STATE:

Silo systems, limited data standards, piecemeal data sharing, location specific, reactive, stores of paper documents, transported on trolleys

DIGITAL HEALTHCARE PROFESSIONAL EMPOWERMENT

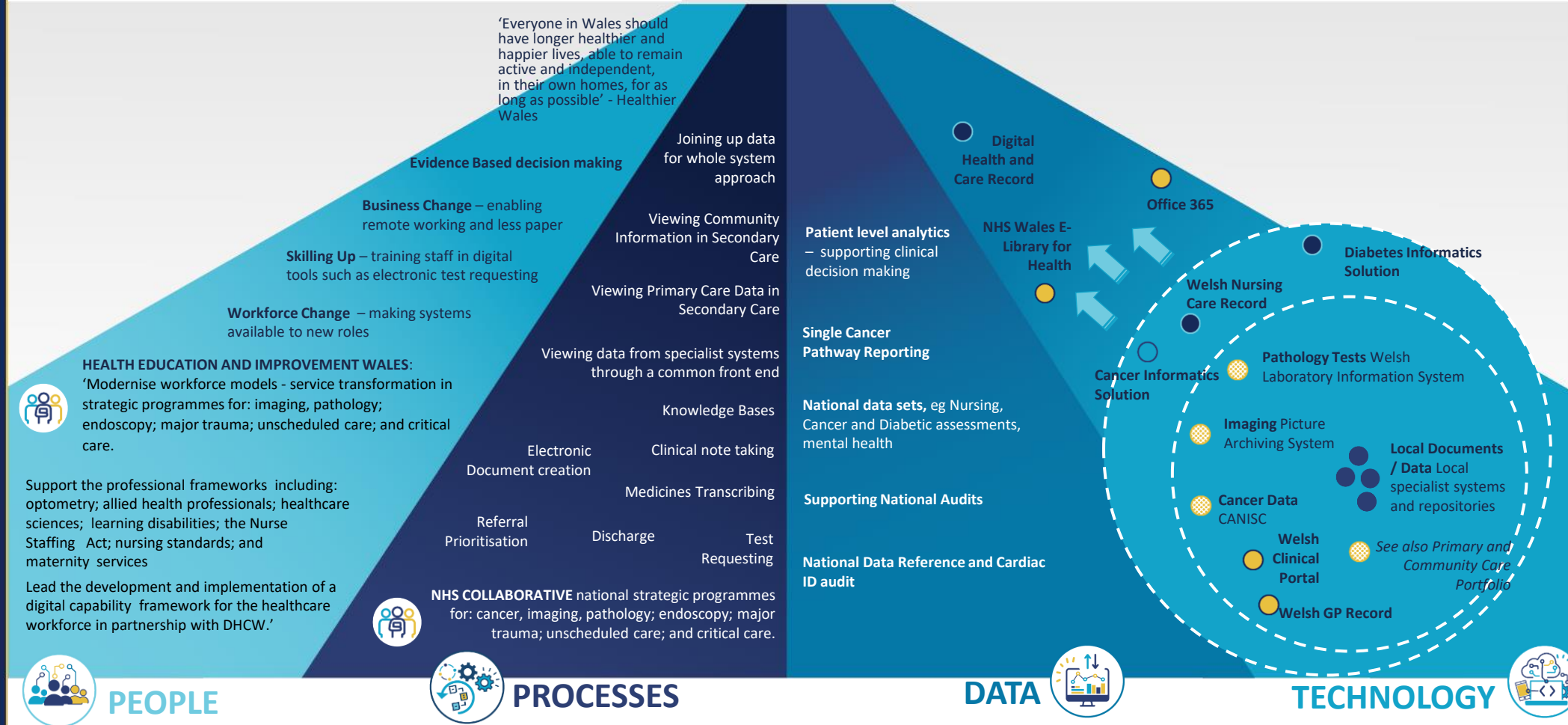
Portfolio Roadmap

KEY

NATIONAL SYSTEMS

- Rolled Out
- Rolling Out
- In preparation
- Linked Systems (see other Portfolios)

- Discovery
- Our Partners



HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with our national and local partners we can understand the future direction of healthcare and help enable transformation through data and technology solutions.



Expanding the Digital Health and Care Record



Provide Digital services for patients and the public to enable seamless interaction with health and care services supporting patients to fully participate in their own health and well being



NEED FOR CHANGE

We live in a digital world. The way we work, bank, shop, communicate and interact has made technology and data a core part of our lives. While health and care in Wales has seen significant digital advances, there is the opportunity to do much more, and put digital truly at the heart of patient care. *A Healthier Wales* 2019 set the ambition to provide an online digital platform for citizens, to give people 'greater control and enable them to become more active participants in their own health and well-being'. This will help people to make informed choices about their own treatment and find the most appropriate service for their needs. They can contribute to and share information about their health and care and manage appointments and communications with professionals.

The current approach to citizen digital services is largely uncoordinated and expensive with value diluted across multiple local and national system deployments. This approach results in a lack of joined up records and process, with service offerings split along clinical, geographic and functional lines throughout Wales and between Health Boards, even before looking into future opportunities such as social care and other public sector linkages.

WHAT CAN DIGITAL DO?

Digital services for patients can deliver:

- Enhanced communication and advice between patient and their healthcare provider, enriching the data in the patient's record and reducing the need to visit clinical settings
- Increased efficiency and convenience by providing electronic ways to undertake routine transactions such as booking appointments, ordering prescriptions
- Enabling the patient to feed back on how well they are, whether their treatment has resulted in better outcomes, their experiences and preferences related to their care
- Self monitoring of health and sharing that data with clinicians, eg from wearable devices
- Help carers to see where their loved ones are on the patient journey



Citizen



Patient



Carer



Care
Provider

DIGITAL HEALTH AND CARE WALES' ROLE

The vision is to establish a core platform of digital services - developed by multiple parties and forming a best of breed product approach working in an innovative, efficient and safe fashion. Most importantly, all service offerings sit on top of this common platform which needs to define both technical and clinical information interoperability standards, as well as providing identity management and access and a degree of control over the citizen experience.

Digital Health and Care Wales has supported the set up of the Digital Services for Patients and the Public Programme and will undertake the procurement and delivery of the platform. Our staff and health board colleagues working on the National Data Resource Programme (NDR) will work to support the development of the data and information architecture required to open up access to NHS held data. This patient platform will contribute the 'Patient Facing Data' component of the National Data Resource.

THE IMMEDIATE FUTURE:

- Take forward the Digital Services for Patients and the Public Programme (DSPP) as the default coordinating body for patient facing digital services across the NHS and social care space in Wales
- Work with our health and care partners, the Centre for Digital Public Services and assurance groups to prioritise the citizen centred functionality for delivery of patient and public digital services
- Finalise procurement activities and award contracts for the key commercial partners delivering the digital patient and public platform
- Establish the digital patient and public core platform services, including working with the National Data Resource programme to develop the data and information architecture required to open up access to NHS held data in a safe, secure and auditable fashion.
- Deliver a proof of concept to demonstrate that the digital patient and public core platform concept works, to demonstrate supplier capabilities and to support the scoping and development of the baseline functionality

Self care and empowerment, feed back and communication





Provide digital services for patients and the public to enable seamless interaction with health and care services supporting patients to fully participate in their own health and well being



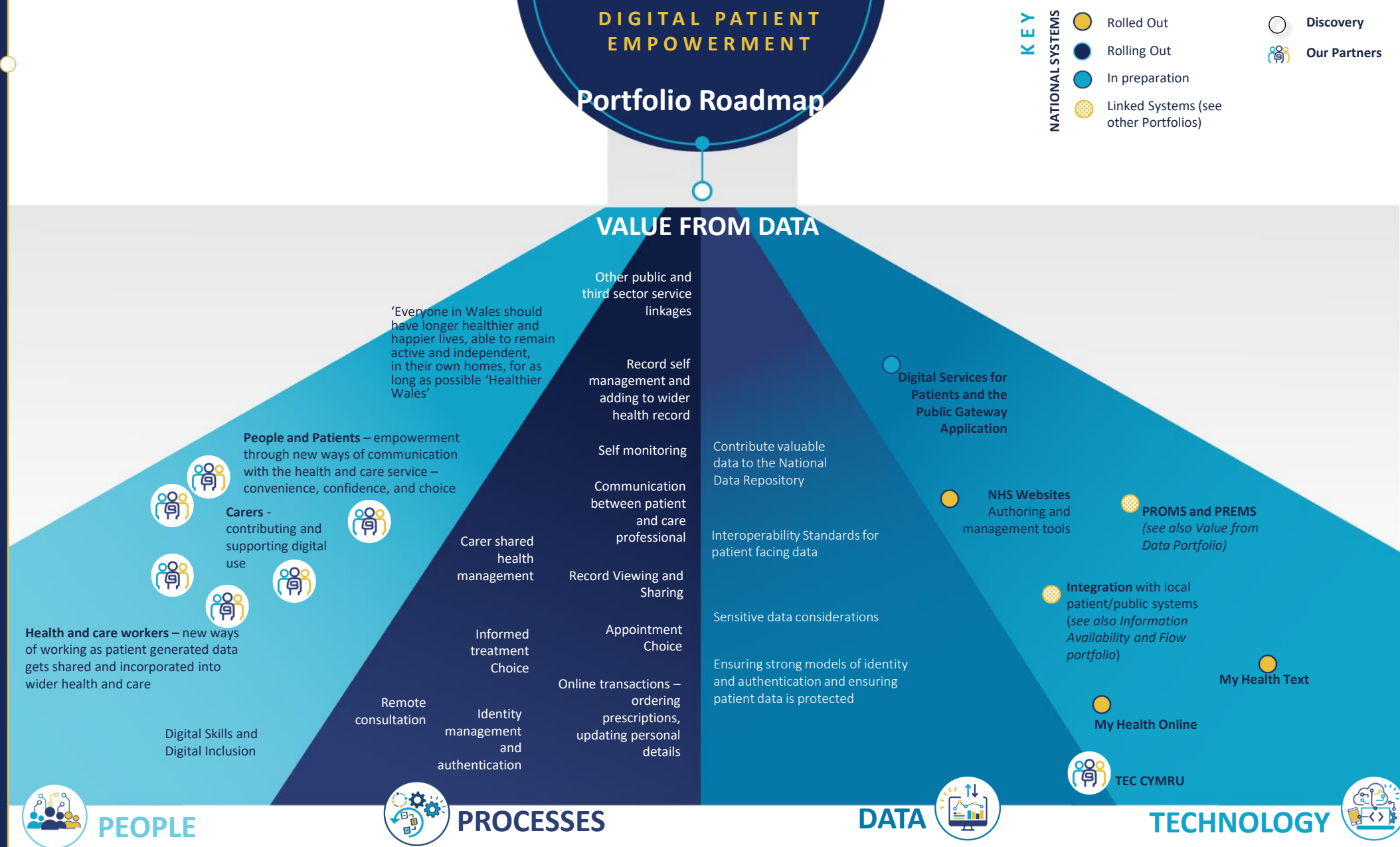
FUTURE STATE:

An Online platform to give people greater control and be more active participants in their own health and well-being. Informed choices about their own treatment and care. Contributing to and sharing their health and care data and working with others to co-ordinate the seamless care and treatment they need.



CURRENT STATE:

Limited health digital offerings compared to other areas of life and work. Confusing choice for patients based on location driven services rather than individual needs and experiences.



HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with patients and citizens, and our national and local partners we can understand the needs and future direction of healthcare and help enable transformation through data and technology solutions.

PUBLIC HEALTH VISION

NEED FOR CHANGE

Public health strategy in Wales focuses on improving health and well-being and reducing health inequalities. This is in the face of challenging times when populations are living longer but with long term conditions; there is a growing disparity in wealth; and there are emerging threats such as antimicrobial resistance and infectious diseases. One such threat materialised with the Covid-19 pandemic. Public Health Wales' Strategy 2018-2030 focussed on areas particularly relevant in the light of Covid-19, eg, improving mental well-being, promoting healthy behaviours, supporting the focus on prevention and early intervention and protecting the public from infection.

As part of the Welsh Government response to lead Wales out of the Covid-19 pandemic, a Public Health Protection Response Plan outlined major activities for concerted public health action:

- Preventing the spread of disease through contact tracing and case management. (Prevention efforts have accelerated through a national vaccination programme in 2021.)
- Population surveillance
- Sampling and testing different people in Wales.

WHAT CAN DIGITAL DO?

- Support the Pandemic response with testing systems and dashboards of disease trends
- Prediction modelling and identifying risk areas
- Support prevention activity through digital booking, data recording and reporting of vaccinations
- Joining up information from screening programmes with other patient data to improve clinical decision making and enhance the patient's journey through a joined up health system
- Supporting the promotion of health behaviours through wearable sensors and digital self monitoring tools



General Practitioner



Testing Centres



Screening Staff



Contact Tracers



Vaccinator



Consultants



Laboratory Staff

Strategic Objective

Delivering High Quality Digital Services

Portfolio Objective

Develop, operate and maintain a set of high-quality national digital services to support Public Health prevention and early intervention programmes

DIGITAL HEALTH AND CARE WALES' ROLE

We have supported public health for many years by providing systems recording data from **screening programmes** such as bowel and new born hearing. We also provide the tools and infrastructure to make digital content available for health promotion campaigns.

Covid-19. 2020 however saw a significant increase of our role in public health with the development of systems to support the **Covid-19 pandemic response**. In extremely tight timescales we adapted our Welsh Clinical Portal to allow **electronic requesting** of Covid tests on a national basis and we built links with other clinical systems and with other parts of the UK so the test results were available to clinicians, strategists and the wider health service. We put in place a digital **contact tracing system** facilitating the collection of data used to track contacts of those who have tested positive. We went live with the **Welsh Immunisation System** to book and record vaccinations, and we have provided **data services** and **dashboards** from shielded patients identification through to intensive care bed capacity.

THE IMMEDIATE FUTURE:

- Scale up and enhance our digital offerings around Covid -19 contact tracing
- Enhancing and rolling out our Welsh Immunisation System
- Ensure Covid-19 systems are sustainable, supported and funded, and not to the detriment of our other solutions
- Support the increasing requirements to deliver flows of Covid-19 testing data to new users, across borders, integrate with new systems and develop a Welsh Pandemic Record
- Build on the Covid-19 business intelligence successes to extend our value from data offerings
- Progress any planned enhancement or transfer of Screening systems, whilst sharing screening results with other systems nationally

test requesting
booking appointments
contact tracing

view results
processing tests
screening services





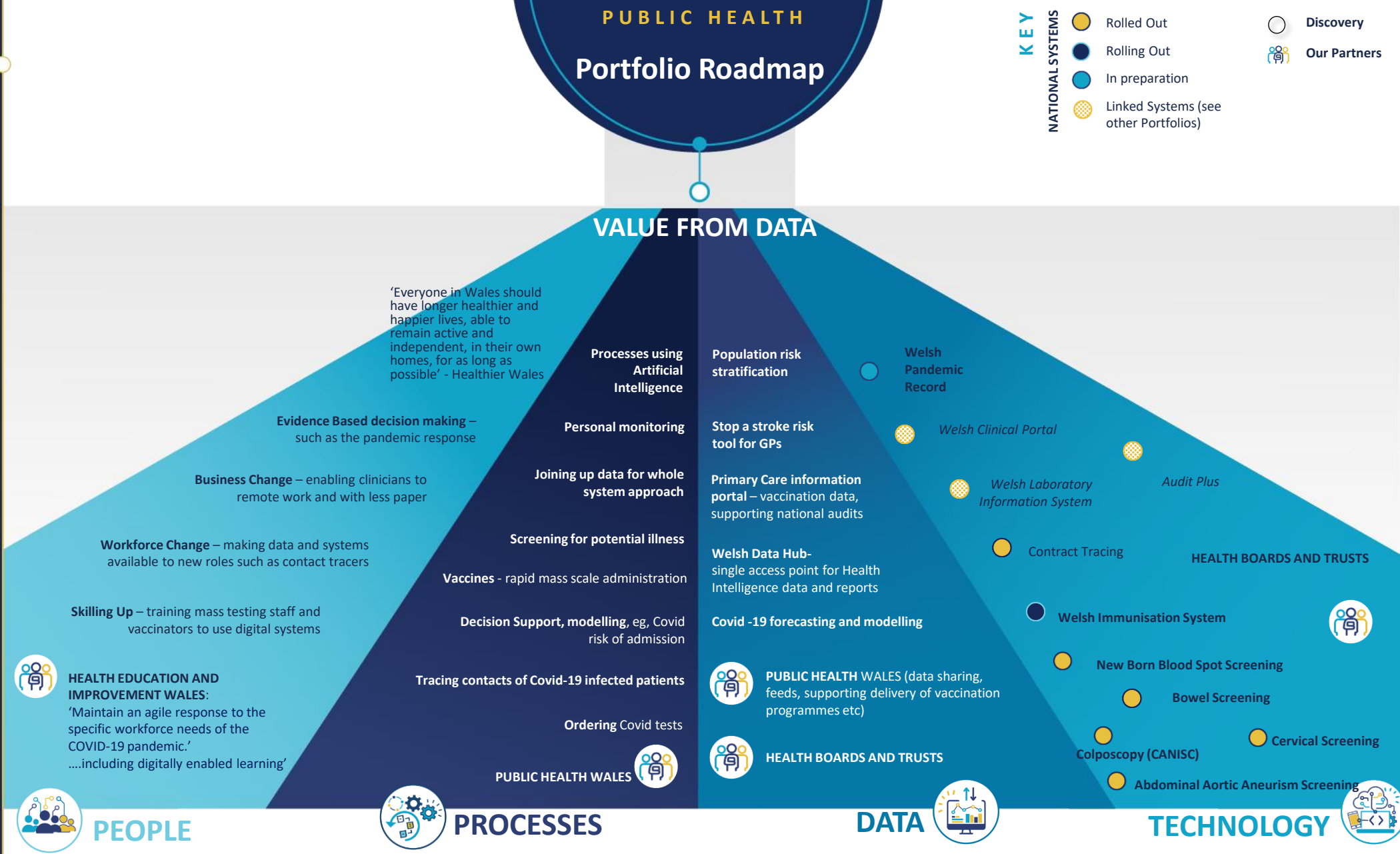
Develop, operate and maintain a set of high-quality national digital services to support public health prevention and early intervention programmes



FUTURE STATE:
Patient centric, electronic processes, extensive quality data, joined up systems talking to each other, data delivering value, proactive, predictive



CURRENT STATE:
Silo systems, limited data standards, piecemeal data sharing, location specific, reactive



HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with our national and local partners we can understand the future direction of healthcare and help enable transformation through data and technology solutions.

PRIMARY AND COMMUNITY CARE VISION

NEED FOR CHANGE

The ambitions of 'A Healthier Wales' 2019 stressed that people should be able to access a range of seamless services delivered as close to home as possible. People would only go to a general hospital when essential. People will be broadly supported by a range of community-based services and activities, building on local community hubs and on GP and primary care support. The Primary Care Model for Wales presents the vision for 'clusters' of professionals – GPs, dentists, pharmacists and others – working together for a local population. Health will work in a co-ordinated fashion with social care 'wrapped around the needs of the individual'. This vision is also reflected in the wider Strategic Programme for Primary Care.

The ability to share information is essential for realising the multidisciplinary workforce needed under new models of care and to support a workforce focussed on the health outcomes of patients. This requires improved quality and consistency of data – key, for example, in the recording of mental health and learning disabilities (Together for Mental Health 2019-2022). The 'Statement of Strategic Intent – A strategic approach to social care data in Wales' was published in March 2021 signifying the intention to work more closely across health and care to make better use of data to improve outcomes for those receiving care and support services. We have contributed to the discovery phase and the statement and are fully supportive of the work.

WHAT CAN DIGITAL DO?

Data is needed to support new models of care so that different clinicians in the same team see the same data. That means making systems available, linking information and making it standard. Seeing this would avoid unnecessary duplicated intrusive tests for patients and co-ordinating care better so community treatment and scheduling is joined up between health and social care staff. Mobile platforms are essential to avoid frequent returns to base.

Sharing data has allowed professionals to share work – community pharmacies are increasingly taking on new services, which GPs historically did.

Register patients, schedule appointments, order tests, view test results, refer, prescribe, plan care, record treatment / care, advise, generate reports / audit data



30 General Practitioner



Practice Nurse



GP Practice Staff



Health Visitors



Community Nurse



Community Pharmacist



Dentist



Social Worker



Allied Health Prof



Mental Health Staff



Strategic Objective

Delivering High Quality Digital Services

Portfolio Objective

Building digital infrastructure across primary and community care by developing, operating and maintaining a set of high-quality national digital services reflecting new models of local care, closer to home

DIGITAL HEALTH AND CARE WALES' ROLE

We manage the contract for GP computer systems – procure and implement the systems and support the practices. In 2020 we enabled GPs to work remotely during the pandemic. We have worked with GPs and local community pharmacies to share data and linkages are now there between secondary and primary care records – avoiding the need for multiple phone calls and time wasted. Our services electronically send referrals and discharges between settings and store millions of records in national repositories.

Our staff work on the Welsh Community Care Information System – which enables the safe sharing of information between health and social care nationally. We also support local community organisations with the roll out of Office 365 and video consultations.

THE IMMEDIATE FUTURE:

- Complete the procurement of a new Framework for GP systems to provide system choice and enable the transfer of data rich patient records between GP Practices whilst looking to future alignment with the open digital health platform
- Continue to support the roll out and platform upgrade of the Community system including the mobile version
- Join up further the systems communicating across primary, community and hospital settings, including pharmacy teams benefitting from further electronic integration with other services and eye care
- Complete the integration of the Dental E-referral Management System with the Welsh Patient Referral Service enabling Dentists to refer seamlessly to secondary care systems.
- Work to continue on agreeing data sets for community care including a mental health data set, and business intelligence dashboard linking health with social care data
- Gather informatics requirements and modernise information availability around primary care services including those working in geographical localities called clusters, where health and care partners collaborate to understand local needs

Portfolio Objective

Building digital infrastructure across primary and community care by developing, operating and maintaining a set of high-quality national digital services reflecting new models of local care, closer to home



FUTURE STATE:

Patient centric, electronic processes, extensive quality data, joined up systems talking to each other, data delivering value, proactive, predictive. Supporting new models of local care and joined up working with social care and other partners



CURRENT STATE:

Silo systems, limited data standards, piecemeal data sharing, location specific, reactive. Start of clusters of professionals and initial roll out of a national community and social care system



HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with patients and citizens, and our national and local partners we can understand the needs and future direction of healthcare and help enable transformation through data and technology solutions.



NEED FOR CHANGE

In a bid to improve patient experience and outcomes for those visiting Emergency Departments across Wales, and in order to move towards a future where Planned Care services in Wales are sustainable, careful balancing of capacity and demand of NHS services is required. Planned and unscheduled care services will be designed around patient needs.

- Planned Care services will understand and minimise sources of variation across Wales to improve performance using evidence based practices consistently and transparently.
- Planned Care services will achieve health and wellbeing with the public, patients and professionals as equal partners through co-production.
- Care for those with the greatest health need first, making the most effective use of all skills and resources.
- A common high-level model of care for emergency departments to ensure that people can access the right staff, at the right place, at the right time.
- The establishment of robust local mechanisms to ensure effective delivery with the right interaction between patients, professionals and organisations.

WHAT CAN DIGITAL DO?

The future lies in improving access to information and introducing new ways of delivering care with digital technologies, which must be at the heart of service plans and the vision for prudent and value based healthcare. Planned and Unscheduled Care services in Wales are developing the use of digital technology to see improvements in service delivery, patient safety, communication, error rates, costs and use of data together with artificial intelligence. The modernisation of outpatients will be supported by patient administration systems able to redefine patient contact situations and help clinical decisions with risk stratification tools. Digital can support:

- Supporting and recording alternatives to traditional ‘outpatient’ attendance and referral process efficiencies
- Improved clinical information flows with less duplication, less variation and more data standardisation
- Remove need for paper charts in intensive care which are time consuming to complete and transport, are prone to errors and degrade over time. Electronic data will help show bed capacity and variation.
- Emergency dept live patient tracking and triage status
- Electronic single view of patient journey

DIGITAL HEALTH AND CARE WALES’ ROLE

The administration of patients along their journey of care is supported by our Patient Administration System, rolled out to most of Wales, recording the activity of referrals, outpatient appointments , admissions, discharges and much more. We also have systems which help clinicians to electronically prioritise referrals. There are other newer systems being rolled out for Planned and Unscheduled Care including the Welsh Intensive Care Information System and the Welsh Emergency Department System.

Our information specialists help standardise the core datasets which will define patient ‘contacts’ and they also provide analysis and insight into planned and emergency activity such as waiting times and targets.

THE IMMEDIATE FUTURE:

- Support the modernisation of outpatients through redefining patient contacts and risk stratification, electronic referral prioritisation, and providing digital solutions to support alternatives to outpatient appointments such as advice between primary and secondary care clinicians
- Support referral pathway efficiencies from hospital to hospital with our patient referral solution
- Roll out a system to support digitalisation of Intensive Care across Wales
- Roll out the Welsh Emergency Department System across Wales
- Implement the patient administration functionality of the current Cancer Solution in Velindre with the Welsh Patient Administration System
- Implement the Welsh Patient Administration in BCU West and then across the health board as a single instance.
- Support the core datasets for new and developing systems in planned and unscheduled care
- Gather requirements for a single view of a patient pathway in secondary care
- Support integration requirements from initiatives such as 111, Eye care, WAST electronic patient care record, Scan4Safety.



Referring, prioritising, booking appointments, advising, diagnosing, recording treatment and care



Portfolio Objective

Develop, operate and maintain a set of high-quality national digital services to enable new models of planned and unscheduled patient care and management



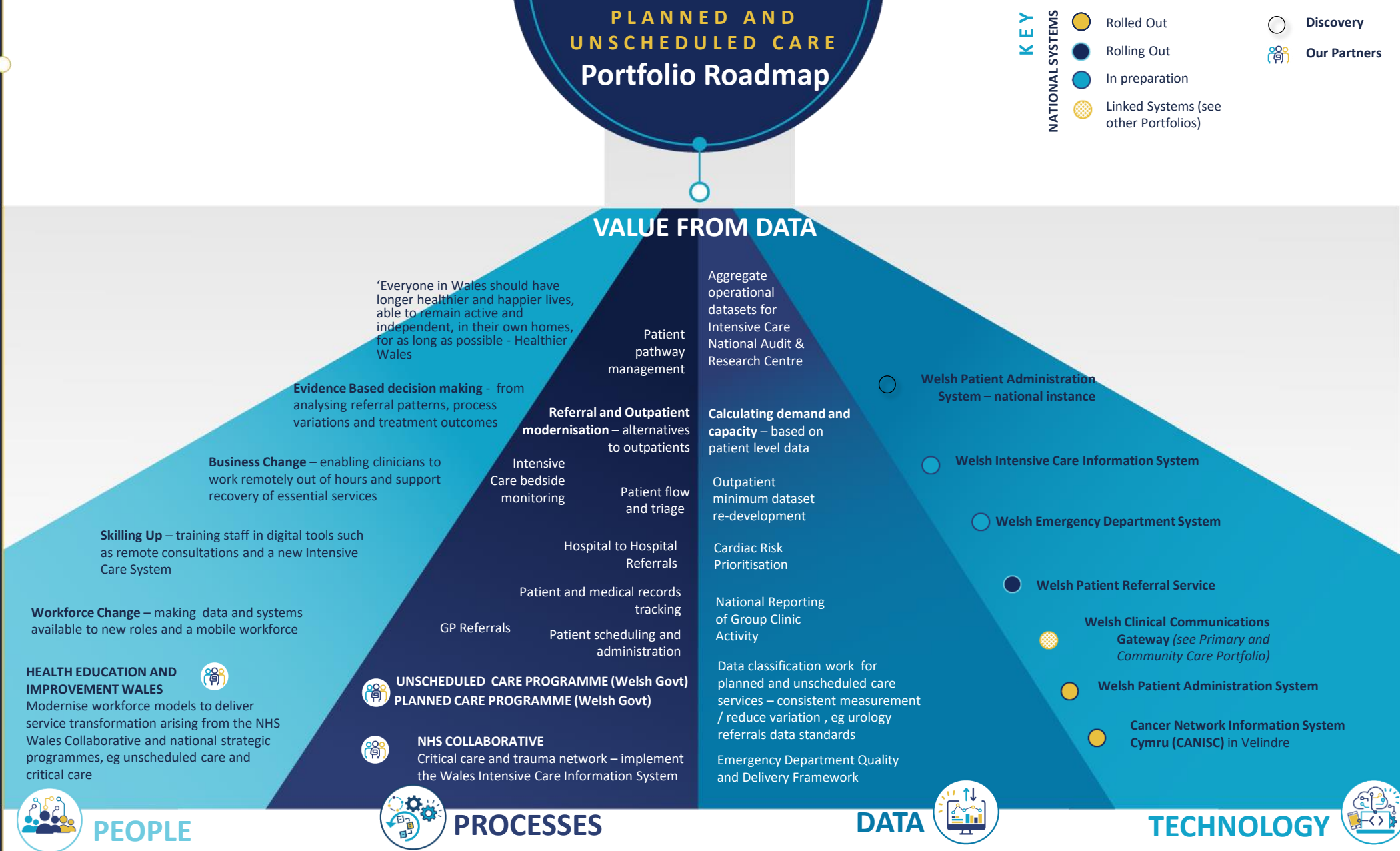
FUTURE STATE:

Patient centric, electronic processes, extensive quality data, joined up systems talking to each other, data delivering value, proactive, predictive. Supporting flexible care models.



CURRENT STATE:

Silo systems, limited data standards, piecemeal data sharing, location specific, reactive. Supporting a historic reliance on hospital attendances and paper systems.



HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with our national and local partners we can understand the future direction of healthcare and help enable transformation through data and technology solutions.



NEED FOR CHANGE

Increasing demand, changes in clinical care, lack of standardisation and scarce expertise have been challenges for diagnostic services for recent years. There is recognition that effective diagnostic services are essential to both the prevention and management of disease. Improvements in diagnostic services can help transform the patient pathway and patient experience and lead to better patient outcomes, improved benefits for NHS Wales and support economic development (*‘Pathology Statement of Intent’ and ‘Imaging Statement of Intent’ – Welsh Government 2019*).

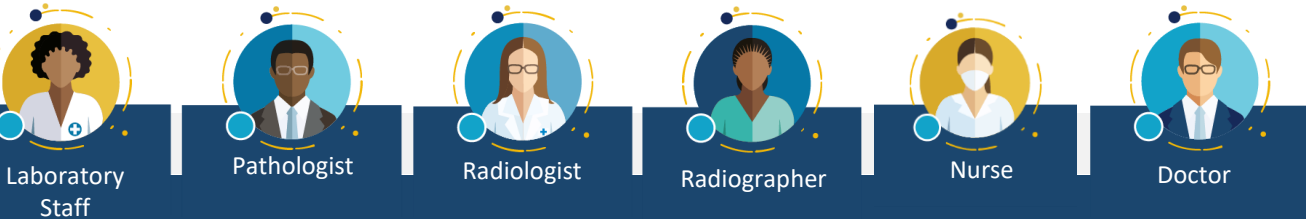
By 2030, NHS Wales aims to:

- Improve service efficiency and effectiveness by identifying opportunities to reconfigure service models for Diagnostics.
- Provide diagnosis closer to the patient to aid the management of life-threatening conditions such as sepsis and infection control, as well as enabling patients to self monitor chronic conditions without visits to healthcare settings.
- Adopt a new strategic approach to the development of high quality, effective and sustainable imaging services for NHS Wales that address the needs of the population, respond to current and future policy direction and ensure long term sustainability.

WHAT CAN DIGITAL DO?

Diagnostic services in Wales are developing the use of digital technology to realise improvements in service delivery, patient safety, communication, error rates, costs and use of data which in turn supports artificial intelligence (AI) which shows promise supporting new model of care and helping with skills shortages. In addition, the fields of genomics, digital cellular pathology and point of care testing are rapidly evolving, driven by cost reduction, increased connectivity and technological innovation. Histologists will use high resolution screens instead of microscopes meaning work can be virtually shared or transferred and opens up the future use of AI in diagnostics.

Standardisation of tests and access to nationally shared images and results see benefits in avoiding duplication and electronic test requesting reduces mistakes and speeds up the process.



DIGITAL HEALTH AND CARE WALES’ ROLE

We provide diagnostic services functionality in numerous systems. This can be supporting specialists in diagnostics with information management and supporting the wider clinical population in terms of functionality to request tests and procedures and viewing the results and reports on an All Wales basis irrespective of organisational boundaries.

Some of our systems are dedicated to the processing of pathology requests and results, such as the Welsh Laboratory Information Management System, whilst others manage imaging and radiology results, such as the Welsh Radiology Information System and the Welsh Image Archive Service. We also provide procurement support to the Picture Archiving and Communications System Framework Implementation and are assisting with new procurements for laboratory and radiology next generation systems.

We will work with the NHS Collaborative to understand the requirements of the Endoscopy Programme.

THE IMMEDIATE FUTURE:

- Support the new national Laboratory Information Management System LINC Programme
- Support the radiology community with solutions such as the new Radiology Informatics Solution Procurement Programme (RISP) including the procurement of new Picture Archiving and Dosage Management Solutions
- Support implementation of electronic radiology requesting across Wales
- Work with diagnostics services across Wales to provide an imaging archiving solution
- Enhance the national availability of diagnostic results and reports into national repositories, eg working with initiatives such as digital cellular pathology

**Order tests, processing and recording results.
View results and reports.
Booking appointments.**





Develop, operate and maintain a set of high-quality national digital services to enable the modernisation of diagnostics



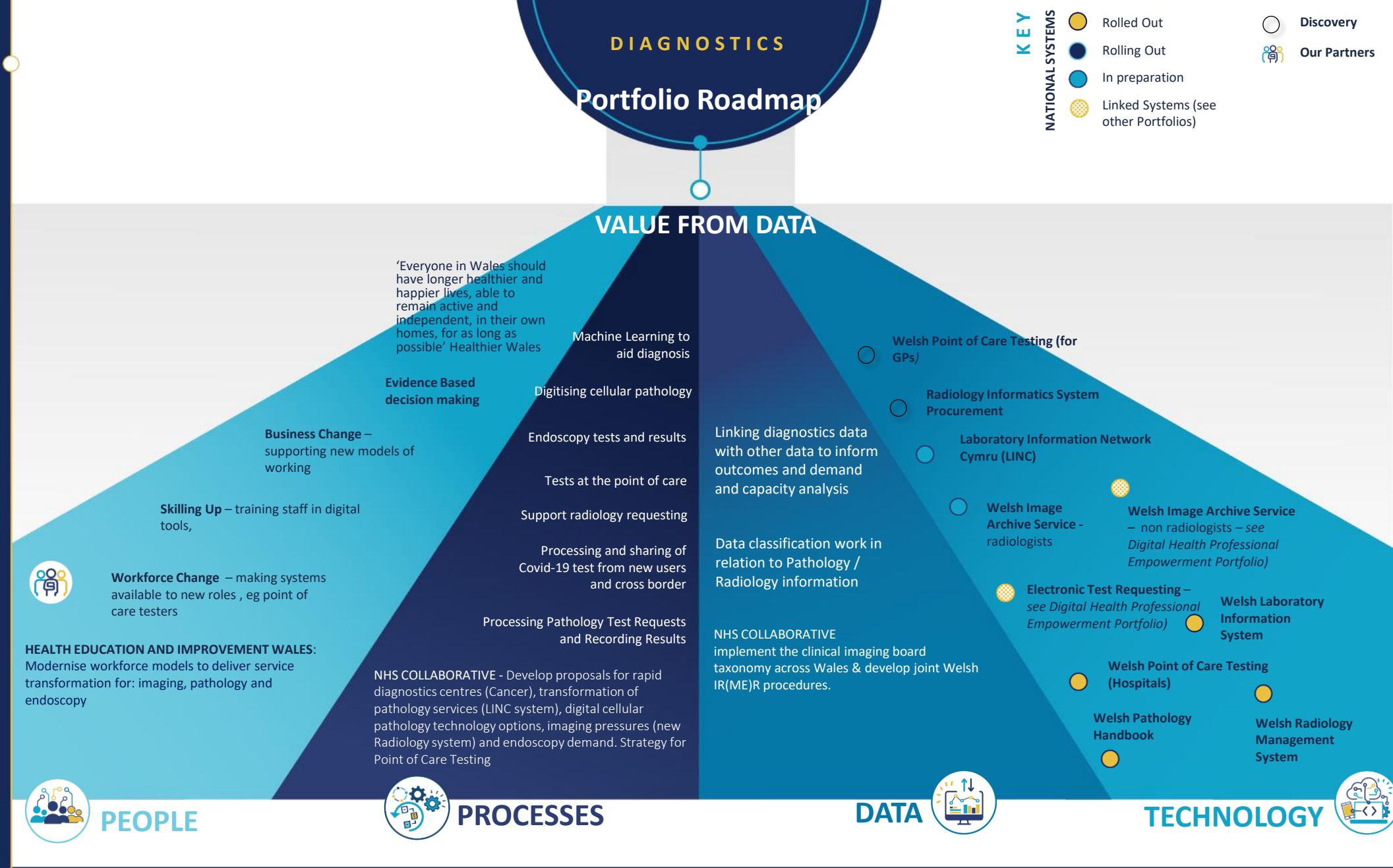
FUTURE STATE:

New service models for diagnostics, service efficiency, data standardisation, diagnosis closer to home. Digital opportunities for genomics, molecular pathology and Point of Care Testing



CURRENT STATE:

Separate radiology system instances, national Laboratory system but not fully standardised, National framework agreement for PACs system but image sharing not in place for radiology specialists. Diagnosis services based at hospital sites.



HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with patients and citizens, and our national and local partners we can understand the needs and future direction of healthcare and help enable transformation through data and technology solutions.



Delivering High Quality Digital Services



Develop, operate and maintain a set of high-quality national digital services to enable modernisation of medicines management

NEED FOR CHANGE

By 2030, pharmacy services will be designed around patient needs. *'Pharmacy Delivering a Healthier Wales'* - April 2019, describes the transformation needed in the role and contribution of pharmacists: 'A transformation which is required to maximise the health gain the citizens of Wales derive from their interactions with the pharmacy profession.' This is coupled with a drive for greater value and finding cost-saving efficiencies. The vision is:

- Care will be delivered in local communities with pharmacy teams integrated with other services to improve the health and wellbeing of the population
- Together, pharmacy teams will improve patient knowledge and use of their medicines, through co-production
- Pharmacists will focus on optimising therapeutic outcomes using tools that include prescribing
- Pharmacy technicians will improve management and use of medicines
- Pharmacy services will support and drive innovation and equitable access to new medicines and related technologies, providing seamless care for the citizens of Wales

WHAT CAN DIGITAL DO?

The future lies in making patients' medicines visible, outside of organisational and professional silos resulting in safer patient care. Management of medicines expenditure improves through better access to data. Further digitalisation, such as all medicines prescribing will reduce the use of paper and this improves safety by reducing the risk of transcribing errors and introduces efficiencies by safeguarding the timely transfer of information.

Improvement from digital comes in the areas of:

- Electronic prescribing
- Electronic medicines administration
- Central patient electronic health record
- Patients access to their own health record
- Online consultations and online triage
- Personal Monitoring Devices and Assistive Technology
- Artificial intelligence systems, Big Data



Hospital Pharmacist



Community Pharmacist



Pharmacy Technician



General Practitioner



Hospital doctor



Independent Prescriber



Nurse

DIGITAL HEALTH AND CARE WALES' ROLE

Medicines management is a vein which runs through many of our digital information services. We already provide medicines management functionality in numerous systems.

Some of our systems are dedicated to the processing of medicines such as our new Hospital Pharmacy System. Others share data about medicines across care setting such as the Welsh Clinical Portal which can be seen in secondary and primary care.

Medicines management is also all about safety and some of our systems, eg Choose Pharmacy, enable the reconciliation of medicines prescribed in secondary and primary care. Our teams have looked extensively at the future opportunities around electronic prescribing and electronic transfer of prescriptions.

THE IMMEDIATE FUTURE:

- Roll out a newly procured national medicines stock control system to Welsh hospitals
- Consider the results of the Welsh Government commissioned Review into E-prescribing and electronic transfer of prescriptions and work out the immediate options to support this
- Work will take place to explore the complexities and opportunities of establishing a Common Medications Record that will enhance the Digital Health and Care Record
- Start to improve the 'data language' of medicines so systems can communicate

Recording and viewing medicines information including vaccines, prescribing, dispensing, reconciling, sharing, reviewing





Portfolio Objective

Develop, operate and maintain a set of high-quality national digital services to enable modernisation of medicines management



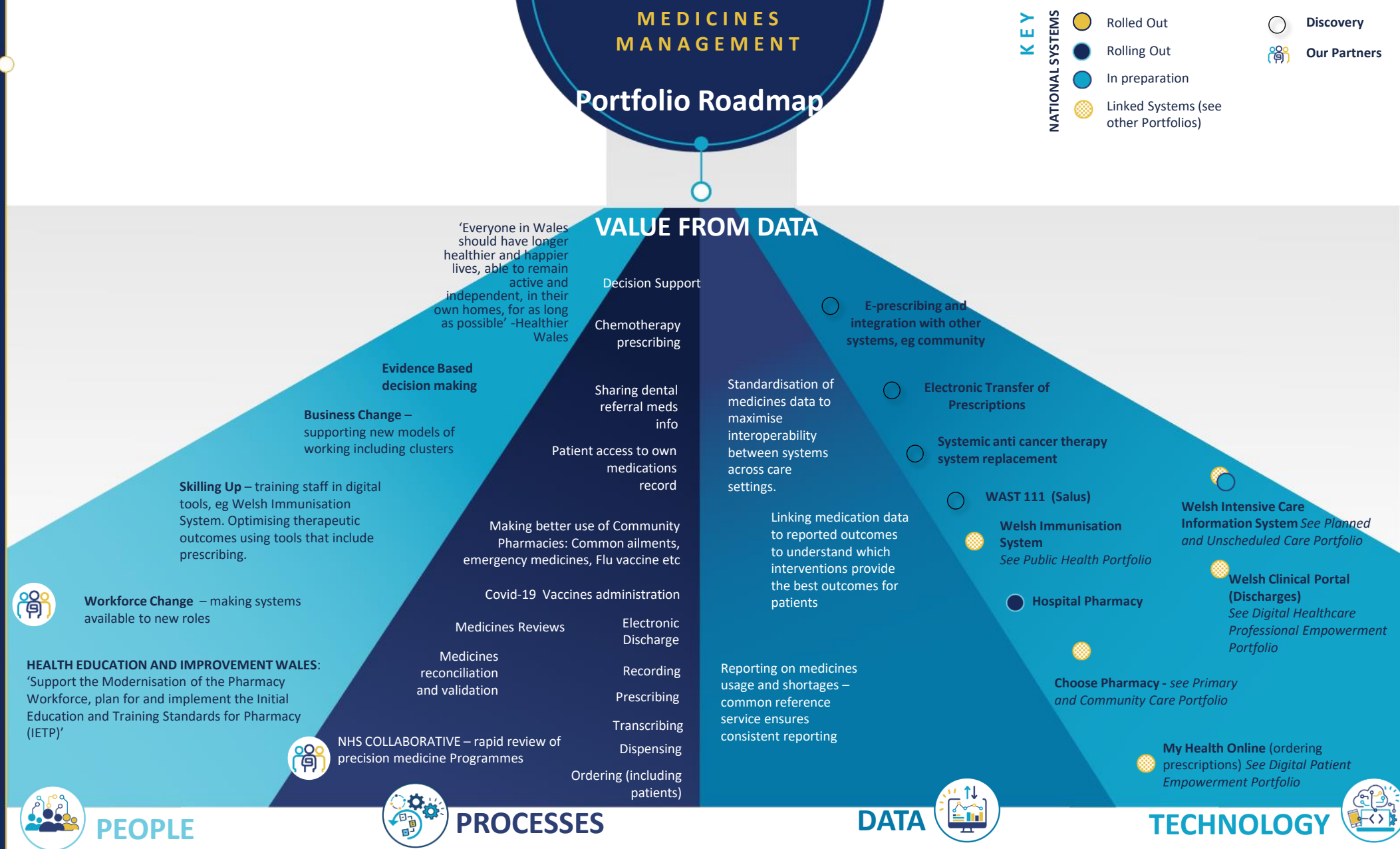
FUTURE STATE:

Patient centric, electronic prescribing and medicines management, extensive quality data, joined up systems talking to each other, data delivering value, proactive, predictive



CURRENT STATE:

Paper prescribing, silo systems, limited data standards, piecemeal data sharing, location specific, reactive



HOW WE WORK WITH PARTNERS: Service change is about people and processes. By working at the start with patients and citizens, and our national and local partners we can understand the needs and future direction of healthcare and help enable transformation through data and technology solutions.



Driving value from data for better patient outcomes and service planning

EXAMPLES FROM PUBLIC HEALTH

COVID-19 DATA HUB

A one stop shop for both summaries and in-depth explorations of data to facilitate more informed decision making in near real-time:

- COVID-19 tests and turn around times
- Health Board situation reports (SITREPS)
- Daily Emergency Department attendances
- Ambulance and 111 calls by Health Board
- Mortality data
- Shielded patient maps

RISK STRATIFICATION

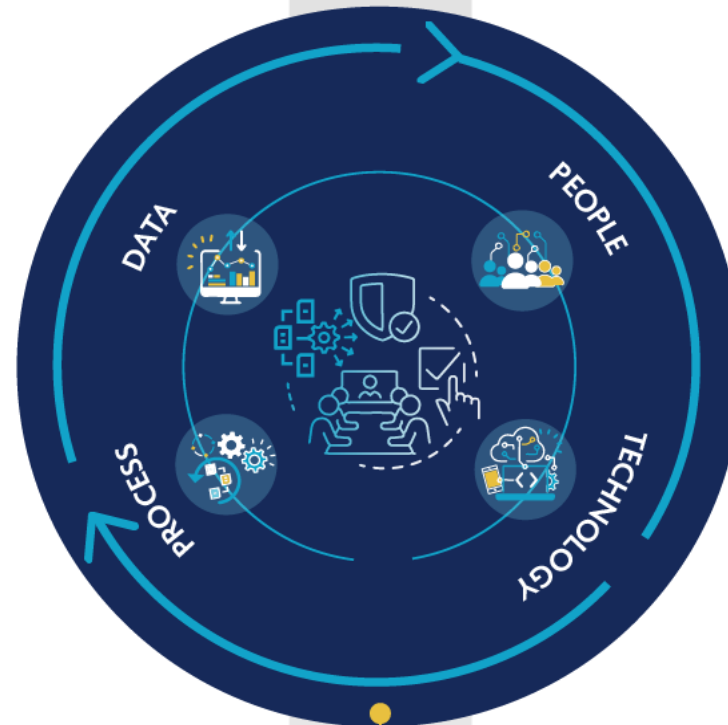
Linking data from multiple sources allows the identification of patients for specific interventions based on a range of risk factors (eg, COVID-19)

EXAMPLES FROM PRIMARY CARE

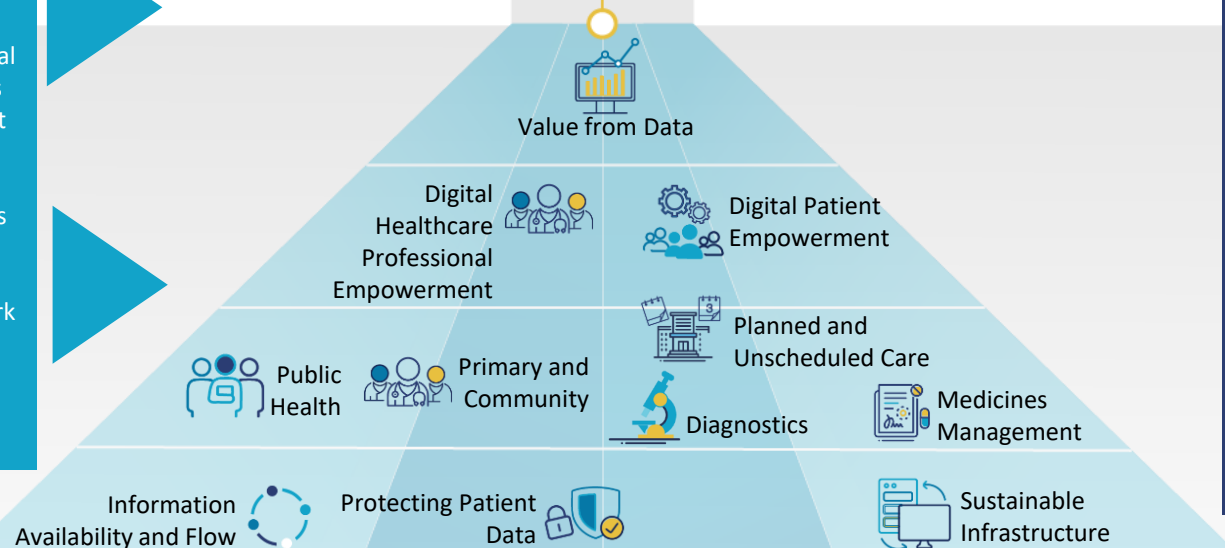
PRIMARY CARE INFORMATION PORTAL

Supports the needs of General Practices, Clusters, Health Boards and Welsh Government at the individual patient and aggregate data levels. The Portal provides a wide range of analyses to benefit both direct patient care and service planning. Main areas of analysis currently includes:

- COVID-19 support around Shielded Patient Lists and Vaccination priority groups
- National Audits and projects (eg Stop a Stroke)
- Quality Assurance and Improvement Framework (QAIF)
- Chronic disease management
- Screening and Vaccinations data for Public Health Wales



VALUE FROM DATA



EXAMPLES FROM PLANNED & UNSCHEDULED CARE

VALUE IN HEALTH

Value in Health website gives health boards the mechanism to implement a Value Based approach to service planning and development. Dashboards on specific clinical areas, such as Lung Cancer and Heart Failure, bring together data from a wide range of data sources providing insight on efficiency and outcomes.

DATA LINKAGE

Linking events data across multiple settings for individual patients benefiting in clearer understanding of patient pathways for improved efficiency.

EXAMPLES FROM COMMUNITY CARE

NATIONAL DATA SETS

Development of datasets to provide insight on delivery of health and social care services and monitor demand, capacity and delivery across Wales. Standardised data will provide benefit in terms of safety, quality, effectiveness and improved outcomes in areas such as Rehabilitation Services, District Nursing, Looked After Children and across Mental Health Services.

THE IMMEDIATE FUTURE:

- We will continue to support the requirements of the COVID-19 response with necessary developments around data, analysis and reporting.
- We will expand the analyses of data in relation to Essential Services provision.
- We will continue the support and development of products in support of the Value in Health Programme, utilising the developing standards for PROMS.
- Formalise R&I arrangements and set out a research approach that is aligned to DHCW's strategic objectives and the needs and demands of the health and care system in Wales.



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NHS
WALES

Iechyd a Gofal
Digidol Cymru
Digital Health
and Care Wales



Our Financial Plan

PLAN

DIGITAL HEALTH AND CARE WALES

2021/22

ANNUAL FINANCIAL PLAN OVERVIEW

THE FINANCIAL STRATEGY

The Financial Strategy of the organisation both supports and underpins the Service Strategy set out within the Annual Plan, it translates the objectives, activity and consequential resource requirements to form a fully integrated financial plan with accompanying mitigating actions to ensure a balanced position can be delivered. A gross revenue requirement amounting to £127.5m is forecast to underpin the resource requirement with capital investments totalling £15.7m being made throughout the year.

The key financial objective is to provide quality and value for money services whilst ensuring a sustainable underpinning financial baseline for the organisation. It is recognised that this is no easy task with the impact of increasing service growth, identifying opportunities for savings/income generations take on greater importance.

	Baseline £m	Digital Priorities £m	COVID 19 £m	Total Revenue £m	Capital Investment £m
Income	94.7	18.4	14.4	127.5	15.7
Pay	37.4	2.7	3.3	43.4	15.7
Non Pay	57.3	15.7	11.1	84.1	
Balance	0	0	0	0	0

KEY PLANNING ASSUMPTIONS

The Financial plan for 2021/22 is predicated upon all Wales guidance and assumptions whilst remaining agile in respect of COVID-19 developments.

Whilst the current plan presents a breakeven position, there are increasing challenges as a consequence of pressures within all service portfolios, consequently a 2% Cost Improvement Target is to be levied on discretionary budgets.

SUPPORTING VALUE

The finance team in partnership with performance and service leads will look to initiate benchmarking projects and service reviews to identify candidates for improvement and action.

Key to ensuring the effective allocation of resources is to implement a transparent and robust benefits identification, management and achievement framework.

Productivity and Efficiency Initiatives

A number of initiatives to generate efficiency through improvements in workforce productivity will be explored initially within the areas specified below:

- A ‘Product Centred’ organisational structure – dedicated multidisciplinary resource centred and assigned to a specific product or service.
- Benchmarking of Services - Wherever appropriate we will continue to commission benchmarking exercises in order to ascertain a clear view in regard to service value for money and to identify areas/means of performance improvement (such as Desktop Service provision).

RISKS AND OPPORTUNITIES

The organisation will continue to closely monitor any risks associated with its financial plan to ensure activity is delivered within financial resources and achieve a break-even position.

Financial risk is managed as an integral part of the overall Risk Management Strategy. The risks identified at the start of the year surround possible slippage in income generating implementations. Whilst recruitment to vacancies within the establishment will be progressed at pace, there is the potential for slippage in expenditure against the budgets set – this has not been reflected within budgets.

ANNUAL FINANCIAL PLAN

REVENUE SOURCE AND APPLICATION OF FUNDING

SOURCE OF REVENUE FUNDS

The source of the majority of the organisation’s revenue income is directly sourced from Welsh Government (circa 78%) including an allocation for capital charges (depreciation). All other anticipated income relates to the payment for a range of services provided to NHS Wales, England and Northern Ireland. Typically, income streams have more of a ‘trading’ relationship (via Service Level Agreements) and consequently can be more volatile in nature due to changes in service levels/terminations. It should be noted that a substantial amount of organisational funding is linked to ring fenced expenditure such as the provision of All Wales contracts (eg, Microsoft licences, specific schemes/initiatives such as Digital Priority Initiatives or services such as Primary Care IM&T Support). Non Recurrent Welsh Government allocations have increased significantly over the last two years as a consequence of the pandemic digital response and additional support of Digital Priority Investment.

Source	£m	%age
Welsh Government Core Recurrent Allocation	42.3	33.2%
Welsh Government Non-Recurrent Funding	32.8	25.7%
Recurrent Commissioner Service Level Agreements	28.5	22.4%
Welsh Government Recurrent Allocation GP IM&T	14.8	11.6%
Welsh Government Recurrent Capital Charges	8.8	6.9%
Welsh Government Other Recurrent Service Level Agreements	0.3	0.2%
Total	127.5	100%

Non recurrent allocations (shaded yellow) support the corresponded shaded items in the application of spend table.

APPLICATION OF REVENUE FUNDS

The projected application of funds to support the plan are identified below.

Application of Funds	£m	%age
Finance, Business Assurance & Estates	20.6	16.2%
Information & Communications Technology	18.7	14.7%
Primary Care IM&T ¹	11.5	9.0%
Application Development & Support	14.7	11.5%
Capital Charges	8.8	6.9%
Engagement & Transformation Services	7.7	6.0%
Clinical Directorate	6.0	4.7%
Information Services	3.1	2.4%
Board & Executive & Other	3.6	2.8%
Digital Priority Investment Fund	18.4	14.4%
COVID-19 Response : Contact Tracing	7.5	5.9%
COVID-19 Response : Mass Immunisation (WIS)	6.9	5.4%
Total	127.5	100%

Notes:

- Finance & Business Assurance allocation is inclusive of All Wales Microsoft contract pass through costs.
- ¹ Primary Care allocation shown net of DHCW resource recharge for Primary Care Support.

THE CAPITAL PLAN

The organisation’s plan is underpinned by investment to support Covid, developments and asset refresh in order to achieve the organisational goals and maintain standards of service and resilience.

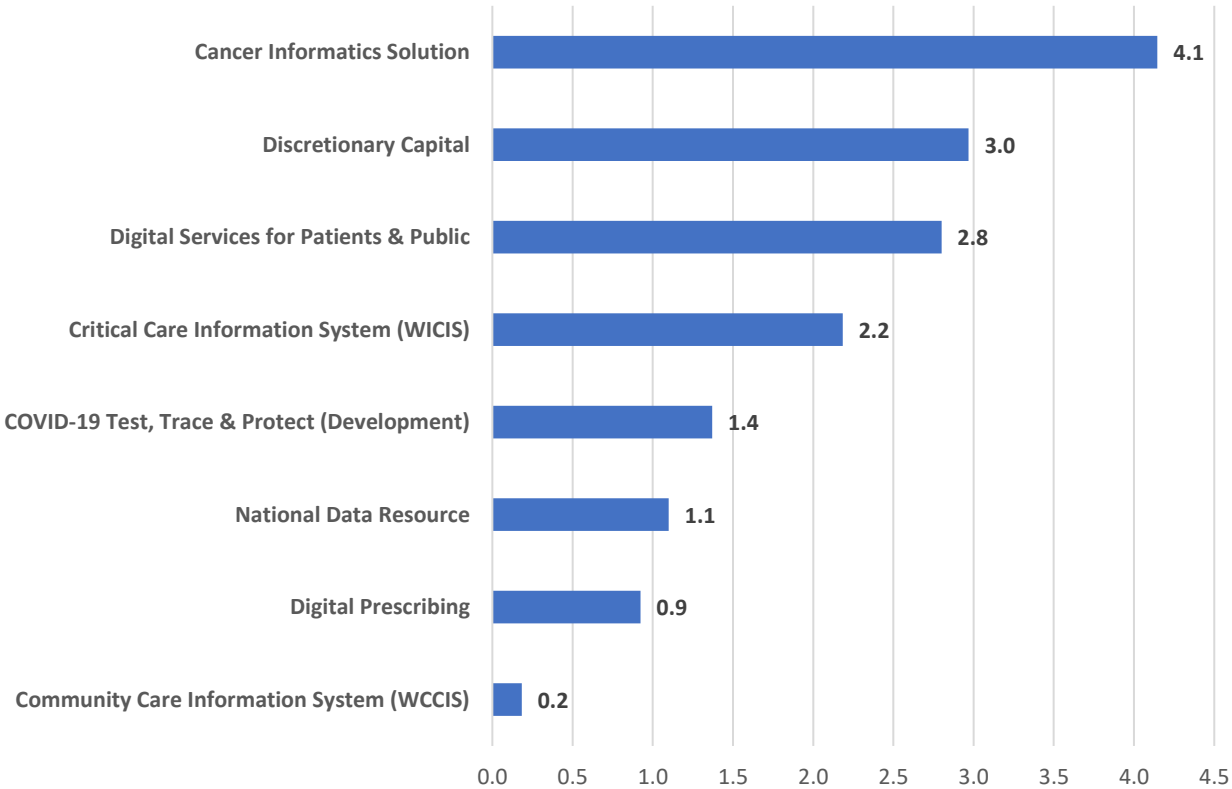
- Capital funds are received exclusively from Welsh Government and are grouped by:
- Discretionary Capital Funding: Available for the organisation to allocate to support Internally prioritised schemes
 - Strategic Capital Funding: Accessed by way of business case (single purpose subject to ministerial approval)
 - Digital Prioritisation Investment Funding (single purpose funding subject to confirmation)

Planned Investments/Developments	Capital £m
Cancer Informatics Solution	4.1
Discretionary Capital	3.0
Digital Services for Patients & Public	2.8
Critical Care Information System (WICIS)	2.2
COVID-19 Test, Trace & Protect (Development)	1.4
National Data Resource	1.1
Digital Prescribing	0.9
Community Care Information System (WCCIS)	0.2
Total	15.7

The organisation requires significant capital investment in order to refresh underpinning data centre services. At present a major proportion of discretionary capital funding has been ring fenced to support some of the immediate requirements.

As part of the plan the organisation will produce a route map and business case to establish requirements, benefits and funding in order to support the transition to Cloud Services.

21-22 Capital Investment £m





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WALES

Iechyd a Gofal
Digidol Cymru
Digital Health
and Care Wales



Our Workforce Plan

PLAN

DIGITAL HEALTH AND CARE WALES

2021/22



AIM:	CHALLENGE:	ACTION PLAN:
<p>extraordinary leadership</p> <p>Our leaders are emotionally intelligent and embrace change, enabling innovation and continuous improvement to deliver the outcomes our partners and users value and want, inspiring and encouraging their teams to do the same. Challenge the status quo to deliver great performance, supported by a focus on personal resilience, resourcefulness and agility, so their teams are equipped to deliver high quality services.</p>	Resourcing	<ul style="list-style-type: none"> • Reviewing opportunities for new roles and skill mix changes • Continue targeted recruitment plans for technical and other specialist roles • Reviewing and adopting new recruitment and retention practices • Access to CPD opportunities and clearer link to career pathways • Continue working with University partners to recruit graduates
<p>great organisation to work</p> <p>All of our people have a great experience at work and they understand the part they play to achieve our vision, outcomes and to deliver an unrivalled user experience. We have an inclusive and diverse culture where our people are supported by their managers and feel confident that their voice is heard. We want everyone to thrive at work and feel empowered to be the best they can be.</p>	Training & development	<ul style="list-style-type: none"> • Succession planning and talent management for key roles • Development of leadership and management programme • Development and implementation of Board and Senior Leadership Programme
<p>strategic workforce planning</p> <p>We will model, predict, prioritise and implement workforce strategies to ensure we interpret workforce requirements to deliver our overall business strategy. This includes strengthening targeted strategies to tackle our gender pay gap, reducing inequality of outcomes and any other significant workforce development needs. These plans are developed with, and owned by key leaders in the organisation, supported by the Workforce and OD team.</p>	Growing our own	<ul style="list-style-type: none"> • Defining career pathways and refreshing our approach to the provision of Apprenticeships, working in partnership with WIDI • Reducing reliance on traditional training routes and increasing part time and internal retraining programmes
<p>grow our own</p> <p>Developing DHCW schemes which translate strategic workforce planning into targeted action, inspiring talent and promoting diversity and inclusion. These schemes will grow the future generation of talent, develop the people we have here now, supporting learning and development at all life stages. It will enable us to develop the skills and capabilities we need now as well as in the future, creating opportunities in our communities to secure our future talent, whilst supporting our industry to promote Digital and Information Technology as careers of choice.</p>	Culture & Organisational Development	<ul style="list-style-type: none"> • Defining our culture and behaviours framework – in line with the vision and values of the new organisation • Improving our understanding of the ageing workforce and succession planning • Compliance with the 85% PADR target supporting regular meaningful conversations with our staff
<p>well-being and engagement</p> <p>Every individual in DHCW will be confident to play their part in delivering best in class service, through excellence in their technical competence and developing emotionally intelligent, well-being and personal skills. They will reach their potential by developing their skills continually with lifelong learning, as an inspiration to colleagues, partners, clients, families and communities whilst enjoying work life balance.</p>	Technology & new ways of working	<ul style="list-style-type: none"> • Development and roll out of the New Ways of Working Strategy and Framework • Maximising use of technology to support an agile culture and flexible workforce
<p>new ways of working</p> <p>Our world is changing exponentially; we have demonstrated that we can adapt to work very differently in challenging circumstances and will continue to build on this model in the next twelve months to optimise the opportunities that technology, innovation and digitalisation bring. Embracing difference and including everyone is a fundamental part of developing a future ready mind-set so we stay ahead of the game.</p>	Well-being and engagement	<ul style="list-style-type: none"> • Continue to focus on managing sickness absence levels below the Welsh Government target • Continuing to contribute to 'A Healthier Wales - Workforce Strategy for Health and Social Care'
	Diversity /Equality /Welsh Language	<ul style="list-style-type: none"> • Support the implementation of the Welsh Language Standards • Develop recruitment and development programmes to reduce gender pay gap and inequality of outcomes in terms of career prospects
	Changing the shape of the workforce	<ul style="list-style-type: none"> • Increase in Client Service workforce to support 7 day services • Alignment of the Workforce Plan to future direction on Architecture, Cloud, and data, introduction of new workforce models • Review and define matrix working models

Areas of Focus

The Workforce and OD team played a key part in many different stages of the initial Covid-19 response. Since March 2020, all of our staff have been able to work remotely from their homes with a small number of key roles on a rota to work on site.

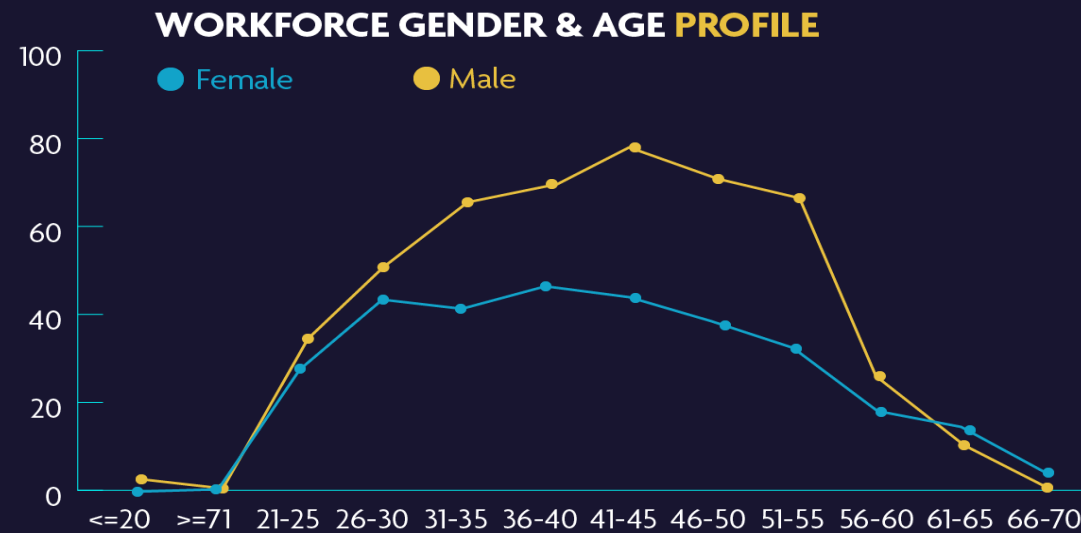
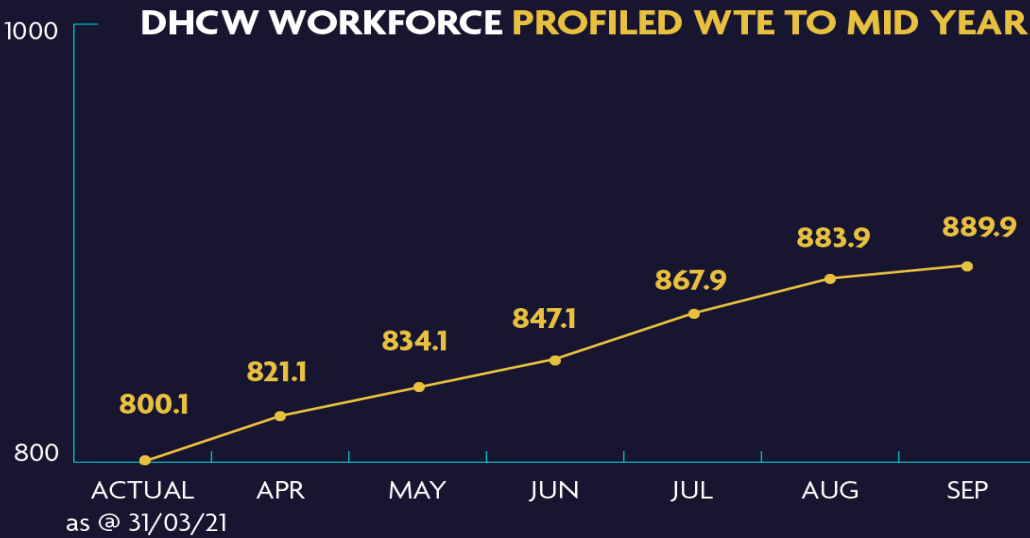
A key focus in the last twelve months that will continue into the new organisation has been our readiness to take on the new responsibilities under the SHA and to ensure that we have the right skills and resources in place to deliver our plan. Recruitment will continue to be a priority, led by our recruitment taskforce, as we increase our workforce to the planned levels. We will also engage expertise and resources through a number of other routes to create more agile and responsive capacity and to bring in specialist expertise as required. Building on the successful industry partnerships established in 2020-21 and material to the successful roll out of Office 365 and the Test, Trace, Protect (TTP) developments. Our aim will be to utilise our Dynamic Purchasing System and enable maximum opportunities for Welsh businesses in particular to work with us to expedite delivery and share innovation and ideas.

We anticipate that this mixed resource model will increase our overall capacity by approximately 20% in 2021-22.

Current Workforce

DHCW currently employs circa 800 WTE (Feb 2021). Over the last 12 months the number of staff in post has increased by 60 WTE. We anticipate that this will increase further to circa 890 during the first two quarters of 2021-22.

Our workforce profile reflects a relatively young mix with succession planning and talent management key aspects of our leadership development programme. We are focused in our recruitment and career pathways planning on equality and diversity to reflect the population in Wales.





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Our Quality and Regulatory Compliance Plan

DELIVERING HIGH QUALITY DIGITAL SERVICES:

Our **Quality and Regulatory** objectives relate directly to **Delivering High Quality Digital Services**.

Quality is at the heart of all we do and from the strategic objectives, we have identified key International Standards that support quality definition and direction.

- Controls – through the Quality and Regulatory Group and part of the Audit and Assurance Committee.
- Planning - Annual Quality and Regulatory Plan and improvements - integrated across the Directorates and supported by the internal audit programme.
- Improvement – The organisation has a strong culture of organisational learning and improvement.

Our internal Quality Framework is known as the Integrated Management System (IMS). All Policies, Standing Operating Procedures, Templates and other guidance can be found in our IMS.

We maintain certification to the following International Standards:

- ISO 9001:2008 Quality Management Systems
- ISO 14001:2004 Environmental Management Systems
- ISO 20000-1:2011 IT Service Management Systems
- ISO 27001:2013 Information Security Management Systems
- BS 76000:2015 Valuing People Standard
- Service Desk Institute

Regulatory focus will develop internal processes, systems and standards to enable compliance with medical devices and other future regulatory developments.



THE IMMEDIATE FUTURE:

QUALITY and REGULATORY COMPLIANCE:

- Ensure that Quality Management Systems support the organisation from a Quality and Regulatory perspective by the implementation of an Electronic Quality Management System (iPassport).
- Ensure management responsibility and commitment is evident throughout the organisation through clear role definitions and responsibilities monitored through the Quality and Regulatory Group.
- A refreshed organisational structure to support the requirements for Quality and Regulation.
- Provide Quality and Regulatory support to enable product realisation by generating a process for end to end product lifecycle that is in line with medical devices requirements.
- Ensure robust reporting tools are in place to enable measurement, analysis and improvement.
- Develop a Regulatory and Compliance Framework to support monitoring and changes to legislation and standards.
- Development of the internal audit framework and support.





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Our Deliverables

PLAN

DIGITAL HEALTH AND CARE WALES

2021/22



Information Availability and Flow

Develop an 'open platform' approach to digital innovation, by responding to national standards for how, data, software and technologies work together, and how external partners can work with the national digital platform and national data resource

- Develop enhanced integration services and repositories as architectural building blocks to enable safe and secure access to data in the digital health and care record
- Establish the structured clinical data repository for Wales as a new architectural building block, utilising a standards-based approach to how data is stored and shared with citizens, clinicians, and software suppliers, starting with cancer treatment, shared medications and allergies as the first implementations
- Continue collaboration and support of the National Data Resource Programme to build the enablers of an open, interoperable architecture from which NHS Wales can derive value and insight from the intelligent use of clinical data

Information Availability and Flow			
Qtr1	Qtr2	Qtr 3	Qtr 4
This coming year is about responding to the Digital architecture review by focussing on drafting a standards framework and devising the approach and priorities for constructing 'architectural building blocks' which will remove architectural debt. Priorities identified in the National Data Resource Business Case will be picked up. Other priorities will be replacing our system which sends messages between our applications and agreeing next steps for a new master patient index.			
Building the ability to record Adverse Reactions using the FHIR standard for exchanging healthcare information electronically - in a Welsh Clinical Data Repository (2704)	Designing a scale up of our Master Patient index to deal with more subscribing systems as a result of the recommendations of the Architecture Review (2697)	Start the procurement of replacement Integration Messaging Service (3345)	Plan the processes associated with the curation of clinical terminologies to technical standards across the national architecture (3245)
Making an operational terminology server available (2762)	Completing the procurement of an Application Programming Interface (API) management system (on an enterprise scale) as part of the National Data Resource programme) (3285)		Report on the impact of adopting new classification systems (3246)
Enable consistent recording using SNOMED CT clinical classification of the core components of the patient record (2891)	Delivering the initial priorities of a national subscription service (3030)		Defining the message flows between the national architecture and the new LINC laboratory management solution (3348)
Start to establish the visions, priorities and plan for 'architectural building blocks' as a response to the Digital Architecture Review (3379, 3380)		Agree strategy/approach to source an Master Patient Index type product beyond the life of the current contract (2354)	
			National terminology service being used for a target of 10 instances of SNOMED CT into systems. (3290)
	Making a catalogue available of a target of 10 application programming interface standards as part of the National Data Resource programme (3291)		
	Set up national data store with clinical data repositories as part of the National Data Resource Programme (3292, 3294)		
	Build a single cancer pathway platform (3295)		
	Continue to populate the national repositories with test results, documents and data		



Protecting Patient Data

Develop an Information Governance and Cyber Security framework, standards and mechanisms that prioritise patient and service user safety and confidentiality, and protect data from external and internal threats, resulting in data remaining secure and NHS Wales being trusted to host patient and service user personal information

- Ensure corporate compliance with ‘information rights’ legislation and standards framework
- Develop and promote a national Information Governance framework that allows the right people to access the right level of personal data at the right time
- Contribute to a national governance structure that identifies threats and maximises opportunities to use personal data lawfully and effectively
- Embed and support the national cyber security agenda including The Security of Network and Information Systems (NIS) Regulations
- Host an independent Cyber Security Resilience unit which holds delegated authority from Welsh Ministers to provide ongoing cyber security assurance activities on behalf of Welsh Government

Protecting Patient Data			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year will focus on setting up the hosting of the Cyber Resilience Unit for Welsh Government and the assessment and assurance around cyber security monitoring. We will also look at the options around our national auditing tool.			
Launch the Cyber Resilience Unit to ensure compliance with the Network and Information Systems (NIS) Directive (3361)	Develop and agree remediation plans following outcomes of NIS Cyber Assessment Framework (CAF) self assessments (3241)		Develop options to replace the Security Information and Events Management (SIEM) solution (3255)
Start the set of up an Information Asset register (3232)	Complete a Business Case for a reprocurement of the National Audit solution (NIIAS) (2642)	Implement the new Vulnerability Management solution in all Health Boards and Trusts (3265)	
Develop a Security Information and Events Management (SIEM) strategy for Cloud Services (3257)	Further enhance the Cyber Incident Response Plan by including specific guidance for particular types of cyber-attacks. (3260)		
Integrate our National Audit tool with the Welsh Community Information System for health users (2639)			



Sustainable Infrastructure

Develop and maintain a high-quality national infrastructure, transitioning to the cloud for better availability, reliability, safety, security, speed and agility.

- Move services from one Data Centre into a new Data Centre and Cloud
- Develop a Cloud Strategy and Business Case for our organisation aligning to the Welsh Government infrastructure review and ensuring a 'cloud-first' approach to the design and development of future services
- Migrate workloads from aging infrastructure and decommission
- Increase infrastructure capacity as required to support the hosted systems and demand from end-users
- Implement new processes and cloud management technologies to enable more optimised PC deployment and management

Sustainable Infrastructure			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year is focussing on our movement from one of our national data centres to a new location. We will also be looking at developing a Cloud strategy.			
New National Data Centre network available (3355)		Complete the migration of services to the new National Data Centre (3357)	
Migration of services start to move to the new National Data Centre (3356)		Decommission the current Data Centre being replaced (3360)	
Upgrading Legacy Systems	Develop a Strategy for movement to the Cloud (3377)		
Maintaining our national systems			



Digital Health Professional Empowerment

Accessing a content rich care environment, agnostic of health board and geographical boundaries by expanding the content, availability and functionality of the Digital Health and Care Record to be the front-door for real-time access to person-specific health and care data.

- Support 'Transforming Cancer Services' by development of the Cancer Informatics Solution using the NHS Wales national architecture
- Support Clinical plans and NHS professionals by enabling recording and linkage of data within the national architecture together with access to clinical documents and knowledge bases
- Further develop the electronic requesting functionality and results notifications across other disciplines
- Embed patient analytics into our systems
- Progress sharing data from secondary care with community staff and vice versa
- Further support remote working for healthcare professionals accessing data from anywhere and anytime, including expansion of both the mobile version of the digital health and care record and Office 365

Digital Health Professional Empowerment			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year we will continue to expand the functionality available for health boards to use in our Welsh Clinical Portal product. This includes the ordering of different types of tests, notifications of tests, making the test results and other clinical documents available in national repositories, and recording clinical content using electronic forms for cancer, nursing and diabetes. The replacement of our out-of-support Cancer system with a solution using the national architecture is a key initiative to maintain information availability for cancer treatment.			
Cancer			
Completing the new Cancer Informatics Solution requirements (2232)	Develop the minimal viable product for Cancer (2850)		
	Build phase 2 of Canisc interfaces with the national architecture (2952)		
Nursing			
Nursing forms available for all Health Boards in Scope (2156)			
Making enhancements to the Welsh Nursing Care Record system post pilot (3172)	Welsh Nursing Care Record single instance release (3176)		
Diabetes			
Making available Antenatal diabetic assessment forms as part of Welsh Clinical Portal (2208)	Further roll of out diabetic electronic forms across Wales		
Test requesting, mobile, recording and availability of clinical information			
Building the functionality to record adverse reactions using the Welsh Clinical Portal (435)	Re-designed pathology electronic test requesting eform (blood sciences and microbiology) (2179)		Proof of concept developed for a Cardiology test requesting form (2646)
Making Phlebotomy functionality available for piloting as part of Welsh Clinical Portal programme (778)	Make available document viewing as part of Welsh Clinical Portal mobile application (2904)	Making results and clinical documents available in National repositories	
Roll out Electronic test Requesting to Powys community hospitals (3212)	All Health Boards (except ABHB) able to use test result notifications in the Welsh Clinical Portal (3213)		
	Radiology Requesting available for 2nd Health Board to use (1210)		



Digital Patient Empowerment

Provide Digital services for patients and the public to enable seamless interaction with health and care services supporting patients to fully participate in their own health and well being

- Take forward the Digital Services for Patients and the Public Programme (DSPP) as the default coordinating body for patient facing digital services across the NHS and social care space in Wales
- Work with our health and care partners, the Centre for Digital Public Services and assurance groups to prioritise the citizen centred functionality for delivery of patient and public digital services
- Finalise procurement activities and award contracts for the key commercial partners delivering the patient and public platform
- Establish the digital patient and public core platform services, including working with the National Data Resource programme to develop the data and information architecture required to open up access to NHS held data in a safe, secure and auditable fashion.
- Deliver a proof of concept to demonstrate that the digital patient and public core platform concepts work, to demonstrate supplier capabilities and to support the scoping and development of the baseline functionality

Digital Patient Empowerment			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year we will be accelerating our work on a digital service for patients and the public, following a funding award.			
Work to award contracts to delivery partners of the new Digital Service for Patients and the Public platform (3102)			
	Discovery Stage complete and updated delivery proposals available,for approval (3104)	Sign off a Proof of Concept and agree to proceed to a minimal viable product (3105)	Minimal Viable product delivery approved for early adopter deployment (3106)

ANNUAL PLAN SUMMARY DELIVERABLES

Public Health

Develop, operate and maintain a set of high-quality national digital services to support Public Health prevention and early intervention Programmes

Public Health			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year will be about responding to the highest priority requirements around Covid-19 testing, contact tracing and vaccination. New requirements are coming in on almost a daily basis requiring large scale solutions to be implemented in weeks rather than years. As the country comes out of lockdown, it is anticipated that requirements will start to shift to surveillance requirements, serial testing and international travel requirements re Covid-19. The key action is to establish a fully resourced team to both develop new requirements and support the heavily used systems in place and to take pressure off existing staff whose working hours have extended to support a 7day a week, 8am-8pm service.			
Test Trace and Protect			
Respond to the highest priority Test Trace and Protect requirements, eg emerging requirements for vaccine passports and Covid-19 test certificates (3330)			
Continue to support the data and analytics requirements of the Covid-19 response			
Respond to priorities around a citizen facing vaccine booking solution for immunisations			
Integrate Covid-19 tracing system with the National master patient index system (3010)			
First phases of the Welsh Pandemic Record building on current solutions to match high performance demands and mass testing volumes (3064,3065)	Further phases of Welsh Pandemic record		
Establishing a fully resourced support team and operational Governance for all aspects of the testing, tracing and vaccination programme (3315,3316)			
Screening Services			
		Decommission Cervical Screening Service (3306)	

NB: Teams working on **Screening Services** have been redirected to Covid-19 work. Although continual recruitment drives are underway, the planning assumption is that this will take until Qtr 3 to have a fully resourced team. There may also be additional funding requests for extra staff and/or commissioning private sector partners



Primary and Community Care

Building digital infrastructure across primary and community care by developing, operating and maintaining a set of high-quality national digital services reflecting new models of local care, closer to home

- Complete the procurement of a new Framework for GP systems to provide system choice and enable the transfer of data rich patient records between GP Practices whilst looking to future alignment with the open digital health platform
- Continue to support the roll out and platform upgrade of the Community system including the mobile version
- Join up further the systems communicating across primary, community and hospital settings, including pharmacy teams benefitting from further electronic integration with other services and eye care
- Complete the integration of the Dental E-referral Management System with the Welsh Patient Referral Service enabling Dentists to refer seamlessly to secondary care systems.
- Work to continue on agreeing data sets for community care including a mental health data set, and business intelligence dashboard linking health with social care data
- Gather informatics requirements and modernise information availability around primary care services including those working in geographical localities called clusters, where health and care partners collaborate to understand local needs

Primary and Community Care			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year will see further sharing of information nationally between primary, community and secondary care settings. This includes GPs, hospitals, community pharmacists and dentists. We will also support requirements for integration with an eye care system.			
Primary Care			
GP Systems - new GP supplier chosen (3166)	Emergency Medicines E-summaries functionality built in Choose Pharmacy system used by community pharmacists (3203)		Deploy Welsh GP Record (a view of GP data) in priority modules of the Community Pharmacy system as prioritised (3202)
		Further integration between the Dental Referral System and other systems in the Welsh digital architecture (3191)	Access to Choose Pharmacy for Pharmacy Technicians (3228)
	Define informatics requirements for Primary Care 'clusters' (3187)		
Community			
Integration between the Welsh Community Care Information System with the National Audit tool (NIIAS) 2639	Introduction of Mental Health Core data set in a Data Standards Change Notice (2419)	Further phase of defining mental health information data (2853)	
	Integration between the Welsh Community Care Information System with GP referral system (Welsh Clinical Communication System) to receive electronic referrals from GPs (2257)		
Welsh Community Care Information System mobile for piloting (1154)	Integrate between the Welsh Community Care Information System and the Welsh Clinical Portal to share views of diagnostic results, health documents, and the Welsh GP Record (2258)		
	Develop systems so the Welsh Community Care Information System can receive electronic 'Hospital to Community ' referrals (2269)		
	Develop systems so the Welsh Community Care Information System can send electronic documents to GPs and users of the Welsh Care Records Service (2270 and 2271)		

NB: Teams from this Portfolio have been redirected to Covid-19 work. Although continual recruitment drives are underway, the planning assumption is that this will take until Qtr 3 to have a fully resourced team. There may also be additional funding requests for extra staff and/or commissioning private sector partners

ANNUAL PLAN SUMMARY DELIVERABLES



Planned and Unscheduled Care

Develop, operate and maintain a set of high-quality national digital services to enable new models of planned and unscheduled patient care and management

- Support the modernisation of outpatients through redefining patient contacts and risk stratification, electronic referral prioritisation and providing digital solutions to support alternatives to outpatient appointments such as advice between primary and secondary care clinicians
- Support referral pathway efficiencies from hospital to hospital with our patient referral solution
- Roll out a system to support digitalisation of Intensive Care across Wales
- Roll out the Welsh Emergency Department System across Wales.
- Implement the patient administration functionality of the current Cancer Solution in Velindre with the Welsh Patient Administration System
- Implement the Welsh Patient Administration system in BCU West and then across the health board as a single instance.
- Support the core datasets for new and developing systems in planned and unscheduled care
- Gather requirements for a single view of a patient pathway in secondary care
- Support integration requirements from initiatives such as 111, Eye care, WAST electronic patient care record, Scan4Safety.

Planned and Unscheduled Care			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year will focus on supporting the recovery of the health system post Covid-19 and the acceleration of planned and unscheduled care modernisation. This includes supporting remote working by clinicians to give flexibility in treating patients away from hospital settings. Roll outs will start for two major systems for emergency departments and intensive care units, and support will continue for Velindre to move off their old patient booking and administration system.			
Outpatient Modernisation			
Further functionality to support Clinicians working remotely but providing access to patient administration information as well as clinical (2624)	Further developments of an electronic outpatient continuation sheet replacing paper (2833)		Enhancements to Hospital to Hospital referral functionality (2969)
Supporting remote advice to reduce outpatient appointments by providing functionality for GPs to receive electronic advice from secondary care clinicians (2585)	Data work to support modernisation of outpatients - recording different ways of communicating about health with patients (3252)		
Welsh Patient Administration System Interim Strategy - considering different organisational configuration and pathway management (3388)			
	Welsh Patient Administration System data migration in Velindre Cancer Centre - replacing the administration functions of the out-of-support Cancer system (CANISC) (1701)		
Preparatory Work for BCU West go live with Welsh Patient Administration System - design, configuration, data mapping (3386)		Welsh Patient Administration single instance for BCU West and Central - core migration to database complete (3387)	
Rolling out new Specialty systems			
	Welsh Emergency Department System available for roll out in first health boards (2603) (727)		
			New system for digital intensive care - minimal viable product to be available (3077)
			Full roll out of the digital intensive care system in 1st health board (3078) and testing in 2nd health board (3081)

NB: Teams working on this portfolio have been redirected to Covid-19 work. Although continual recruitment drives are underway, the planning assumption is this will take until Qtr 3 to have a fully resourced team. There may also be additional funding requests for extra staff and/or commissioning private sector partners



Diagnostics

Develop, operate and maintain a set of high-quality national digital services to enable the modernisation of diagnostics

Diagnostics			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year will involve supporting re-procurements of laboratory and radiology systems, as well as piloting image sharing.			
Supporting the new Laboratory Information System Programme (LINC)			
Reviewing and agreeing the requirements for DHCW for a new Radiology Informatics Solution procurement (2984)	Submitting an Outline Business Case to Welsh Government for the new Radiology Informatics Solution (2982)	Piloting the All Wales Image Sharing system (WIAS) so radiology clinicians can share images across Wales. (1555)	
Supporting the drafting of a business case for a Point of Care solution for GPs - the development and implementation of POCT connectivity into Primary and Community care settings. This allows pathology and biometrics measurements to be tested at the point of patient contact which could avoid the need to send to a lab. This can include COVID-19 and Flu triage. (3329)			
Supporting the implementation of electronic radiology requesting across Wales			
Making diagnostic results and reports available in national repositories			

- Support the new national Laboratory Information Management System LINC Programme
- Support the radiology community with solutions such as the new Radiology Informatics Solution Procurement Programme (RISP) including the procurement of new Picture Archiving and Dosage Management Solutions
- Support implementation of electronic radiology requesting across Wales.
- Work with diagnostics services across Wales to provide an imaging archiving solution
- Enhance the national availability of diagnostic results and reports into national repositories, eg working with digital cellular pathology initiatives



Medicines Management

Develop, operate and maintain a set of high-quality national digital services to enable modernisation of medicines management

Medicines Management			
Qtr1	Qtr2	Qtr 3	Qtr 4
This year will see further roll out of our stock management solution for Hospital Pharmacies. We also will consider the findings of a Welsh Government commissioned review of digital medicines management and will propose a way forward for electronic transfer of prescriptions between GP practices and community pharmacies and take forward a national approach to electronic prescribing.			
Further roll out of the Hospital Pharmacy system to five more health boards / Trusts (2945, 3088,3089,3092,3093)			
Commence requirements work on the preferred solution to enable the Electronic Transfer of Prescriptions between GP Practices and Community Pharmacies following the outcome of a Welsh Government commissioned review (3298)			
Develop a plan for Hospital ePrescribing following Welsh Government Review (3145)			
Consider the approach to a Common Medicines Record following WG Review including improving the 'data language' of medicines so systems can communicate (3149)			

- Roll out a newly procured national medicines stock control system to Welsh hospitals
- Consider the results of the Welsh Government commissioned Review into E-prescribing and electronic transfer of prescriptions and work out the immediate options to support this
- Work will take place to explore the complexities and opportunities of establishing a Common Medications Record that will enhance the Digital Health and Care Record.
- Start to improve the 'data language' of medicines so systems can communicate



Value from Data

Driving value from data for better patient outcomes and service planning

Value from Data			
Qtr1	Qtr2	Qtr 3	Qtr 4
The focus this year is to continue to support through data provision and analytics, the Covid-19 response and the recovery of essential services post covid. Additionally further support and development will take place for the Value in Health programme.			
Continue to support the data and analytics requirements of the Covid-19 response			
Facilitate better information sharing to improve the ability to derive value from data			
Further PROMS and PREMS forms as requested including a musculoskeletal form (2998)			
Scope out the requirements and service options for the development of a Research and Innovation Programme (3331)			
Value Based Healthcare Dashboards - Neurological Conditions (3271)	Value Based Healthcare Dashboards - Stroke (3273)	Value Based Healthcare Dashboards - Cataracts (3275)	Value Based Healthcare Dashboards -Epilepsy (3276)
Value Based Healthcare Dashboards - Colorectal cancer (3272)	Value Based Healthcare Dashboards - Inflammatory Bowel Disease (3274)	Value Based Healthcare Dashboards - Lung (3279)	
Value Based Healthcare Dashboards - Heart Failure (3277)	Value Based Healthcare Dashboards - Myeloma Phase 2 (3278)		
Continual development and support the scope of Essential Services Programme including available data identification, investigations and analytical work (3328)			

- Continue to support the requirements of the COVID-19 response with necessary developments around data, analysis and reporting
- Expand the analyses of data in relation to Essential Services provision
- Continue the support and development of products in support of the Value in Health Programme, utilising the developing standards for Patient Recorded Outcome Measures (PROMS)
- Formalise Research and Innovation arrangements and set out an approach aligned to DHCW's strategic objectives and the needs and demands of the health and care system in Wales



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Appendix 1

Well-being and Future Generations Act

A HEALTHIER WALES:

Welsh government wants everyone to have long, healthy, happy lives. For this to happen we need to help people look after themselves well, and we need to make sure we have [the right health and social care services](#) to help people stay well, get better when they are ill, or to live the best life possible when they have problems that won't get better.

A Healthier Wales is Welsh Government's long-term plan to deliver on the aspirations summarised above. Our role as Digital Health and Care Wales is to deliver on the digital technology needed to support our NHS Wales staff and the people of Wales in improving the health and well-being of our country. Wales has shown that it is able to deliver healthcare differently, enabled by digital services

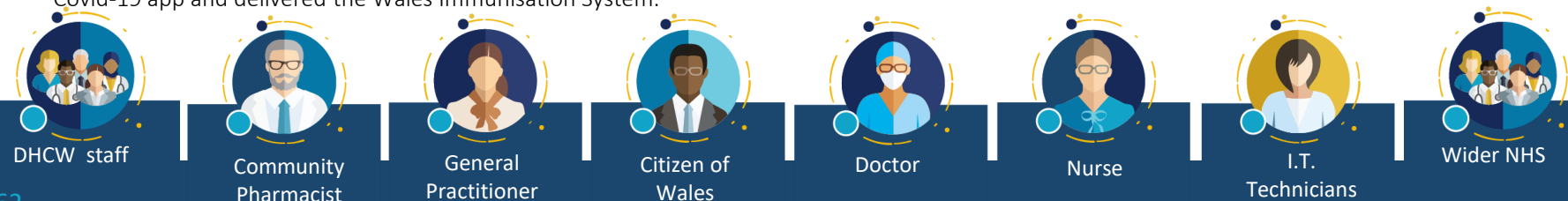
Our approach to delivering on a Healthier Wales for the period 2021-22 year is highlighted throughout this plan and includes the following – much of which has been achieved over the last year in response to Covid-19:

- More patients can view elements of their GP record online, as well as book appointments with their GP and request repeat prescriptions.
- We have rolled out Microsoft 365 with Teams and other modern apps to enable better communication and collaboration with colleagues both within DHCW and across NHS Wales.
- The Digital Health and Care record has been enhanced to enable health and care professionals to treat patients remotely during the pandemic and the Welsh PAS has been enhanced to ensure that patients don't get missed for follow-up.
- All GPs can work remotely, either via a laptop or connecting remotely to the surgery system.
- Significant enhancements have been achieved in electronic pathology and radiology requesting, including testing from community testing centres.
- We have delivered the testing system, contact tracing platform, integrated with England on the Covid-19 app and delivered the Wales Immunisation System.

THE IMMEDIATE FUTURE:

As a Special Health Authority from 1st April 2021 we will further develop our approach to sustainable development with our Board, as well as the following key areas described throughout our plan:

- Information availability and flow – develop an 'open platform' approach to digital innovation, by responding to national standards.
- Protecting patient data - develop an Information Governance and Cyber Security framework.
- Sustainable infrastructure – develop and maintain a high-quality national infrastructure.
- Digital healthcare professional empowerment – accessing a content rich care environment agnostic of health board and geographical boundaries.
- Digital patient empowerment – provide digital services for patient and the public.
- Public Health – services to support public health prevention and early intervention.
- Primary and community care – build digital infrastructure across primary and community care.
- Planned and unscheduled care – services to enable new models and planned and unscheduled care.
- Diagnostics – services to enable the modernisation of diagnostics.
- Medicines management – services to enable the modernisation of medicines management.
- Value from Data – drive value from data for better outcomes and service planning.



We will develop our longer-term plan towards A Healthier Wales in 2021-22.



A WALES OF VIBRANT CULTURE AND THRIVING WELSH LANGUAGE:

The Welsh Government's [Cymraeg 2050](#) strategy describes an ambition to reach a target of 1 million Welsh speakers by the year 2050. A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.

As an organisation we have a responsibility to create the right environment for new learners to acquire and use the language, and for fluent speakers to converse and conduct at least part of their day-to-day working life in Welsh, also being able to transact with colleagues and partners outside the organisation who wish to converse in Welsh. Additionally, there will be a goodwill and a feeling of ownership regarding the language amongst those who do not speak it.

We will adopt the principle established in the Welsh Language Act 1993 that, in the conduct of public business in Wales, the Welsh and English languages should be treated on a basis of equality. This relates to all of our activities, systems and services.

We have also committed to provide a level of Welsh Language services equivalent to the Welsh Language Standards being adopted by similar public organisations in Wales.

We will continue to manage our responsibilities for use of the Welsh Language using our Welsh Language Action Plan to monitor progress and improvements.



THE IMMEDIATE FUTURE:

Activities being undertaken throughout the organisation to actively promote use of the Welsh Language include:

- Within the first 6 months operating as a Special Health Authority we will develop and consult upon a Welsh Language Scheme.
- We will continue to lead on all-Wales work to optimise the quality and quantity of Welsh Language services that we are able provide.
- Further develop our multi-disciplinary team, inclusive of Welsh speakers and representatives of all activities undertaken, to ensure compliance. The team is led by an Informatics Service Director, and includes a technical lead (both of whom speak Welsh as a first language), to ensure Welsh language requirements are considered in all existing and new developments.
- Continue to refine our national systems to support NHS Wales organisations.
- We have entered into an agreement with NHS Wales Shared Services Partnership for translation services.
- We have identified which roles require Welsh Language skills to be an essential requirement and are actively recruiting Welsh speakers.
- Ongoing engagement with the Welsh Language Commissioner and Welsh Government.
- We will run Welsh lessons for all abilities (we are also exploring opportunities for intensive tutoring of those with intermediate skills to allow them to quickly progress to a level whereby they are confident to use the Welsh language during the working day).

We will continue to raise awareness of the Welsh Language by the publication of articles, newsletters and awareness sessions.



A GLOBALLY RESPONSIBLE WALES:

A nation which, when doing anything to **improve the economic, social, environmental and cultural well-being of Wales**, takes account of whether doing such a thing may make a positive contribution to global well-being.

Since our staff moved to remote working in March 2020 we have made several improvements to sustainability as part of our new ways of working. Our travel costs have reduced, we have a new estates management strategy with fewer buildings, and the buildings we do retain will be used differently to reduce consumption of stationery, paper, printer cartridges etc. We have developed a more flexible approach to working location, enabling staff to work more from home under a range of options.

We are certified to ISO 14001:2015 Environmental Management Systems standard and as far as is practicable, we implement similar housekeeping and waste management practices throughout Digital Health and Care Wales, encouraging staff to be mindful of energy consumption.

We monitor environmental performance throughout the year and we maintain data on how much:

- waste we send to landfill and the cost of its disposal
- waste we recycle and the cost of its disposal
- electronic waste (WEEE) we dispose of
- electricity and gas we use
- water we consume

Data is captured on a daily, weekly, monthly and quarterly basis, allowing us to track how much waste is being produced and how much energy is being consumed each year.



THE IMMEDIATE FUTURE:

We are committed to achieving continued improvements in Carbon Management, Energy and Water Management, Travel and Transport, Waste Management, Environmental Management Systems, Sustainable Procurement, Awareness Raising and Training. We will be developing longer-term plans for these important issues throughout the period, as follows:

- Waste Management - Minimise waste through careful purchasing, efficient (re)use of resources and recycling of materials, where appropriate.
- WEEE waste - Dispose of all equipment that comes under the Waste Electrical and Electronic Equipment regulations in a compliant manner.
- Energy - Reduce our carbon footprint and save energy across all sites.
- Water - Reduce the amount of water that we consume across all sites.
- Environmental Management - Maintain a structured environmental management system, to promote good environmental performance and ensure continual improvement.
- Legal Compliance - Ensure we remain compliant with all applicable environmental legislation.
- Communication, Awareness Raising and Involvement - Engage with a greater number of our employees year on year for continual EMS improvement.
- Air Conditioning - Minimise the escape of fluorinated gases to the environment.

We have developed a Sustainability Strategy and Action Plan. As we continue to further analyse and implement improvements identified during audits, we will seek to further develop our Sustainability Key Performance Indicators and manage subsequent data.

We update our Sustainability Action Plan every quarter to ensure that consistent improvement is made against our targets.



ATTRACT AND DEVELOP SKILLS, AND PROVIDE OPPORTUNITIES FOR EXISTING AND FUTURE GENERATIONS

A MORE EQUAL WALES: THE SOCIO-ECONOMIC DUTY

The Socio-economic Duty give us **an opportunity to do things differently** in Wales. It puts tackling inequality at the heart of decision making, and will build on the good work public bodies are already doing. Wales aims to develop a society that enables people to fulfil their potential no matter what their background or circumstances.

- We are certified to the **BS 76005 Valuing People** and **BS 76005 Diversity and Inclusion** standards and continue to demonstrate and promote how staff are valued and engaged to utilise their skills, capabilities, experience, behaviours and knowledge to the best of their ability.
- We have published an organisational statement to support **Black Lives Matter** and established a staff forum for our BAME colleagues.
- We have signed the **Step into Health Pledge** which demonstrates our commitment to supporting members of the Armed Forces community to gain employment within NHS Wales.
- We maintain our commitment to the **Time to Change Wales Charter** and have increased the capacity of **Mental Health First Aiders** (MHFA) in the organisation.
- Through a close working relationship with **Wales Institute of Digital Information (WIDI)** we have established Digital Degree apprenticeships, with 26 employees currently on the program. Three employees are undertaking PhD study. Over 100 staff from across NHS Wales are studying Level 3 and Level 4 Health Informatics courses that we have developed with WIDI. 280 of our staff are also members of the British Computer Society (BCS).
- We have in place a **Mentoring and Coaching Programme** to help develop the skills of our current and future workforce. This complements our **Senior Leadership Programme** which has recently focused on transition leadership skills to a Special Health Authority, building resilience into oneself and teams and compassionate leadership.
- With most staff working remotely since March 2020, we have supported **enhanced flexible working** to enable staff to home school their children whilst working. A **New Ways of Working Group** is in place to explore a new model of working and options for the longer-term post pandemic organisation, which will change the way that we work – becoming a modern workplace which will aid recruitment and retention.
- We are members of the **Government Digital Careers Alliance Forum** with colleagues from DVLA, ONS, IPO, and Welsh Government. This forum has been helpful in sharing best practice in supporting our staff during a pandemic with both practical remote working and well-being initiatives.

THE IMMEDIATE FUTURE:

We will continue to promote and support activities which celebrate diversity and inclusion, to support the overarching corporate objectives such as **#BlackLivesMatter**, **#WorkwithMe** and **#Step into Health**

In addition to further increasing awareness of the impact of socio-economic issues and how we can help to close the gap, we will carry out the following:

- Following formal agreement with WIDI we will continue to work with the institute to develop our staff and grow our future pipeline of talent.
- We will continue to encourage and support staff to join the Federation for Informatics Professionals (FED-IP) register as Informatics professionals.
- Delivery of a Senior Leadership Programme and development of new management programme.
- Accelerate recruitment activity through our recruitment taskforce to meet the talent needs of Digital Health and Care Wales.
- With the establishment of the SHA, we will develop a bespoke programme for the new Board.

We will develop our longer-term plan towards A More Equal Wales and the Socio-economic duty in 2021-22.



PROMOTE A CULTURE OF VOLUNTEERING

BY CREATING THE CONDITIONS FOR CITIZENS TO SHARE THEIR EXPERIENCE AND TO LEARN NEW SKILLS

A WALES OF COHESIVE COMMUNITIES:

A Wales of Cohesive Communities encourages the development of communities that are [attractive, safe, viable and well-connected](#). This includes listening to the views of our communities to promote positive inclusion and continually identify barriers and how they can be overcome.

- We have in place a [Coaching and Mentoring scheme](#), working with universities and other public sector organisations in Wales.
- We have a reciprocal arrangement in place whereby our staff deliver [masterclasses](#) to South Wales universities and university lecturers deliver training sessions for our staff.
- The [NWIS in Africa Programme](#) supports SOS Children's Villages and the working group organised a Lesotho fundraising activity in 2020 whereby several of our staff walked, ran and cycled as many miles as possible throughout July to raise money for the charity. The final count was 11,780 miles covered and £1,770 raised.
- Following an inspiring presentation and report by members of our team, we have created conditions where our [BAME colleagues can share experiences and educate](#) and influence the wider organisation.
- Our Business Change Team [supports and educates front-line colleagues](#) across NHS Wales. Of particular note is the support we have provided in the establishment of Community Testing Centres, Nightingale Hospitals and Vaccination Centres, where front-line staff and volunteers were trained and supported in delivery of emergent services.
- Our intranet site provides [advice and guidance](#) for staff on how to deal with some of the personal challenges of the Covid-19 pandemic. For example, suggesting practical ways to manage family and working life whilst living through a pandemic. Some of this guidance comes from sharing of best practice through collaborative initiatives across the wider public sector. Staff have also recorded [Podcasts](#) on subjects ranging from resilience, isolation to positive thinking.
- We recognise the negative mental health influence that necessary social distancing and lockdown can invoke, and to help support our staff through such difficulties we procured a [workshop on anxiety](#), which also enables sharing of practical ways and means to best manage anxiety. Additionally, our [Mentoring and Coaching](#) programme has delivered focused modules on anxiety, resilience and mental toughness, that provide tactics for coping with situations outside of work, family and friends, as well as with colleagues.

THE IMMEDIATE FUTURE:

We will continue with the support mechanisms that we have embedded in the organisation over the least five years, and will further develop those which are new to us or require different approaches.

- The NWIS in Africa programme of work will continue.
- We will continue to evaluate, learn and implement change to support our BAME colleagues.
- We will work towards Platinum Corporate Health Standard, whilst maintaining our Gold certification.

SOS CHILDREN'S VILLAGES:

SOS Children's Villages was chosen by the organisation as its charity of the year in 2019 after two members of staff, Alan Owens and Neil Kitching, visited Lesotho to deliver IT and data training. Whilst over there, they identified a community learning hub based in an SOS Children's Village that needed financial support to complete and make functional.

SOS Children's Villages began working in Lesotho in the 1980s, distributing food and medical supplies as part of an SOS Emergency Relief Programme. Since HIV/AIDS remains one of the country's most striking public health concerns, the organisation has specifically supported families affected by the disease.

Currently, they are supporting young people and children by providing day care, medical assistance and education in two different locations.

When children can no longer stay with their families, they are cared for by their SOS mothers in one of the SOS families.

We will develop our longer-term plan towards A Wales of Cohesive Communities in 2021-22.



WORK TO STRENGTHEN THE INTERNATIONAL RECOGNITION OF NHS WALES AS A CENTRE OF EXCELLENCE FOR DIGITAL INNOVATION

A PROSPEROUS WALES:

An **innovative, productive and low carbon society** which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a **skilled and well-educated population** in an economy which **generates wealth and provides employment opportunities**, allowing people to take advantage of the wealth generated through securing decent work.

- Our strategic alliance with WIDI demonstrates our commitment to ensuring that students in Wales are provided with opportunities through apprenticeships, internships, student and graduate placements, and industry-focused academic programmes. This is complemented by providing our workforce with opportunities in part-time Higher Education alongside their career.
- We regularly maintain attendance at virtual events and awards. Several senior leaders have spoken at international and national conferences /universities and developed articles in published journals.
- Our NWIS in Africa initiative enables us to support the digital needs and education of global citizens.
- We rapidly enabled NHS Wales to work successfully from home at the start of lockdown in Wales, with the technology and equipment needed to deliver safe care. For example, all GPs and their staff in NHS Wales moved to remote working in a short space of time, implementing Microsoft 365, TEAMS and Remote Desktop. We now monitor and react to usage to ensure that colleagues can continue to work with the minimum of disruption.
- We rapidly developed a Data Hub website for data collection, analysis and presentation of data to inform decisionmakers in Wales (including Welsh Government, Public Health Wales, NHS Wales Health Boards and Trusts, Ministry of Defence) giving access to real time information and reports on our NHS Wales response to Covid-19 health pressures, and also reporting for the wider population metrics. The Data Hub now has over 1,100 users.
- Our Director team regularly meets with peers across the four home nations of the United Kingdom to share ideas, successes and innovations. The team also meets with the digital healthcare leadership in the Republic of Ireland.
- We won three prestigious awards in 2020 which recognised our culture, the calibre of our workforce and the significant difference that we are making to the digital transformation of NHS Wales.

THE IMMEDIATE FUTURE:

As a Special Health Authority we will develop our longer-term plan for international recognition as a Centre of Excellence for Digital Innovation.

- We are working on an all-Wales basis to share best practice and embrace partnership working supporting the Director General and Chief Executive of NHS Wales who wants to see more cross-boundary working over the coming years.
- We continue to encourage staff to sign up as a member of the British Computer Society (BCS) to help develop and recognise a robust, capable, and professional workforce.

AWARDS OF 2020:

BRITISH COMPUTER SOCIETY UK IT AWARDS:
BEST PLACE TO WORK IN IT

NURSING TIMES AWARDS: THE NATIONAL
TRANSFORMATION OF NURSING
DOCUMENTATION

MEDI WALES AWARDS: DIGITAL IMPACT –
WELSH CLINICAL PORTAL



We will develop our longer-term plan
towards A Prosperous Wales
in 2021-22.



DHCW staff



NHS Wales
Colleagues



Higher
Education



Global
Citizens



Ministry of
Defence



Welsh
Government

IMPROVE THE HEALTH AND WELL-BEING OF THE CITIZENS OF WALES, HELPING TO SUSTAIN A HEALTHY, PRODUCTIVE POPULATION THAT CONTRIBUTES TO SOCIETY

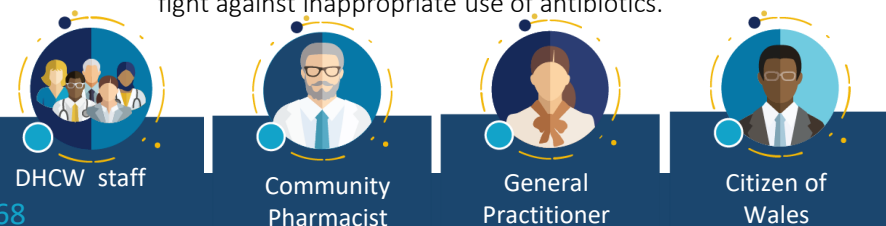
A RESILIENT WALES:

A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change.

As the trusted partner for delivery of digital services in NHS Wales we are key stakeholders in facilitating the improvement in health and well-being of the citizens of Wales by delivering better technology for better care.

- **My Health Online** is available in all GP surgeries and it allows citizens to request repeat prescriptions, make appointments with their GP, and in some cases to see a coded view of part of their medical record.
- **Digital Services for Patients and the Public** is in early stages of development and it will allow citizens to engage in better co-productive dialogue with their healthcare provider, as well as providing them with richer information from their health and care record.
- **Choose Pharmacy** supports the re-balancing of primary care services, reducing the burden on GPs and improving access to a range of health and self-care options that can be delivered by local community pharmacies. At the same time, moving these services to community pharmacies helps to educate the public into understanding their role in making better use of services in ways that support longer term sustainability of NHS Wales resources. Choose Pharmacy provides form-based processes for recording interactions with citizens and helping to bridge the gap between GP and Pharmacist skills.
 - **Common Ailments Scheme** allows pharmacists to consult and provide medications for a range of common ailments, eg acne, athlete's foot, mouth ulcers, etc.
 - **Discharge Medicines Review** provides a way for pharmacists to review medicines with patients when they are discharged back into the community. This provides added safety in ensuring that there are no interactions between drugs; there is then an expectation that the review will help to prevent re-admission to hospital within 90 days.
 - **Emergency Medicines Supply** enables community pharmacists to prescribe medicines to patients for pre-existing conditions when the GP surgery is closed.
 - **Emergency Contraception** can be prescribed to women and girls aged 13+ since 2011. By including the service as part of Choose Pharmacy means that data can be collected to support the actions of the pharmacist and to inform policy makers.
 - **Sore Throat Test and Treat** enables a pharmacist to swab a patient for group A Streptococcus and where appropriate dispense antibiotics. The service helps to reduce the number of antibiotics prescribed and also allows pharmacists to exercise antimicrobial stewardship in the fight against inappropriate use of antibiotics.

- **Seasonal Flu Vaccine Programme** enables community pharmacists to engage in administering flu vaccine to certain groups.



THE IMMEDIATE FUTURE:

As a Special Health Authority from 1st April 2021 we will further develop our approach to A Resilient Wales, further establishing the route map for patient facing services.

- Progress Digital Services for Patients and the Public in line with the key priorities of the national programme.
- We aim to achieve the Platinum Corporate Health standard to continue to better support the health and well-being of our staff.

CHOOSE PHARMACY:

'Pharmacies are at the centre of the community and are often the first port of call for people when they have a health issue.'

'These new services are taking pharmacy to a new level and giving pharmacists the chance to use their clinical knowledge to make sure patients make the best choices about their treatment.'

Elizabeth Lawless: The Health Dispensary

We will develop our longer-term plan towards A Resilient Wales in 2021-22.



A HEALTHIER WALES:

Welsh government wants everyone to have long, healthy, happy lives. For this to happen we need to help people look after themselves well, and we need to make sure we have [the right health and social care services](#) to help people stay well, get better when they are ill, or to live the best life possible when they have problem that won't get better.

A Healthier Wales is Welsh Government's long-term plan to deliver on the aspirations summarised above. Our role as Digital Health and Care Wales is to deliver on the digital technology needed to support our NHS Wales staff and the people of Wales in improving the health and well-being of our country.

Our approach to delivering on a Healthier Wales for the period 2021-22 year is highlighted throughout this plan and includes the following – much of which has been achieved over the last year in response to Covid-19:

- More patients can view elements of their GP record online, as well as book appointments with their GP and request repeat prescriptions.
- Choose Pharmacy has been rolled-out across Wales, enabling community pharmacists to provide patient consultations and prescribe treatments for common ailments, emergency contraception, and to carry out 121 patient medicines reviews following discharge from hospital, as well as other services.
- The Digital Health and Care record has been enhanced to enable health and care professionals to treat patients remotely during the pandemic and the Welsh PAS has been enhanced to ensure that patients don't get missed for follow-up.
- All GPs can work remotely, either via a laptop or connecting remotely to the surgery system.
- Significant enhancements have been achieved in electronic pathology and radiology requesting, including test requesting from community testing centres.
- We have developed the contact tracing platform, integrated with England on the Covid-19 app and delivered the Wales Immunisation System.

THE IMMEDIATE FUTURE:

As a Special Health Authority from 1st April 2021 we will further develop our approach to A Resilient Wales, further establishing the route map for patient facing services.

- Progress Digital Services for Patients and the Public in line with the key priorities of the national programme.
- We aim to achieve Platinum Corporate Health standard to continue to better support the health and well-being of our staff.



DHCW staff



Community
Pharmacist



General
Practitioner



Citizen of
Wales



Doctor



Nurse



I.T.
Technicians



Wider NHS

We will develop our longer-term plan towards A Healthier Wales in 2021-22.





GIG
CYMRU
NHS
WALES

Iechyd a Gofal
Digidol Cymru
Digital Health
and Care Wales














Appendix 2

June 2021 Addendum including response to Welsh Government Feedback

PLAN

DIGITAL HEALTH AND CARE WALES

2021/22

Portfolios	Qtr1 Apr-Jun 2021	Qtr2 Jul-Sep 2021	Qtr 3 Oct-Dec 2021	Qtr 4 Jan-Mar 2022
 Information Availability and Flow	Defining our Architectural Vision	Procuring an Application Programming Interface Management System		
		Building national data stores and standards as part of the National Data Resource Programme		
 Protecting Patient Data	Launch the Cyber Resilience Unit	Support Welsh Government with development of Information Governance Framework		
 Sustainable Infrastructure		Develop the Cloud Strategy	New Data centre move	
 Digital Health Professional Empowerment	Go Live with Nursing Care Record	Cancer Minimum Viable Product		
	Populating the Digital Health Record			
 Digital Patient Empowerment			Proof of Concept of new Digital Service for Patients and Public	
 Public Health	Respond to confirmed requirements for Test Trace and Protect	Respond to confirmed requirements for Test Trace and Protect	Respond to confirmed requirements for Test Trace and Protect	Respond to confirmed requirements for Test Trace and Protect
 Primary and Community Care	New GP supplier chosen	Mental Health Core Data Set	Community data sharing across primary and secondary care	
 Planned and Unscheduled Care	Respond to Covid-19 recovery initiatives			
		Emergency dept system available for roll out		Intensive Care System available for roll out
 Diagnostics		Business Case for new radiology system	All Wales Image Sharing Pilot	
	Electronic radiology requesting available for further roll out			
 Medicines management	Hospital Pharmacy available for roll out	Respond to Medicines Management Review		
 Value from Data	Responding to analytical requirements from Covid-19, Essential Services and Value Based Healthcare			

Note: this is a high level milestone view of funded initiatives.

Triangulation of delivery, finance and workforce

2021-2022

Delivery Projection

Our extra activities include digital solutions for :

- Covid-19 – Test Trace and Protect
- Data Centres services (discretionary plus new business cases)
 - Cancer Care
 - Patient and Public
 - Critical Care
- National Data Resource
 - Digital Prescribing
 - Community Care



Finance Projection

Extra activities are projected to cost:

- Digital Prioritisation Investment Fund (DPIF): £18m revenue
- Covid-19: £14m
- Capital: £16m (DPIF and discretionary)

Workforce Projection

Extra activities are projected to need 90 staff (Q1,Q2)



Maintaining our business as usual is a recurrent cost of ~£95m and is undertaken by 800 staff. This covers over 100 products and services, our underpinning infrastructure and support departments





The following is an elaboration of key areas of focus in the plan.

Engagement with Social Care

Engagement is ongoing around the health and social care data vision. The 'Statement of Strategic Intent – A strategic approach to social care data in Wales' was published in March 2021 signifying the intention to work more closely across health and care to make better use of data to improve outcomes for those receiving care and support services. DHCW have contributed to the discovery phase and the statement and are fully supportive of the work.

The Welsh Community Care Information System and the National Data Resource programmes have worked together to share data between health and social care through a proof of concept dashboard with Powys County Council, providing insight into the Covid pressure on front-line services and feeding into local decision making. (This initiative has won a Local Area Research and Intelligence Association Award for ground breaking work.) The next phase will be to roll out across Wales and look into the demand for rehabilitation services. A memorandum of understanding is being drafted between Social Care Wales and DHCW to look at joint initiatives and funding arrangements and to ensure the Governance is aligned between the relevant Programmes such as WCCIS and NDR.

Balancing Covid-19 Demands with Core Business

The DHCW Board has been asked to note the rapidly changing digital requirements to support health and care as part of the response to the Covid-19 pandemic. The resources required at short notice have been mitigated by establishing a permanent dedicated team, however the rapid and fluctuating nature of the requirements could have potential impact on planned work over the coming months. Governance is in place to assess pandemic priorities – the Digital Pathways Group. The dedicated team may be supplemented with staff from other areas in times of particular pressure.

The impact of any new requirements are fed into the DHCW new service request and planning process which considers and manages the impact on the wider plan. Finance, Workforce and Planning colleagues work as one to address the risks on core delivery. These may include targeted recruitments, funding requests and reprioritisation. The plan is managed to consider other new requirements such as recommendations falling out of strategic reviews.

Potential Recruitment Shortfalls

Our Corporate risks consider the impact of recruitment delays and shortfalls and the need to review priorities if demand exceeds capacity (risks 13697 and 15847). These risks are actively managed by our Planning and Performance Management Group which drives forward mitigations and capacity assessments against key delivery. There are three key areas of risk: building up to a full Special Health Authority workforce formation; developing a sustainable workforce model for Covid – an area of uncertain requirements; and bringing in the right skills for the Digital Priorities Investment Fund Programmes.

Mitigations in train for potential shortfalls include a recruitment task force which is focussed on speeding up the process, and utilising specialist recruitment agencies to target hard to fill posts. Also DHCW are reviewing retention of existing staff and developing the future workforce pipeline. There will also be an expansion in the variety of recruitment channels to increase the reservoir of resources, eg universities, veterans groups.

DHCW will use 3rd party resources to supplement in-house teams, to temporarily increase our capacity or where we don't carry the highly specialised technical skills. Infrastructure examples include supporting Office 365, movement to Cloud, and new data centre networking.

DHCW are also utilising commercial support as part of the risk stratification work directly linked with the Covid-19 response. Commercial suppliers provide technical expertise and help develop the National Data Resource (NDR) environment as part of a robust approach to risk stratification, with phase 1 looking at running and hosting the QCOVID algorithm. The next area of focus is on codifying and automating the Shielded Patient List process, again hosted within the NDR risk stratification platform. Future commercial support will be sought to help establish an NDR solution for acquisition and storage of GP data.