



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

Integrated Medium Term Plan

DIGITAL HEALTH
AND CARE WALES

IMTP

2022-2025

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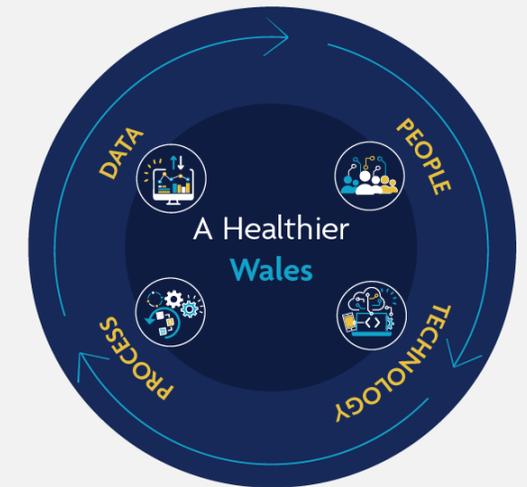
- Focus on product
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Introduction

DIGITAL HEALTH
AND CARE WALES

IMTP
2022-2025

To provide world leading digital services, empowering people to live healthier lives

Welcome to Digital Health and Care's first Integrated Medium Term Plan (IMTP). DHCW is an expert national delivery body within the NHS Wales family, with a pivotal role in helping to deliver transformational health and care.

We provide the digital services thousands depend on every day across our hospitals, communities and primary care - helping staff with their work and ensuring patients receive the best care. And we collect and analyse vast amounts of data, using it to drive improvements and better outcomes.

During our first year as a Special Health Authority we strengthened partnerships with Welsh Government, local health boards, NHS Trusts, primary care, shared services and other organisations to support the NHS Wales response to the COVID-19 pandemic. It is this level of collaboration which we take forward as a key element of this plan.

This plan sets out our goals to support frontline staff with modern systems, deliver new digital solutions, use data to provide insight and help Welsh citizens manage their own health and to protect our valuable digital assets.

What we deliver matters, and this ambitious plan of delivery describes where and how we will focus our efforts over the next three years. It sets out a range of key development areas and deliverables that will help Wales improve patient outcomes. These include digital solutions for nurses, emergency and critical care and electronic medicines management. Building a platform for rapid development of patient digital services will help to deliver new citizen facing services to transform care pathways.

As a forward-thinking organisation, we will continue to work with our stakeholders and partners to ensure our digital solutions make life easier for all, make a real impact, and place health data and quality at the core of all we do.



Simon Jones (Chair)



Helen Thomas (CEO)

Covid-19 Response

We will build on our success in supporting the Test, Trace, Protect and Vaccination Programmes by responding to enhancements and moving to business as usual. Our key objective is to do this in a sustainable way which does not continue to divert resources away from other recovery initiatives.

Test Trace Protect

Business as Usual

We have continued to support over 100 national products and services through the pandemic and this year's plan assumes a continued programme of maintenance and upgrades to keep systems running effectively. Tackling architectural debt and problem backlogs are key whilst maintaining high quality services 24/7.



New Strategies

Creating Value from Data

Joining up systems efficiently through Open Architecture

Modern, responsive data storage in the Cloud

Our strategic enablers - information availability and flow, protecting patient data and sustainable infrastructure - have ambitious strategic approaches defined. Our stakeholder engagement strategy is being developed into a plan and we are focussing on product roadmaps to provide longer term visions for individual systems.

User centred Product deliverables

Inclusive and attentive Engagement

Digital Programmes

- Digital Services for Patients and the Public**
- Cancer**
- Critical Care**
- Emergency Care**
- Nursing**
- Community Care**
- Digital Medicines**
- National Data Resource**
- Welsh Patient Administration**
- Microsoft 365**

We will work on solutions funded through a Welsh Government digital priority investment fund to provide better services for patients and the public and deliver our new cancer informatics solution. We will roll out new systems for emergency departments and critical care and implement the strategic review of our community care solution, used by community health staff and social care.

We will continue to make clinical data available across boundaries in our clinical repositories via the Welsh Clinical Portal and nursing systems. We will also work with partners on the National Data Resource and take forward the recommendations of the Welsh Government medicines management review.

Strategic Outcomes

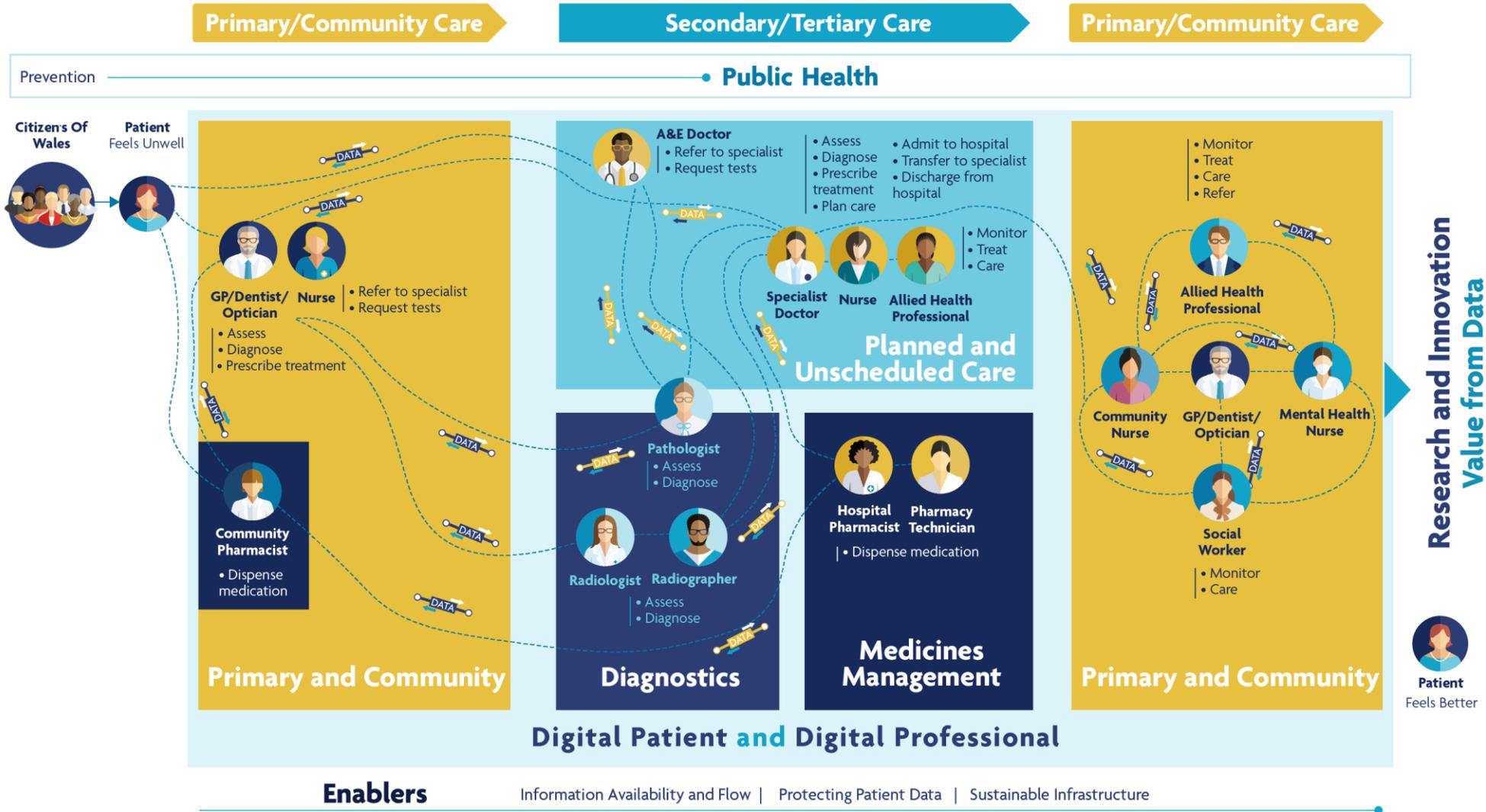
- Enabling digital transformation
- Expanding the digital health and care record
- Delivering high quality technology, data products and services
- Driving value and innovation
- Becoming the trusted strategic partner and a high performing, inclusive, ambitious organisation

Sustainable Development

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.

- A Healthier Wales
- Covid-19 public health response
- NHS Recovery
- Mental Health
- Supporting the Workforce
- Working alongside social care
- Population Health
- Managing within Resources

Supporting NHS priorities





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How we have developed our Plan

DIGITAL HEALTH
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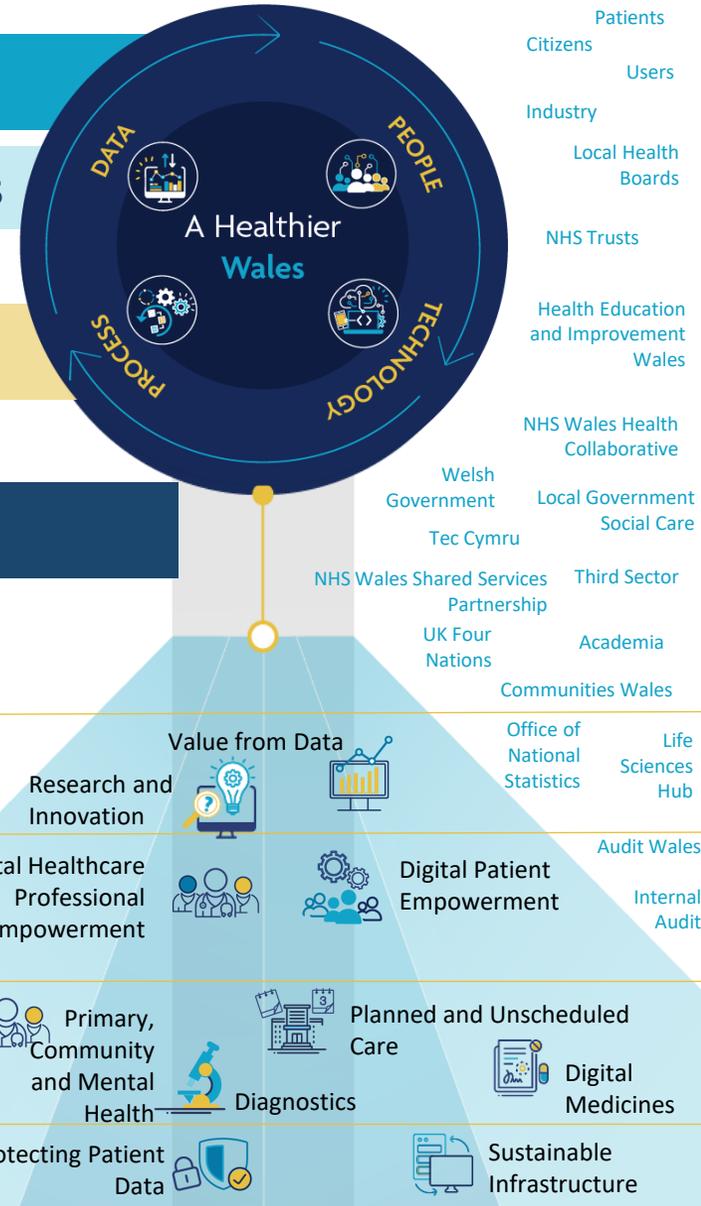
OUR VISION....

To provide world leading digital services, empowering people to live healthier lives

OUR PURPOSE.... To transform health and care for everyone in Wales

OUR MISSIONS....

- 
Becoming the trusted strategic partner and a high performing, inclusive, ambitious organisation.... SUPPORTING OUR WORKFORCE AND STAKEHOLDERS
- 
Driving value and innovation.... 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 technology, data products and services.... TO SUPPORT EFFICIENCIES AND IMPROVEMENTS IN CARE PROCESSES
- 
Enabling Digital Transformation.... SUPPORTING JOINED UP CONSISTENT CARE



OUR PURPOSE.... To transform health and care for everyone in Wales

Infrastructure

Providing the infrastructure for national systems and services, including national data centres, cyber security, service management, information governance, client services, safety and assurance, data services provision

Building Blocks

Providing the platform and building blocks that enable national and local systems to connect to the national patient architecture

Data and analytics

Providing data and analytics services for national use including Welsh Government and Value in Health

National Support Services

- Providing commercial, procurement and programme and project management services
- Providing a wide range of digital support services for primary care services

System Development

Developing systems to support and improve patient care

ICT Support

Provide ICT services to support HEIW and NWSSP



- Lead the **professional development** of the digital workforce for NHS Wales
- Lead the **development of strategic roadmaps** for NHS Wales' national digital services
- Lead the **development of national business cases** including **benefits frameworks** for new national digital initiatives
- Influence and advise Welsh Government and partner organisations on the **strategic direction for digital health and care services**
- Support partner and local organisations in the **implementation of national systems**
- Support Welsh Government in the development of **digital health policy including the Data Promise**
- Support the development and implementation of **digital services to support regional health plans**
- Be a **trusted strategic partner** engaging widely with partners



Strategic Objective

ENABLING 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



Strategic Objective

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

- 4 Portfolio**

Digital Healthcare Professional Empowerment:
Improving and expanding the content, availability and functionality of the Digital Health and Care Record, agnostic of health board and geographical boundaries and supporting evidence based decision making and connectivity using NHS Wales e-library and the Microsoft 365 suite
- 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



Strategic Objective

DELIVERING HIGH QUALITY technology, data products and 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, Community and Mental Health:
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**

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



Strategic Objective

DRIVING VALUE AND INNOVATION for better outcomes and value based care

- 11 Portfolio**

Research and Innovation:
Delivering research insights and innovation for service improvement
- 12 Portfolio**

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

← NEW 2022

Continue to embed organisation governance and leadership roles: Key leadership roles include cyber security and data governance

1

- Build on the governance process implemented during year one of the Special Health Authority establishment to incorporate feedback from the baseline governance review and internal audit reports, as well as ensuring a fully established board.
- Establishment of financial structures and functions to deliver and manage the financial allocations and requirements for statutory obligations. The role extends to supporting the investment pathway with digital business cases and a benefits framework.
- Continue to progress the national functional responsibilities in cyber following the formation of the Independent Cyber Resilience Unit during year one, with the national data governance responsibilities which DHCW lead on.
- Exploit the benefits of operating as a Special Health Authority capitalising on the insights from the Board and wider team as we move into year two continuing to raise the profile and potential of digital at a strategic level.



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* and consider our responsibilities in relation to socio economic development in Wales

2

- To translate a *Healthier Wales* and population health digital response into national digital roadmaps that will help to identify and influence digital investment priorities underpinned by specific product and service roadmaps.
- To continue the year one work on the architecture and infrastructure future requirements through the development of several strategies and related business cases, eg open architecture, cloud and data.
- Ensure that socio-economic considerations are at the heart of our procurement and resourcing decisions, including key priorities such as the development of a decarbonisation strategy and plan.

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

3

- The demands for digital continue to grow. To keep pace DHCW will need to implement 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.
- We will optimise our organisational structures to deliver in a more agile and responsive manner.
- Embracing the new ways of working established during the pandemic to enable a more flexible workforce.
- 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.

Strengthening Stakeholder Relationships : working collaboratively with all stakeholders to develop our digital roadmaps

4

- Build on the strategic objectives and vision for the new Special Health Authority to develop the organisations long-term strategy, mission and vision considering the new expanded remit of the organisation as a Special Health Authority.
- Implement the approved stakeholder engagement strategy, focusing on our understanding and influence with key delivery partners, with regular engagement sessions, enhanced communications and strategically aligned plans.
- Working with our key stakeholders to drive digital adoption and transformation through the development of the Digital Delivery Change Network and digital maturity plans.

Welsh Language: Continue to develop our Welsh identity as a new statutory organisation through Board level commitment, dedicated resources and wider provision of Welsh services both internally and across the NHS Wales family

5

- Build on our current provision of Welsh language training and build activities to promote the use of Welsh in work.
- Work collaboratively with NHS Wales partners to consider the Welsh language in service development and deployment.
- Increased focus internally on assuring Welsh language considerations as part of the design and development process.
- Develop upon the existing processes for learning from any reviews or feedback.
- Assess and respond to the specific Welsh language requirements relating to digital systems which will be recommended by the Welsh Government More than Words - Task and Finish Group.
- Production of a bilingual NHS App.

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

6

- Quality and Regulatory Compliance will continue to lead and support the implementation and maintenance of a quality management system and the audit programme that underpins the ISO standard requirements.
- Increased Regulatory focus, in particular around new legislation and implementation of a software lifecycle to support the Medical Devices Regulations.
- Quality and Regulatory Compliance are integrated to meet the organisational requirements in line with the product development process.
- Produce and implement a document management strategy.
- A robust approach to organisational learning will ensure lessons learnt to deliver continuous service improvement. With a systematised and accessible approach to Integrated organisational performance.

Becoming the trusted strategic partner and a high performing, inclusive, ambitious organisation



GYRRWR STRATEGOL

Mae strategaeth Cymraeg 2050 Llywodraeth Cymru yn disgrifio uchelgais i gyrraedd targed o 1 miliwn o siaradwyr Cymraeg erbyn y flwyddyn 2050. Cymdeithas sy'n hybu ac yn gwarchod diwylliant, treftadaeth a'r Gymraeg, ac sy'n annog pobl i gyfranogi yn y celfyddydau, a chwaraeon a hamdden.

Fel sefydliad mae gennym gyfrifoldeb i greu'r amgylchedd iawn i ddysgwyr newydd ddysgu a defnyddio'r iaith, ac i siaradwyr rhugl sgwrsio a chynnal o leiaf ran o'u bywyd gwaith bob dydd yn Gymraeg, gan hefyd allu trafod gyda chydweithwyr a phartneriaid y tu allan i'r sefydliad sy'n dymuno sgwrsio yn Gymraeg. Yn ogystal, bydd y rhai nad ydynt yn siarad yr iaith yn teimlo bod ganddynt berchnogaeth ar yr iaith a bydd ganddynt ewyllys da tuag ati. Rydym wedi penodi Rheolwr Gwasanaethau Cymraeg i arwain yn y maes hwn.

Byddwn yn mabwysiadu'r egwyddor a sefydlwyd yn Neddf yr Iaith Gymraeg 1993, sef, wrth gynnal busnes cyhoeddus yng Nghymru, y dylid trin y Gymraeg a'r Saesneg ar y sail eu bod yn gyfartal. Rydym wedi datblygu Cynllun Iaith Gymraeg ac wedi ymrwymo i ddarparu lefel o wasanaethau Cymraeg sy'n cyfateb i Safonau'r Gymraeg sy'n cael eu mabwysiadu gan sefydliadau cyhoeddus tebyg yng Nghymru.

CAMAU NESAF

- Adeiladu ar ein darpariaeth bresennol o hyfforddiant iaith Gymraeg ac adeiladu gweithgareddau i hybu'r defnydd o'r Gymraeg yn y gweithlu.
- Cydweithio â phartneriaid GIG Cymru i ystyried y Gymraeg wrth ddatblygu a defnyddio gwasanaethau
- Mwy o ffocws yn fewnol ar sicrhau ystyriaethau iaith Gymraeg fel rhan o'r broses dylunio a datblygu
- Datblygu'r prosesau presennol ar gyfer dysgu o unrhyw adolygiadau neu adborth
- Asesu ac ymateb i ofynion penodol y Gymraeg mewn perthynas â systemau digidol a fydd yn cael eu hargymell gan Grŵp Gorchwyl a Gorffen Mwy na Geiriau Llywodraeth Cymru
- Cynhyrchu Ap GIG dwyieithog

STATWS

Mae'r gweithgareddau sy'n cael eu cynnal ledled y sefydliad i hyrwyddo'r defnydd o'r Gymraeg yn weithredol yn cynnwys:

- Bydd ein Rheolwr Gwasanaethau Cymraeg newydd yn goruchwylio gweithrediad Strategaeth Sgiliau Dwyieithog ar draws Iechyd a Gofal Digidol Cymru.
- Byddwn yn parhau i fireinio galluoedd iaith Gymraeg ein systemau cenedlaethol i gefnogi gofynion sefydliadau GIG Cymru.
- Datblygu ymhellach ein tîm amlddisgyblaethol, gan gynnwys siaradwyr Cymraeg a chynrychiolwyr yr holl weithgareddau a gyflawnir, er mwyn sicrhau cydymffurfiaeth. Arweinir y tîm gan Gyfarwyddwr Gwasanaeth Gwybodeg, ac mae'n cynnwys Rheolwr Gwasanaeth Cymraeg (mae'r Gymraeg yn iaith gyntaf i'r ddau ohonynt), i sicrhau bod gofynion y Gymraeg yn cael eu hystyried ym mhob datblygiad presennol a newydd.
- Byddwn yn parhau i weithio gyda Phartneriaeth Cydwasanaethau GIG Cymru ar gyfer gwasanaethau cyfieithu.
- Rydym wedi nodi pa rolau y mae angen i'r iaith Gymraeg fod yn ofyniad hanfodol ac rydym wrthi'n recriwtio siaradwyr Cymraeg.
- Rydym yn ymgysylltu'n barhaus â Chomisiynydd y Gymraeg a Llywodraeth Cymru.
- Byddwn yn cynnal gwersi Cymraeg ar gyfer pob gallu (rydym hefyd yn archwilio cyfleoedd ar gyfer tiwtora dwys i'r rhai sydd â sgiliau canolradd er mwyn eu galluogi i symud ymlaen yn gyflym i lefel lle byddant yn hyderus i ddefnyddio'r Gymraeg yn ystod y diwrnod gwaith).

Y Gymraeg: Parhau i ddatblygu ein hunaniaeth Gymreig fel sefydliad statudol newydd trwy ymrwymiad ar lefel y Bwrdd, adnoddau pwrpasol a darpariaeth ehangach o wasanaethau Cymraeg yn fewnol ac ar draws teulu GIG Cymru



STRATEGIC DRIVER

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 goodwill and a feeling of ownership regarding the language amongst those who do not speak it. We have appointed a Welsh Language Services Manager to lead in this area.

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

NEXT STEPS

- Build on our current provision of Welsh language training and build activities to promote the use of Welsh in work
- Work collaboratively with NHS Wales partners to consider the Welsh language in service development and deployment
- Increased focus internally on assuring Welsh language considerations as part of the design and development process
- Develop on the existing processes for learning from any reviews or feedback
- Assess and respond to the specific Welsh language requirements relating to digital systems which will be recommended by the Welsh Government *More than Words* - Task and Finish Group
- Production of a bilingual NHS App.

[Back to Summary](#)

STATUS

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

- Our new Welsh Language Services Manager will oversee the implementation of a Bilingual Skills Strategy across DHCW.
- We will continue to refine the Welsh language capabilities of our national systems to support the requirements of NHS Wales organisations.
- Further development of 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 Welsh Language Services manager (both of whom speak Welsh as a first language), to ensure Welsh language requirements are considered in all existing and new developments.
- We will continue to refine the Welsh language capabilities of our national systems to support the requirements of NHS Wales Organisations.
- We will continue to work 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.
- We have 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).

Welsh Language: Continue to develop our Welsh identity as a new statutory organisation through Board level commitment, dedicated resources and wider provision of Welsh services both internally and across the NHS Wales family



| Portfolios | Qtr 1 Apr-Jun 2022 | Qtr 2 Jul-Sep 2022 | Qtr 3 Oct-Dec 2022 | Qtr 4 Jan-Mar 2023 | 2023/2024 | 2024/2025 |
|---|--|--|---|--|--|-----------|
| Information Availability and Flow | Open architecture: Develop implementation plans for embedding Architectural Building Blocks into NHS Wales digital architecture and continue to deploy APIs during the year | | | | Continue to enhance and implement services, open integration service, APIs and repositories as Architectural Building Blocks | |
| | | Data Strategy: Develop Data Strategy implementation Plan as part of the National Data Resource. | Data Platform: procurement of national data platform | Deliver the Data Strategy and national dataset developments | Deliver the Data Strategy and migrate new and existing data services onto the national data platform | |
| Protecting Patient Data | Information Governance: Develop and promote a Welsh Government National Information Governance Framework | | System access: National Audit Tool Roadmap | | | |
| | Cyber: Ongoing audit and assurance from Cyber Resilience Unit. Continue to implement DHCW Cyber Service Improvement plan | | | | Ongoing audit and assurance from Cyber Resilience Unit in line with regulatory changes | |
| Sustainable Infrastructure | Infrastructure Strategy: further develop sub strategies | | | | | |
| | Cloud: Migrate initial services to cloud hosting plus Cloud First procurements | | | | Further Cloud migrations and Cloud First procurements | |
| | | Data Centres: review second data centre provision | | | Implement requirements of potential data centre | |
| Digital Health Professional Empowerment | Nursing solution: more features and further roll out | | | | Cancer and Nursing - more features and further roll out | |
| | Cancer solution: Initial implementation | | | | | |
| | Digital Health Record: Populating the Digital Health Record and extending electronic test requesting to more disciplines | | Establish M365 Centre of Excellence | Populating the Digital Health Record and extending test requesting | | |
| Digital Patient Empowerment | Digital Services for Patients and the Public - Initial priorities and work packages | | | | DSPP Further modules | |
| Public Health | Test Trace Protect: Respond to highest priority confirmed requirements for Test Trace and Protect | | | | Respond to confirmed priority requirements for Test Trace Protect | |
| Primary, Community and Mental Health | GP Systems: Manage the transition to new GP systems agreement ensuring support for cluster development plans | | | | | |
| | Welsh Community Care Information System: Strategic Review and Roadmap | | Mental Health: Functionality and Information sharing | Healthy Child Wales Programme functionality enhancements in the Child Health system | Continue sharing community information including mental health with other settings | |
| Planned and Unscheduled Care | Covid-19 Recovery: Respond to Covid-19 recovery initiatives | | | | Respond to Covid-19 recovery initiatives | |
| | Unscheduled Care digital developments including the Emergency department system and supporting the Welsh Ambulance Service | | | | Emergency dept system available for roll out | |
| | Welsh Patient Administration System - Betsi Cadwaladr West | | Eye Care: integration with national systems | Intensive Care System available for roll out | Intensive Care System available for roll out | |
| | Welsh Patient Administration System - Velindre | | | | WPAS Readiness Complete ABMU / Cwm Taf to Cwm Taf instance | |
| Diagnostics | Welsh Radiology Information System Roadmap of decommissioning | | | | | |
| | Work with New Radiology and Laboratory Information Programmes: support the RISP procurements and LINC delivery | | | | New radiology solution - confirm supplier | |
| | Endoscopy: Review National Programme requirements as they emerge | | | | | |
| Digital Medicines | Readiness for early e-prescribing and medicines management sites along with enabling patient medicines management | | | | Digital Medicines Programme deliverables | |
| | E-Prescribing and Medicines Administration: award contract framework for health boards to buy system for hospitals | | Shared Medicines Record: design | | Electronic transfer of prescriptions: GP to Community Pharmacists proof of concept | |
| Research and Innovation | | Research and Innovation: Complete development of DHCW R&I Strategy | Delivery of Research and Innovation Strategy | | | |
| Value from Data | Analytics: Responding to analytical requirements from Covid-19, Primary Care and Value in Health | | | | Analytics: Responding to analytical requirements from Covid-19, Primary Care and Value in Health | |

WELSH GOVERNMENT PRIORITIES

How Digital Health and Care Wales will Support these



A HEALTHIER WALES

Digital Healthcare Professional Empowerment (Portfolio 4)

Improving and expanding the content, availability and functionality of the Digital Health and Care Record, agnostic of health board and geographical boundaries and supporting evidence based decision making and connectivity using NHS Wales e-library and the Microsoft 365 suite *(This supports national data sharing and therefore regional working.)*

Primary, Community and Mental Health (Portfolio 7):

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 *(This includes cluster requirements and a national system / data sharing for community health and social care)*

Planned and Unscheduled Care (Portfolio 8) :

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: (Portfolio 9)

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

Digital Medicines: (Portfolio 10)

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

Public Health (Portfolio 6)

Develop, operate and maintain a set of high quality national digital services to support Public Health prevention and early intervention Programmes *(including a move to business as usual for our vaccination system)*

Research and Innovation: (Portfolio 11)

Delivering research insights and innovation for service improvement

Value from Data (Portfolio 12)

Driving value from data for better patient outcomes and service planning *(Supporting Ministerial Priority Measures Phase 1 No. 29 Digital and Technology – evidencing Value Based Health in our stakeholder organisations)*

Digital Patient Empowerment: (Portfolio 5)

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

NB: Ministerial Measures Phase 1 do not directly impact on DHCW as we do not deliver patient care. However our data recording and analysis solutions support organisations in evidencing their compliance. See *Value from Data* for Ministerial Priorities re Value Based Health.

SUPPORTING THE HEALTH AND CARE WORKFORCE

WORKING ALONGSIDE SOCIAL CARE



NHS FINANCE AND MANAGING WITHIN RESOURCES

Organisational Portfolio

Establishment of financial structures and functions to deliver and manage the financial allocations and requirements for statutory obligations. The role extends to supporting the investment pathway with digital business cases and benefits framework.

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

Ensure that socio-economic considerations are at the heart of our procurement and resourcing decisions, including key priorities such as the development of a Decarbonisation Strategy and plan.



POPULATION HEALTH

MENTAL HEALTH AND EMOTIONAL WELLBEING

NHS RECOVERY



COVID RESPONSE

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 Medicines
 - Community Care
- Welsh Patient Administration System
 - Office 365
 - Nursing



Finance Projection

Extra activities over the planning term are projected to cost:

Revenue:

- Digital Prioritisation Investment Fund (DPIF): £81.5m
 - Covid-19: £10.3m
- Capital Investment :
- Digital Prioritisation Investment Fund (DPIF): £13.7m
 - Covid-19: £0.5m

Workforce Projection

Extra activities are projected to need 228 staff



Maintaining our business as usual is a recurrent cost of £110.5m (in 2022/23) with an annual capital allocation of £2.3m and is undertaken by 828 staff. This covers over 100 products and services, our underpinning infrastructure and support departments





ASSUMPTIONS

The Digital Health and Care Wales Integrated Medium Term Plan 2022-2025 has been developed against the still remaining uncertainty and recovery needs arising from the Covid-19 pandemic as well as fulfilling the Special Health Authority ambitions to be the trusted digital delivery partner for NHS Wales.

Digital plays a key part in this challenge and DHCW has often needed to respond urgently to new requirements with solutions 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

- Year 2 and Year 3 are indicative
- Delivery intentions are based on known funding availability and associated resource
- New initiatives will require additional funding or cancellation of other initiatives in the plan
- New initiatives have a lower degree of planning confidence in the initiation stage as detailed requirements are not finalised at that point.
- Our risk appetite will impact on areas of focus and our opportunities to be agile – eg projects have a greater appetite for risk compared to data protection and patient safety.
- Sickness, leave carry over and recruitment challenges have been factored in
- Teams working on Covid-19 will still be required to support the Test Trace and Protect Programme.
- This plan has considered priorities from Welsh Government, Health Education and Improvement Wales (HEIW), the NHS Wales Health Collaborative, NHS Wales Shared Services Partnership, National Programmes and Health Boards/Trusts - gathered from meetings and peer groups during 2021 and 2022. Organisational plans follow the same planning timeline as DHCW so confirmed detailed requirements may not have been available at time of drafting.

BALANCING COVID-19 DEMANDS WITH CORE BUSINESS

Although 2022 has started to see Covid-19 under control, at the time of drafting, new digital requirements are still coming in, and there will continue to be a need for establishing a sustainable business as usual function for the Test Trace and Protect digital offerings to meet the booster programmes and supporting the Covid-19 pass for overseas travel. Recovery of services continues to be a monumental undertaking which we are keen to support with digital offerings.

Any resources required at short notice for Covid-19 work have been mitigated by establishing a permanent dedicated team, however the fluctuating nature of the requirements have in the past had an impact on planned work and there are challenges in getting staff in post quickly. We will monitor this on a continual basis.

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

Last year our main recruitment objectives were: building up to a full Special Health Authority workforce formation, developing a sustainable workforce model for Covid and bringing in the right skills for the Digital Priorities Investment Fund Programmes. The reality is a job market where skilled staff are in high demand from all sectors, and our recruitment rates were under pressure.

Our assumptions this year are that recruitment initiatives, retraining and nurturing talent early will see some improvement in recruitment rates but this will take the full IMTP to start making a difference



DHCW &
stakeholders



Risks

Our corporate risks which impact on delivery of the plan relate in particular to recruitment challenges, unplanned new requirements, balancing legacy upgrades with new work, funding availability and risks featuring in individual programme and project risks logs which could delay their deliverables.

- **New digital requirements (Risk 0237)**– 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 have been documented in the *Health and Social Care Winter Plan 2021/2022* which describes areas of potential new requirements and ways of working, eg moving services into primary care, targeted action in cancer, eye-care and dermatology, urgent primary care, regional treatment centres and options to reduce waiting lists.
- **Recruitment (0259)** - 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.
- **Planning the move from Legacy (0218,0228)**. The significant estate of legacy/unsupported infrastructure and operating systems across the organisation is covered in the plan. The work required is from all areas of the organisation, but 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 and new systems could sit on sub-optimal infrastructure which could delay roll out and have a reputational impact due to instability.
- **Delay in Infrastructure Investment (0201)** - 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.

Numbers = Corporate risk log reference

Programme Specific Risks

- **Canisc Replacement (0204)**– this is a complex programme of work, dependent on the availability of stakeholders and delivery of an initial phase of requirements. Any delay to dependencies will impact on the delivery date of the solution.
- **Information Governance Framework (0264)** – 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' Mar 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.)
- **Contractual delays (Programme Logs)** - major implementations may be impacted by supplier delays and delays in concluding contractual discussions with organisations.
- **Dependencies** – increasing dependencies on new architectural components such as the medicines repositories will start to feature in risk logs
- **Late DHCW representation** – involvement from DHCW is needed early on to support new initiatives and to feature in relevant Governance groups. Early initiation delays have a increasingly big impact later on in programme delivery.
- **Non aligned service change** – benefits will not be realised unless system roll out is aligned to service change and stakeholder availability
- **Medical Devices**. Service developments or implementations may be impacted if assessed against the new UK Medical Device Regulations (MDR) to be software as a Medical Device (SaMD) or Artificial Intelligence as a Medical Device (AIaMD). The DHCW Quality Assurance and Regulatory Compliance team will assess the services and provide guidance on the requirements for conformity ahead of the Jul 2023 effective date.

Mitigations

Our Corporate and Programme Logs provide details of mitigation. Our key planning risks are actively managed by our Planning and Performance Management Group which drives forward mitigations and capacity assessments against key delivery.

Mitigations in train for potential staff 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, recruitment fairs.

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 Microsoft 365, movement to Cloud. We are also using external support to develop our Data strategy.





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Digidol Cymru
Digital Health
and Care Wales



Our Delivery Statements

DIGITAL HEALTH
AND CARE WALES

IMTP

2022-2025



Key: New in plan

Information Availability and Flow Enabler 1

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.

- Continue to 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 means by which further structured clinical data is stored in repositories for Wales, utilising a standards-based approach to how data is stored and shared with citizens, clinicians, and software suppliers, building on cancer treatment, shared medications and allergies as the first implementations (1.02)
- Through collaboration with the National Data Resource programme, build the enablers of an open, interoperable architecture from which NHS Wales can derive value, insight and intelligence from healthcare data (1.03)
- Develop the data strategy and implement a national data platform to deliver the foundations and approaches to support data driven insights and Artificial Intelligence (1.04)
- Support the provision of a data platform for Public Health Wales through the National Data Resource programme (1.05)
- Migrate Welsh Clinical Portal to open standards and a single instance (1.06)



I can see my patient, knowing their digital care record / data is stored in all Wales repositories.
Which means: it doesn't matter where they were seen last I can see all their clinical data to inform their care
Care Provider

Protecting Patient Data Enabler 2

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.

- Develop and promote a national IG framework for Wales to enable safe and secure sharing of patient information (2.02)
- Continue to embed and drive the national cyber security agenda (2.04)
- The independent Cyber Resilience Unit, as a delegated authority from Welsh Ministers will audit and support operators of essential services across NHS Wales and report our national adherence to the Security of Network and Information Systems (NIS) Regulations to the Welsh Government (2.05)



As a patient/citizen I can be confident my personal health information is in safe hands
Which means: I am happier to use technology for self care which broadens my options and access to services.
Citizen



I can be confident that systems are protected against cyber attacks and available when I need them.
Which Means: I can help my patients and colleagues at any time of day from wherever I am based.
Wider NHS

Sustainable Infrastructure Enabler 3

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

- Move more services to the Cloud, ensuring a 'Cloud-first' approach to the design and development of future services (3.01)
- Manage the lifecycle roadmap of systems including the migration of workloads from ageing infrastructure and decommissioning systems (3.03)
- Develop the Infrastructure Strategy to meet the growing needs of the service and reflect technological advances. (3.04)
- Securing a replacement to our 2nd data centre and move services as required (3.06)

Note: Reference numbers started in 2020/2021 so are not necessarily sequential as objectives get removed once delivered or rescoped.



Digital Healthcare Professional Empowerment

Portfolio

4

Improving and expanding the content, availability and functionality of the Digital Health and Care Record, agnostic of health board and geographical boundaries and supporting evidence based decision making and connectivity using NHS Wales e-library and the Microsoft 365 suite

- Support 'Transforming Cancer Services' by development of the Cancer Informatics Solution using the NHS Wales national architecture (4.01)
- Meet the needs of clinical networks and cross organisation/border patient journeys by enabling recording and linkage of data within the national architecture together with access to clinical repositories (4.02)
- Expand electronic requesting functionality, results notifications, and acknowledgements to other diagnostics disciplines (4.03)
- Embed patient analytics into our clinical systems (4.04)
- Further enable 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 the re-procurement of Microsoft 365 supported by the establishment of a Centre of Excellence (4.06)
- Support delivery of new Systemic Anti Cancer Treatment All Wales solution (4.07)

Recording assessments about my patient in a nationally accessible nursing system removes the need for so much paper and all the problems with locating it and filing it

Which means: I will not need to repeat the same questions to the patient and will be able to spend more time back at the bedside caring for them

Nurse



I will be able to see more clinical information in relation to cancer diagnosis along with other conditions.

Which means: I have a better overall picture for clinical decision making

Oncologist



I have more electronic data from other health boards and clinical colleagues

Which means: I can make more informed decisions and spend less time on the phone waiting for hospital information

GP



I have more electronic data from other health boards and clinical colleagues

Which means: I can make more informed decisions and spend less time on the phone waiting for GP information

Specialist Doctor



I will have access to my own health information

Which Means: I feel more empowered to support my own health and wellbeing and find out more about how I can keep healthy

Patient



Digital Patient Empowerment

Portfolio

5

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

- Drive delivery of patient facing health and social care applications via the Digital Services for Patients and the Public Programme (DSPP) working with key stakeholders, including the Centre for Digital Public Services (5.01)
- Operate and grow 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)
- Launch the NHS Wales multilingual patient app ensuring inclusivity and diversity, and build out with further functionality including the future of My Health Online and patient medication services (5.06)
- Enable third party patient facing initiatives across the health and care service to connect with the NHS Wales patient application and core services (5.07)

I will be able to get advice from my doctor online

Which Means: I don't have to travel a long way at an inconvenient time to visit them

Patient





Public Health

Portfolio

6

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

- Maintaining and maximising the functionality of our Welsh Immunisation System (6.02)
- Ensure pandemic response systems are sustainable, supported and funded, and not to the detriment of our other solutions (6.03)
- Continue to deliver flows of Covid-19 testing and vaccination data to new users, across borders and integration with new systems as required (6.04)
- Build on the Covid-19 business intelligence successes to extend our value from data offerings (6.05)
- Support priorities from Public Health Wales with respect to national Screening Programmes (6.06)
- Further develop the Welsh Pandemic Record including the Welsh Pandemic Vaccination dashboard (6.07)
- Deliver requirements and enhancements of patient booking applications through the Digital Service for Patients and the Public Programme (6.08)



I have live access to data about Covid-19 from our Welsh Immunisation System

Which Means: I can see how our public health actions are impacting on transmission

Public Health

Primary, Community and Mental Health

Portfolio

7

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

- Implementing GP systems migrations from current 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 roll out the Community system including the mobile version as per Strategic Review (7.02)
- Set out the primary and community digital strategy and further integrate these systems across all health settings, including pharmacy, eye care and secondary/tertiary care teams (7.03)
- Procure and migrate onto a replacement for the current Dental Referral Management System (7.04)
- Work to continue on agreeing data sets for community care including mental health, looked after children and rehabilitation, together with business intelligence dashboards linking health with social care data (7.05)
- Support the Accelerated Cluster Development Programme by modernising information availability for those working in geographical localities, where health and care partners collaborate to understand local needs (7.06)
- Deliver healthier children digital priorities by enabling the sharing of data with primary and community care and supporting point of care health collection tools in schools by health professionals (7.07)



I can start to see data about our community health and social care services across Wales much of which is currently on paper or only available locally.

Which Means: I can identify trends and intelligence from data, which allows me to improve the service and share concerns about vulnerable citizens.

Manager



I can start to see data from social care and secondary care.

Which Means: I will know all about the patient before I arrive at their home or via virtual consultations

Community Nurse



Planned and Unscheduled Care: Portfolio 8

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

- Deliver digital and data requirements for outpatient modernisation(8.01)
- Ensure referral pathway efficiencies from hospital to hospital with our patient referral solution (8.02)
- Roll out a system to digitalise intensive care across Wales (8.03)
- Roll out the Welsh Emergency Department System across Wales (8.04)
- Replace the patient administration functionality of the current cancer solution in Velindre with the Welsh Patient Administration System (8.05)
- Implement the Welsh Patient Administration system 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)
- Deliver integration requirements from initiatives such as 111, Eye care, WAST electronic patient care record (8.09)
- Complete the discovery work for an All Wales maternity system and develop a collaborative plan to deliver digital maternity services (8.10)
- Link Scan for Safety data and feed into UK Medical Devices Information System (8.11)



Access to data will make my Emergency dept efficient by supporting the patient flow through the health care system
Which Means I can appropriately direct care services.
A and E doctor



I can access data relating to patient care
Which Means I am supported in triaging and directing my patient/citizen to the appropriate service
111 Call Handler



I will share images with colleagues across Wales which will support alternative ways of working for clinicians
Which Means less travel, helping with staff shortages and patients needing less radiation
Diagnostics Specialists



I'm looking forward to less paper charts and a better idea of bed capacity and variation across Wales
Which Means I can share my knowledge and findings with colleagues to help improve efficiency of services.
Intensive Care Specialist

Diagnostics: Portfolio 9

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

- Work with the new national Laboratory Information Management System (LINC) Programme on integration, infrastructure and other requirements (9.01)
- Support the integration of the new Radiology Informatics Solution (RISP), including new Picture Archiving (PACS) and Radiology Dosage Management Solutions (9.02)
- Expand electronic requesting functionality, results notifications, and acknowledgements to other diagnostics disciplines (See Digital Healthcare Prof Empowerment)
- 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, screening, endoscopy, audiology, cardiology, respiratory, spirometry, medical genetics, English border hospital results (9.05)
- Maintain, dual run and plan to decommission the existing laboratory management system including access to legacy data (9.06)
- Maintain, dual run and plan to decommission the existing radiology management system including access to legacy data (9.07)
- Support the National Endoscopy recovery programme (9.09)



I can see where and when patients have had blood tests
Which means I may not have to take more blood from the patient and can start treating sooner
Clinician



I can compare dispensing activity across my sites and Wales and know where I can access medication that I do not have available in my site. **Which Means:** More efficiency and improving outcomes for patients
Hospital Pharmacist

Digital Medicines: Portfolio 10

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

- Respond to the Welsh Government commissioned E-Prescribing Review by implementing a major transformation programme (10.02)
- Provision of a shared medicines record that utilises a centralised medicines reference service, allowing access to medicines information regardless of where this originated - enhancing patient safety and streamlining the delivery of care. (10.03)
- Implement electronic transfer of prescriptions by establishing the digital communication of prescription information between prescribing and dispensing systems within primary care to enable efficient processes. (10.05)
- Implement e-prescribing across Secondary Care in Wales through the delivery of electronic prescribing and medicines administration (ePMA) solutions, adhering to national open standards to ensure interoperability. (10.06)
- Introduction of patient access to medicine information from primary, secondary and community pharmacy systems via the development of a patient app to help promote patient empowerment and self care. (10.07)



With dashboards, data becomes intelligence which I can apply to my decisions and actions.

Which Means: I can see whether my policy is working on the ground and modify to the needs of the nation
Policy Lead



I can see whether we are prioritising referrals quickly enough

Which Means: I can make sure we clear any bottlenecks and patients get seen when needed
Clinical Dept Managers

Research and Innovation

Portfolio 11

Delivering research insights and innovation for service improvement

- An increased focus on Research and Innovation, building the internal team and developing a Research and Innovation strategy aligned to DHCW's strategic objectives and the needs and demands of the health and care system in Wales (11.01)
- In response to the Data strategy, develop the framework and structures to ensure data science practice and Artificial Intelligence approaches are supported (11.02)

Value from data

Portfolio 12

Driving value from data for better patient outcomes and service planning

- Continue to deliver the requirements of the COVID-19 response including new developments around data, analysis and reporting (12.01)
- Deliver the analysis and modelling of data in relation to NHS recovery of essential sustainable services provision (12.02)
- Utilise our systems to support the Value in Health Programme, including developing standards for PROMS and PREMS. (12.03)
- Bring together information streams and dashboards into one Health Intelligence Portal including, primary care, Covid - 19, value in health, cancer and unscheduled care data. (12.05)
- As an official Stats publishing body, improve the availability of data in the public domain (12.06)
- Support the National Clinical Framework in visualising opportunities to redesign and improve patient pathways (12.07)
- Support the implementation of Health and Social Care Quality and Engagement Act as it becomes embedded (12.08)
- Open up data, within appropriate IG controls, to improve access and overall value of the use of healthcare data (12.09)
- Ensure continued access for primary care and the wider system (where agreed) to GP data, for primary care and system recovery. (12.10)



I can start to see where patients are on their journey through the health system, identifying trends and sub optimal activities

Which Means: we can focus on problem areas and optimise or redesign the patient pathway
Clinical Planners



We use data for analysing what works well for patients

Which Means: we can spot useful trends and help NHS managers make informed decisions
Data Analyst Research and Education





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Our National Portfolios and Enablers

DIGITAL HEALTH
AND CARE WALES

IMTP

2022-2025

INFORMATION AVAILABILITY AND FLOW VISION



Enabling Digital Transformation



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



IMTP

2022-2025

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 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.

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



Policy Maker



Clinician



Manager



Citizen



Researcher



Data Analyst



Planner

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 39 million clinical documents and over 220 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. We integrate with hundreds of systems.

DHCW will be the system owner for an open platform based on standards for collection and use of data. We are 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.

OUR DELIVERY STATEMENTS:

- Continue to 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 means by which further structured clinical data is stored in repositories for Wales, utilising a standards-based approach to how data is stored and shared with citizens, clinicians, and software suppliers, building on cancer treatment, shared medications and allergies as the first implementations (1.02)
- Through collaboration with the National Data Resource programme, build the enablers of an open, interoperable architecture from which NHS Wales can derive value, insight and intelligence from healthcare data (1.03)
- Develop the data strategy and implement a national data platform to deliver the foundations and approaches to support data driven insights and Artificial Intelligence (1.04)
- Support the provision of a data platform for Public Health Wales through the National Data Resource programme (1.05)
- Migrate Welsh Clinical Portal to open standards and a single instance (1.06)





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.

PEOPLE



Clinicians and non Clinicians have a mixed landscape of data and tools on which to base decisions, much of it on paper

NHS staff making more decisions based on evidence of outcomes and value

Skills shift to interpretation of data trends and data connections

Data engineers and analysts – skill shortage

Patients' self care and prevention requires accurate reliable data

Clinical ways of working will change as data standards will be mandated

Data (rather than document) driven clinicians

Machine learning opportunities, eg identifying cancers will change the role of the clinician

'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' - Healthier Wales.

PROCESSES



Monitoring

Analysis with manual intervention

Hard Coding and Classifying

Data Governance and Management

Automation

Data Cleansing

Integration

Data engineering

Enhanced Integration message patterns

Artificial Intelligence

Machine Learning

Work with Digital Health Ecosystem Wales – Life Sciences Hub

TECHNOLOGY



- Welsh Enterprise Master Patient Index
- User identification service (NADEX)
- Integration Services
- Welsh Results Reports Service

- Welsh Care Records Service
- Welsh Reference and Terminology Service

- Welsh Electronic Forms Application
- Data warehouses
- Clinical Data Engine incl. cancer treatment and medicines data

- National Subscription Service
- Developer Portal
- API Management Tool
- National Data Resource
- Architectural Building Blocks

● Cloud Storage See Sustainable Infrastructure Portfolio

- Encounter and pathways service
- National Data Platform

Open Architecture

DATA



Information Standards

Software Standards

Support access to digital innovation : UK Serp, SAIL data environment

Common assessment data, eg nursing and community data

FHIR /HL7 v2/ Open EHR

Dashboards

Implementing new nationally recognised classifications and medical terminologies: SNOMED CT

Working with medical terminology, eg GP Read codes
ICD (international Classification of Diseases)
Local classifications
Supplier specific classifications

Data Strategy

INFORMATION AVAILABILITY AND FLOW

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.



STRATEGIC DRIVER

The [Digital Architecture Review](#) was commissioned by Welsh Government and NHS Wales to assess ‘the extent to which the current Digital Architecture of NHS Wales is ready to meet the ambition set out in *A Healthier Wales*, and whether it is scalable to support digital transformation across Welsh health and social care’. Published in 2019 it sets out several recommendations, with an overall theme of creating an open digital architecture. This aligns to the call in *A Healthier Wales* to ‘develop an open platform approach to digital innovation, through publishing national standards for how software and technologies work together, and how external partners can work with the national digital platform and national data resource.’

The main actions to establish an Open Digital Architecture commence with defining a set of architecture building blocks to facilitate the open architecture. These building blocks are a logical construct and can be thought of as the foundational components of our architecture, on which current and future digital applications and services are built.

NEXT STEPS

- Additional building blocks to be defined through work on the Data Strategy
- Considering opportunities which will evolve from Cloud
- Start planning the delivery of priority building blocks
- Establish cloud FHIR repository to store all care data and enable an open architecture (Welsh Clinical Data repository (WCDR))
- Data flows from local and national applications and repositories into the WCDR
- Acquisition into a national store for data and analytics
- Data science and machine learning enabled by the national data store and specialist tooling

[Back to Summary](#)

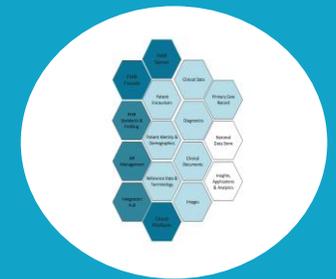
STATUS

The main Building Blocks that facilitate an open architecture have been scoped with a determination of whether these are new capabilities or an evolution of existing capabilities.

A strategy for each building block has been defined, establishing the direction of travel to provide the capabilities needed to support an open architecture.

These blocks are:

- High Level Approach (overview)
- Fast Healthcare Interoperability Resources (FHIR) Façade, FHIR Server and Cloud Platform
- Standards and Profiling
- Integration Hub
- Reference Data and Terminology
- Patient Identity and Demographics
- Patient Encounters
- Clinical Data Engine
- Clinical Modelling
- Diagnostics
- Clinical Documents
- Images and the Image Archive
- Primary Care and the Welsh GP Record (WGPR)



A procurement has been awarded already for an API Management Tool.

We will operate within a model of interoperability standards that will enable the sharing of data to appropriate settings, working in-house, with NHS Wales colleagues and with private sector partners.





STRATEGIC DRIVER

The National Data Resource (NDR) programme is a strategic imperative for health and care in Wales. It underpins delivery of the commitments made in *A Healthier Wales* with goals to deliver a more joined up approach to health and care data across Wales.

The vision is

- **Wales Leading the Way** - Supporting health and care in Wales to be innovative, modern and using data to drive decisions
- **Research, Data Sciences and AI** - To inform better care and projects
- **For Clinicians, Carers and Other Decision Makers** - Using the data to provide recommendations and insight
- **Key Enabler to Improve Our Services** - The NDR is a national initiative to better enable health and care to improve patient experience and service outcomes
- **Big Data Capability** - Cutting edge solutions
- **Faster, Easier Access to Data** - More automated, more open, linked data

NEXT STEPS

- Development of Data Strategy early 2022
- Opening up the architecture
- Standards-based interoperability
- Federated Welsh Clinical Data Repository
- Data analytics

STATUS

The National Data Resource Programme was formally established in 2019 to deliver the local and national data platforms that underpin the Digital Health and Care Record, and, to service analytical data stores through a federated approach across the health and care system in Wales. A business case covering 2021 to 2023 was approved in 2021.

In Sept 2021, the National Data Resource Programme Board approved the procurement of a partner to support the development of a Data Strategy. The strategy will enable the delivery of the data and analytical capabilities for Wales aligned to the National Data Resource's strategic aims.

Key deliverables:

- As is Statement
- Data Vision
- Governance and Operating Model
- Architecture and Technology appraisal
- Recommendations, Roadmap and Plan



Improving the way data is collected, shared and used across health and care organisations in wales : driving forward interoperability

PROTECTING PATIENT DATA VISION



Enabling Digital Transformation



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.



IMTP
2022-2025

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 host the NHS Wales Cyber Resilience Unit on behalf of Welsh Government, with separate managerial and governance arrangements, to provide ongoing cyber security assurance and reporting on 'cyber posture'. 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.

OUR DELIVERY STATEMENTS:

- Develop and promote a national IG framework for Wales to enable safe and secure sharing of patient information (2.02)
- Continue to embed and drive the national cyber security agenda (2.04)
- The independent Cyber Resilience Unit, as a delegated authority from Welsh Ministers will audit and support operators of essential services across NHS Wales and report our national adherence to the Security of Network and Information Systems (NIS) Regulations to the Welsh Government (2.05)

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



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 requires openness and transparency and the 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 information 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.



31 Citizen



IG Specialist



GP Practice Manager



Security Specialist



Wider NHS

PROTECTING PATIENT DATA ENABLER ROADMAP

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.



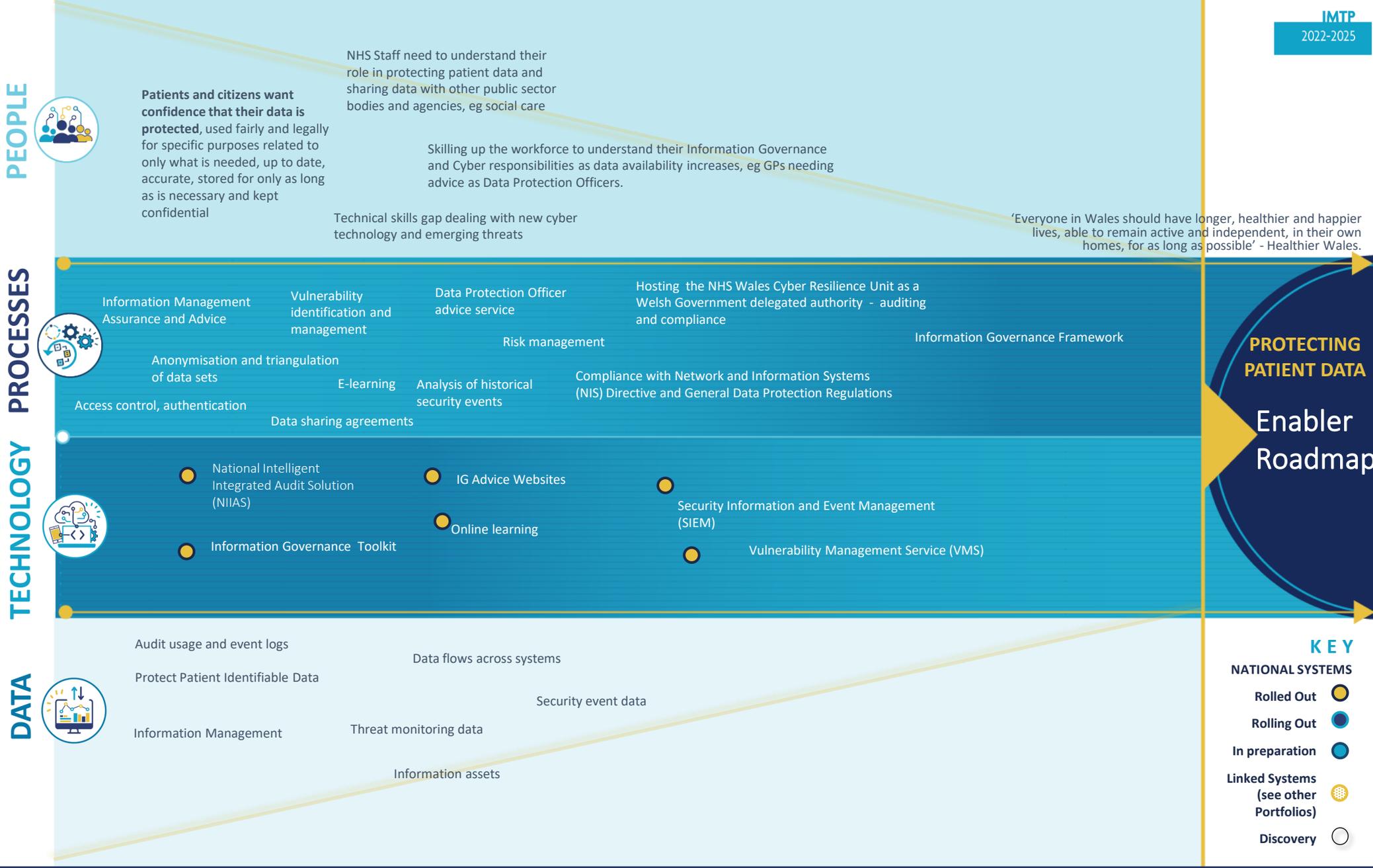
FUTURE STATE:

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. Welsh Government Digital Governance will effect the overall scope of protecting patient data



PROTECTING PATIENT DATA
Enabler Roadmap

KEY

- NATIONAL SYSTEMS
- Rolled Out (Yellow circle)
- Rolling Out (Blue circle)
- In preparation (Light blue circle)
- Linked Systems (see other Portfolios) (Dotted circle)
- Discovery (White circle)

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



Enabling Digital Transformation



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



IMTP
2022-2025

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.

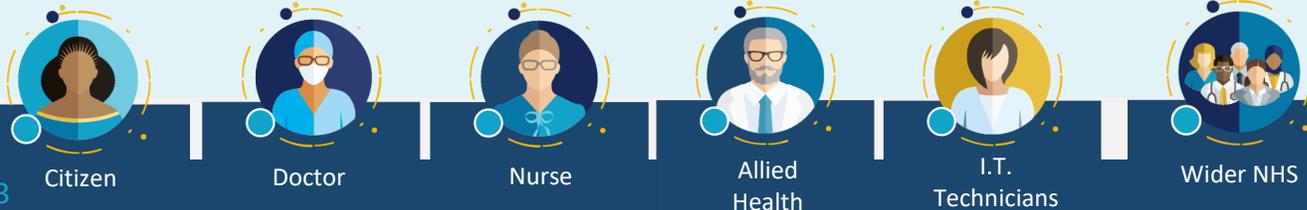
Sharing of national infrastructure with accompanying investment will be more efficient and less piecemeal.

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 ~ 2600 servers in two national data centres and 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. The **Infrastructure Design** team develops infrastructure strategies, and produces and assures designs for a wide range of DHCW Services for both on-premises infrastructure and public cloud.

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 Microsoft 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.

OUR DELIVERY STATEMENTS:

- Move more services to the Cloud, ensuring a 'Cloud-first' approach to the design and development of future services (3.01)
- Manage the lifecycle roadmap of systems including the migration of workloads from ageing infrastructure and decommissioning systems (3.03)
- Develop the infrastructure Strategy to meet the growing needs of the service and reflect technological advances. (3.04)
- Securing a replacement to our 2nd data centre and move services as required (3.06)

Trends in last 3 years



SUSTAINABLE INFRASTRUCTURE ENABLER ROADMAP



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



Servers are mostly hosted on-premises, some elements have reliability challenges. Approximately 20% of servers are in the Cloud. Limited technical resources in some teams

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
Internet first applications

PROCESSES



On-premise management Data storage, networking
Design
Identity Management and Collaboration
Fault Finding
Supporting End User Devices
Threat monitoring
On call support for critical systems
Supporting 24/7 working
Enhanced back up and restore processes
Remote Desktop Builds
Infrastructure strategy
Improved infrastructure lifecycle management
Meeting demands for Big Data and open architecture
Centre of national expertise, eg cloud
Optimised cloud management processes

TECHNOLOGY

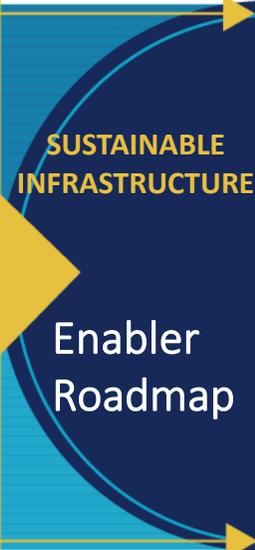


New Data Centre (No. 1)
New Network (Data Centre No. 1)
Cyber Security monitoring - see Protecting Patient Data Portfolio
End User Devices
Networks
Identity and Collaboration Service
Software defined networking
Cloud: migrate systems as 'Infrastructure as a service'
Cloud: 'Software as a service', eg device management
New data Centre (No. 2)
New Network (Data Centre No. 2)
Migrate servers to replacement Virtual Server Farm
Connectivity Review - increase capacity including internet
Cloud: optimise systems using 'platform as a service'
Modernise Comms and telephony
Carbon Neutral

DATA



Performance data
Usage predictions
Reactive Capacity Management
User registers for our clients
Monitoring
Availability data
Proactive Capacity Management
Forecasting and Modelling
Orchestration
Intelligent monitoring (end user experience)



- KEY**
- NATIONAL SYSTEMS
 - Rolled Out (Yellow circle)
 - Rolling Out (Blue circle)
 - In preparation (Light blue circle)
 - Linked Systems (see other Portfolios) (Dotted circle)
 - Discovery (White circle)

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.



STRATEGIC DRIVER

The functions of Digital Health Care Wales, when established, included reference to adopting a Cloud First approach to data hosting services for new applications and services. It also set the challenge to ensure all existing applications and services are transitioned to a cloud-based platform where possible.

Cloud allows a move away from 'infrastructure reliability' management to lower maintenance platforms, allowing resources to focus time and energy on systems that will support innovation and transform the delivery of health and care essential systems to improve health at pace.

Platforms in the Cloud reduce the maintenance needed for data stores and also provide the capability we need to underpin the National Data Resource (NDR).

Benefits include industrial grade security, future proofing with respect to new areas of functionality such as Big Data and artificial intelligence, reduction in physical maintenance needs, scalability, greater resilience and flexible capacity management.

NEXT STEPS



- Take forward the cloud strategy
- Establish staff training program throughout DHCW
- Enhanced governance and funding for cloud resource
- Implement underpinning cloud infrastructure to support National Data Resource requirements
- Incorporate Cloud migration plans into application roadmaps

STATUS

The DHCW Cloud Strategy has been developed and is based on the following principles:

- Cloud First
- High security
- Designed around service users
- Agile and adaptive governance
- Upskilling of staff
- Federated identity services
- Multi-Cloud provision – for Software as a Service (SaaS) and specific Platform as a Service (PaaS)
- Effective use of cloud tiers (SaaS, PaaS, IaaS) for new and migrated systems
- Ease of consumption eg templated service offerings
- Business processes to align to Cloud, eg finance and procurement
- Continuous optimisation
- Interoperability and portability

Sustainability availability capacity Scalability reliability safety security speed
agility flexibility reduced carbon footprint





Expanding the Digital Health and Care Record



Improving and expanding the content, availability and functionality of the Digital Health and Care Record, agnostic of health board and geographical boundaries and supporting evidence based decision making and connectivity using NHS Wales e-library and the Microsoft 365 suite



IMTP
2022-2025

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 (Mar 2021)* is underpinned by Quality statements, eg Cancer and Heart conditions which reference digital. Digital can support requirements coming out of the Framework – ie ‘opportunities to design more person-centred, holistic and efficient pathways rather than patients being seen by many different teams focusing on only one aspect of their health need’. Availability of data enablers holistic care. Quality statements for stroke, diabetes, critical care, neurological conditions and liver diseases are in an advanced stage of development by the relevant implementation groups.

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

In DHCW we have developed a system 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.

OUR DELIVERY STATEMENTS:

- Support ‘Transforming Cancer Services’ by development of the Cancer Informatics Solution using the NHS Wales national architecture (4.01)
- Meet the needs of clinical networks and cross organisation/border patient journeys by enabling recording and linkage of data within the national architecture together with access to clinical repositories-(4.02)
- Expand electronic requesting functionality, results notifications, and acknowledgements to other diagnostics disciplines (4.03)
- Embed patient analytics into our clinical systems (4.04)
- Further enable 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 the re-procurement of Microsoft 365 supported by the establishment a Centre of Excellence (4.06)
- Support delivery of new Systemic Anti Cancer Treatment All Wales solution (4.07)



Specialist Doctor



General Practitioner



Trainee Doctor



Pharmacist



Pharmacy Technician



Nurse



Allied Health Prof



Ambulance centre staff



Out of Hours Doctor



Prison Clinician



Air Ambulance Crew



Portfolio Objective

Improving and expanding the content, availability and functionality of the Digital Health and Care Record, agnostic of health board and geographical boundaries and supporting evidence based decision making and connectivity using NHS Wales e-library and the Microsoft 365 suite



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

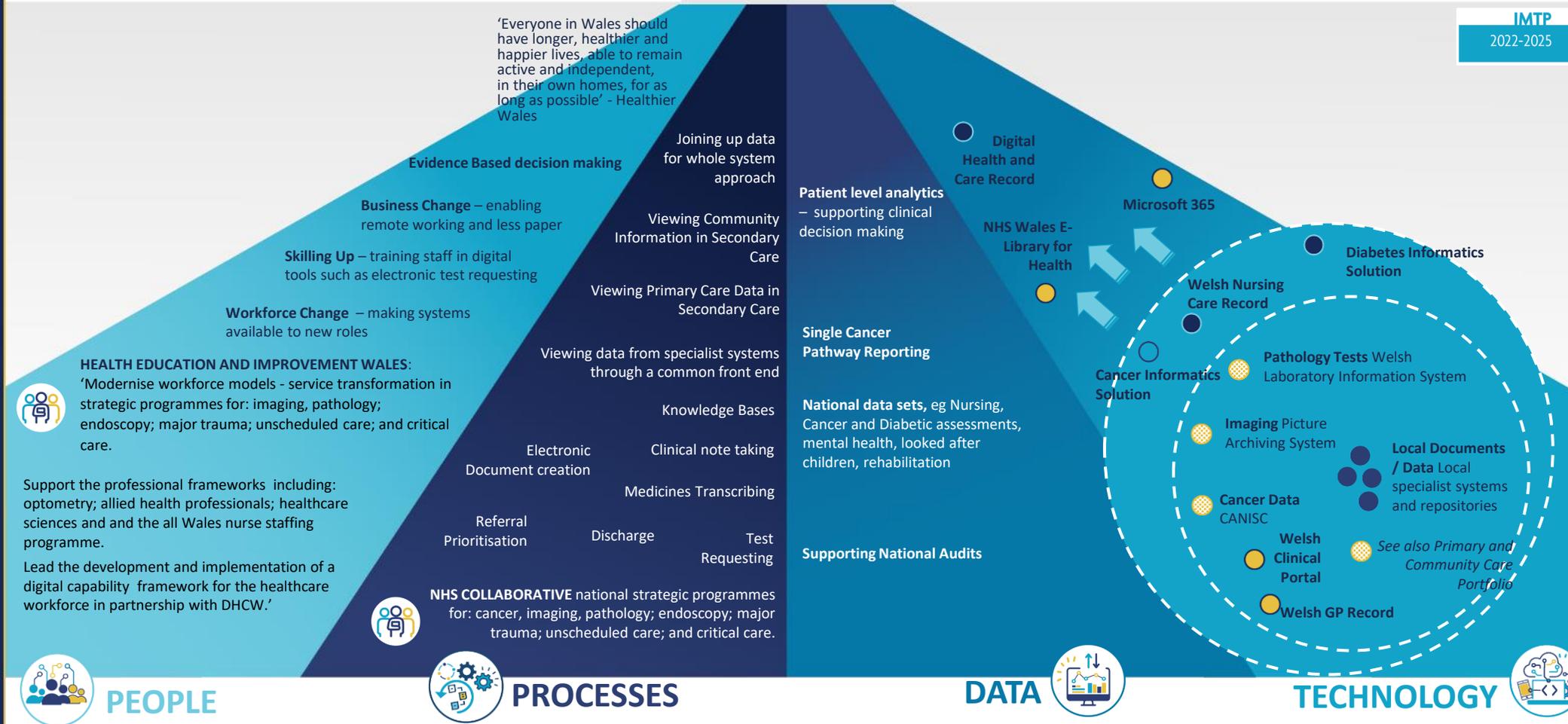
Portfolio Roadmap

KEY

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

NATIONAL SYSTEMS

IMTP
2022-2025



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.



STRATEGIC DRIVER

DHCW is working with NHS Wales to modernise cancer informatics to support service delivery, quality improvement, and greater integration of care and data to guide service development in cancer services. The Welsh Government Quality Statement for Cancer 2021 replaces the Cancer Delivery Plan which was in place up to the end of 2020 and emphasises the need for the cancer patient record to be delivered on a ‘modern and resilient IT platform that enables greater integration of care and provides the relevant data to guide service development’.

‘The ongoing implementation and further development of the single cancer pathway and its underpinning nationally optimised pathways is the vehicle that will support the delivery of consistent, high quality care and improved cancer outcomes’. Data recording of the patient along that journey is essential from which to derive intelligence and insights for further action.

The legacy national cancer system (CaNISC) is at end of life and is being replaced with the DHCW cancer informatics solution.

NEXT STEPS

- Further enhancement and testing prior to go live
- Defining further integrations
- Improving national cancer data sets
- Further development of an infrastructure to support intelligence through the National Data Resource

STATUS

Overall, considerable progress has been made to mitigate the critical risks posed by the legacy CaNISC system and replace with a modern, resilient, accessible national software for Velindre Cancer Centre and other CaNISC users.

However, more time is needed to support the significant change programme to ensure a safe transition for Velindre Cancer Centre and the deployment is now planned for Qtr 1 2022

- Business analysis and engagement with clinicians has been undertaken, enabling the definition of the scope and requirements of the minimum viable product for cancer informatics to replace the legacy system.
- The programme began releasing the first phase of software for Velindre Cancer Centre (VCC) and Health Boards to test from late 2021 and testing is ongoing.
- The detailed implementation plans for VCC and all Health Board cancer services continue to be developed and refined, led by the newly established Health Board Implementation Oversight Group.
- The CaNISC infrastructure has successfully transitioned to the new national data centre.

Developing Cancer information as part of the single patient record

Access to clinical information – national – 24/7 alerts and notifications, referral tracking, single sign-on, linked identity records, improved audit, improved coding





STRATEGIC DRIVER

A Healthier Wales has a strong focus on digital transformation. Digital can ensure that relevant information is accurate, complete, up to date, and shared between everyone responsible for the individual's care and treatment. This will make services safer and more effective by supporting better clinical decisions, and providing intelligence about likely outcomes to help prioritise and speed up treatment.

These benefits are long overdue for nurses who have been swamped with paperwork as they record copious amounts of information about patients in their care – assessments, medication, admissions, demographics details and much more. This information is shared with other clinicians, social care and the patient but the forms can be different in each Health Board and even in the same hospital with staff recording the same types of vital information but in a non-uniform way.

This project is all about agreeing national clinical standards and then providing an easy way for nurses to record the information at the patient's bedside – in a timely manner and with less repetition.

NEXT STEPS

- New functionality and enhancements to the system
- More nursing assessments standardised and digitised: woundcare record, mouthcare assessment, frailty score, food chart, repositioning chart, end of life care, fluid chart, infection prevention control risk assessment, IV and Cannula care bundles, care planning
- Further roll out across Health Boards in Wales
- Transition to a business as usual funding model

STATUS

The Welsh Nursing Care Record (Hospital) project is beginning the transition from paper to digitalised nursing documents. The aim is to release nurses from the administrative burden of completing paper nursing documents to spend more time on direct patient care.

Collaborative working between DHCW and clinical staff are producing patient assessments and care records chosen to be standardised and rolled out across Wales.

- Transforming nursing documentation by standardising data and making them digital.
- Work to develop the needs and scope of the Welsh Nursing Care Record undertaken with nurses, by nurses, for nurses.
- Using the same standardised nursing language to reduce duplication and give back time to care for patients.
- Nurses completing assessments at the patient bedside on tablet computers or other hand-held devices.
- Reporting capabilities helping to meet auditing needs and reporting requirements.
- Data captured and held centrally, and used to drive improvements and learning across NHS Wales organisations.

The Welsh Nursing Care Record won the Nursing Times Award 2020 for Technology and Data in Nursing and the British Computing Society UK IT Industry Award for Best Healthcare IT Project in the UK in 2021

Seamless care, reduced duplication, improved patient outcomes, more time to care, central storage of data for better sharing and insights





STRATEGIC DRIVER

NHS Wales has invested heavily in an all Wales Microsoft Enterprise Agreement. This brings significant opportunity to enable digital transformation across the whole system in support of DHCW's strategic priorities to **enable digital transformation** and **deliver high quality digital services**. DHCW has already delivered an ambitious programme to enable key Microsoft 365 functionality across Wales and the focus now turns on maximising this investment.

Additionally, a new Microsoft Enterprise Agreement is planned for 2022 which will likely bring additional functionality and further opportunities for digital transformation.

NEXT STEPS

- Design Target Operating Model
- Develop Service Portfolio
- Recruitment
- Establish Strategic Partner
- Demonstrate Benefits
- Agree Service Level Agreement with Health Boards and Trusts

STATUS

The initial programme to implement core Microsoft 365 features across 120,000 users is now near completion. The programme has delivered significant benefits to NHS Wales, including supporting the large scale move to remote working during the pandemic.

It has been acknowledged that investment is required to help establish a national Microsoft 365 Centre of Excellence (CoE) to provide for long-term sustainable support, development, and innovation. This will create a unique strategic capability within NHS Wales and reduce the reliance on external support going forward.

The business case to establish the CoE has been approved by Welsh Government and work is now underway on this new phase.

A new project (to establish the CoE) is in its initiation stage and planning is underway to deliver the outcomes during 2022.



DHCW Centre of Excellence
 Microsoft 365

Digital Transformation, Sustainable Services, Innovation, Reduced reliance on third parties



DHCW &
stakeholders

DIGITAL PATIENT EMPOWERMENT VISION



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



IMTP
2022-2025

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* 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 has undertaken the procurement of platform suppliers. 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.

OUR DELIVERY STATEMENTS:

- Drive delivery of patient facing health and social care applications via the Digital Services for Patients and the Public Programme (DSPP) working with key stakeholders, including the Centre for Digital Public Services (5.01)
- Operate and grow 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)
- Launch the NHS Wales multilingual patient app ensuring inclusivity and diversity, and build out with further functionality including the future of My Health Online and patient medication services (5.06)
- Enable third party patient facing initiatives across the health and care service to connect with the NHS Wales patient application and core services (5.07)

Self care and empowerment, feed back and communication



patient empowerment



Portfolio Objective

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.

DIGITAL PATIENT EMPOWERMENT

Portfolio Roadmap

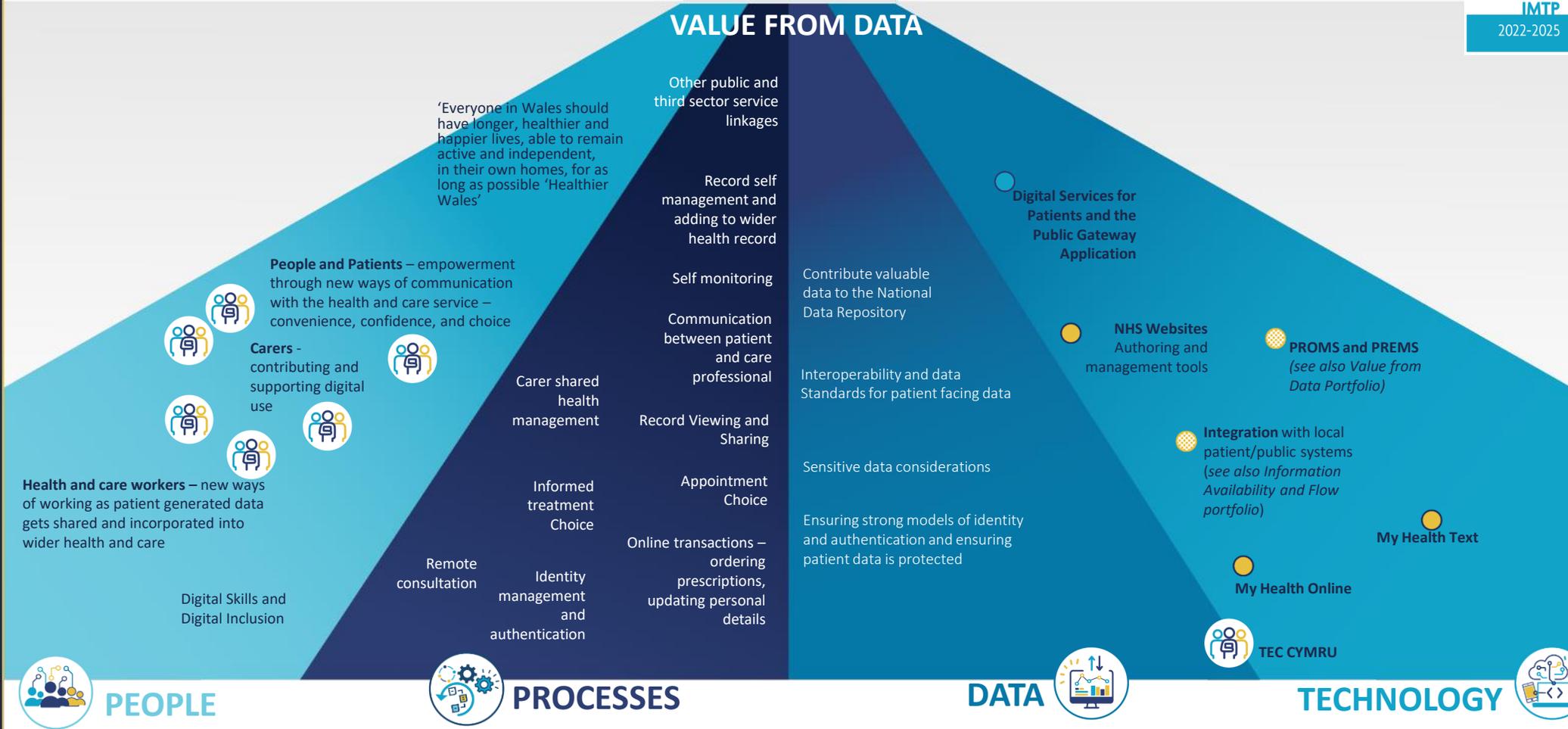
KEY

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

NATIONAL SYSTEMS

IMTP
2022-2025

VALUE FROM DATA



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.



STRATEGIC DRIVER

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. The DSPP programme also supports the strategic ambition to develop an 'open platform' approach to digital innovation, through publishing national standards for how software and technologies work together, and how external partners can work with the national digital platform and national data resource.

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.

NEXT STEPS

- Continue collaborative working with partners to develop scope of future work packages, building on the initial core services
- Support specialist pathfinder projects to develop requirements for future development / functionality
- Launch public awareness communications campaign
- Initial go-live of the NHS Wales gateway application
- Develop an accreditation service to enable third party products to be linked to the Patient App and use the core services

STATUS

- Establishment of the Programme has progressed with the development of a number of stakeholder groups underpinning the Programme Board and informing strategic direction.
- A procurement has concluded and contracts awarded for an Application and Technical Delivery Partner.
- An agile, incremental delivery methodology is being adopted. Contractual work packages will be agreed outlining the scope for each delivery phase. A discovery phase was initiated to embed ways of working and the Proof of Concept and Minimal Viable Product work packages progressed.
- Agreement has been reached with NHS Digital to enable Wales to build upon development work already undertaken to fast-track and enable the vision for the patients and the public of Wales, including the use of NHS Login to provide a seamless solution across the border.
- Significant engagement with a wide range of stakeholders, including patient groups, will be built upon through a programme of user research in collaboration with the Centre for Digital Public Services.

Data and service/application interoperability, access to resources, information governance, identity management, gateway application, user experience and control



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 2021/2022.)
- Population surveillance
- Sampling and testing different people in Wales.

As Wales starts to move out of the pandemic into business as usual, our focus will start to ensure we support existing systems and utilise their functionality for other public health challenges such as flu vaccinations.

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



Delivering high quality technology, data products and services



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



IMTP
2022-2025

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 provision of data for the Covid Pass is a major undertaking.

OUR DELIVERY STATEMENTS:

- Maintaining and maximising the functionality of our Welsh Immunisation System (6.02)
- Ensure pandemic response systems are sustainable, supported and funded, and not to the detriment of our other solutions (6.03)
- Continue to deliver flows of Covid-19 testing and vaccination data to new users, across borders and integration with new systems as required (6.04)
- Build on the Covid-19 business intelligence successes to extend our value from data offerings (6.05)
- Support priorities from Public Health Wales with respect to national Screening Programmes (6.06)
- Further develop the Welsh Pandemic Record including the Welsh Pandemic Vaccination dashboard (6.07)
- Deliver requirements and enhancements of patient booking applications through the Digital Service for Patients and the Public Programme (6.08)

test requesting, processing tests
contact tracing, screening services
view results booking, appointments



Working to Achieve a Healthier Future for Wales



Portfolio Objective

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

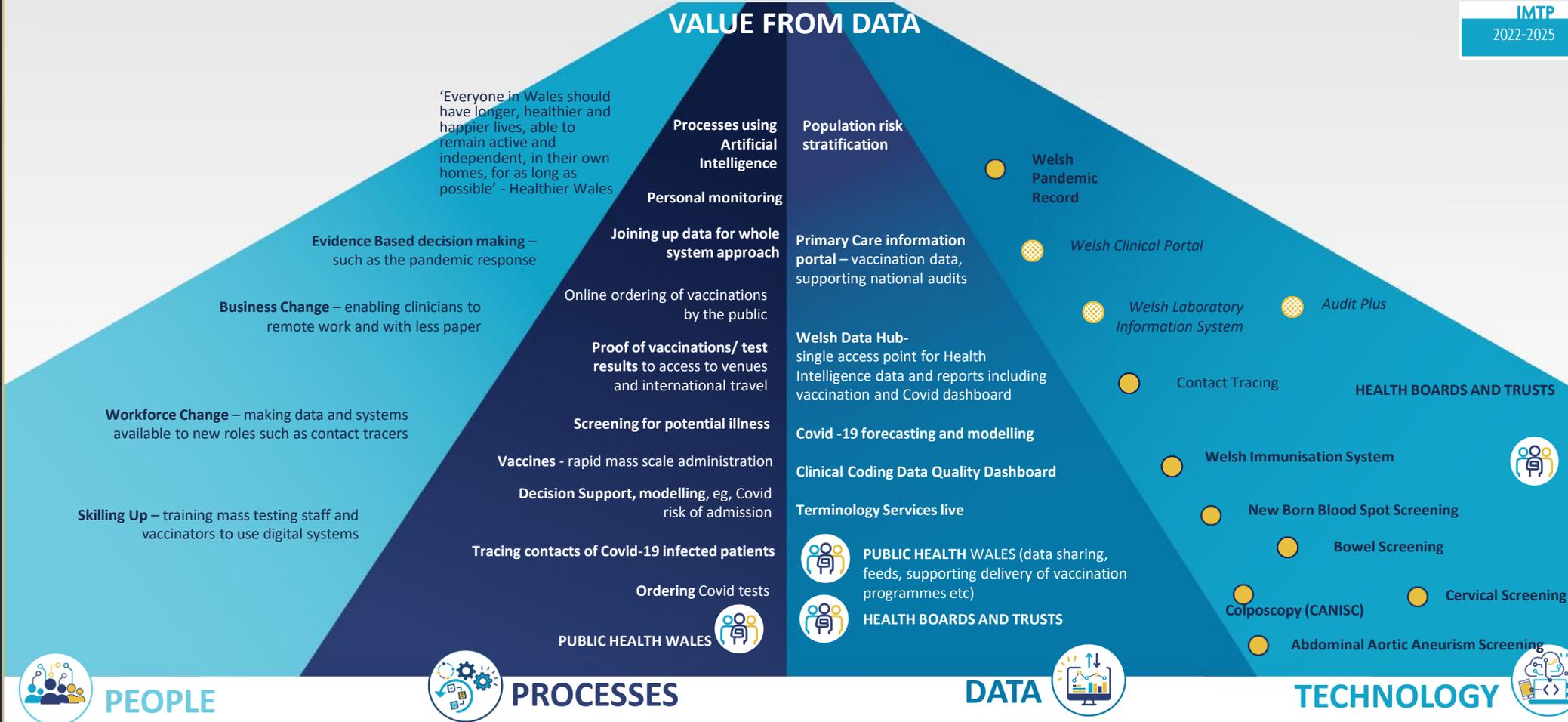
Portfolio Roadmap

KEY NATIONAL SYSTEMS

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

IMTP
2022-2025

VALUE FROM DATA



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.



STRATEGIC DRIVER

Public health strategy in Wales focuses on improving health and well-being and reducing health inequalities. This includes protecting people from infectious diseases and hazards such as the Covid-19 pandemic.

The Welsh Government's strategic aims with regard to Covid-19 are to maintain coronavirus at manageable levels, so cases do not overwhelm the NHS and to balance harm in any response, such as Covid-19 direct and indirect impact on health, society, the economy and exacerbation of inequalities.

The aims of TTP will change, as we move from pandemic to endemic and as we begin to manage Covid-19 alongside other respiratory infections. The aim of TTP since June 2020 has been to break the chains of transmission. Moving forward the new aims are to:

- Focus on protecting the most vulnerable people by:
 - Ensuring they can access treatments when they need to
 - Limiting their risk of infection
- Keep plans in place so we can respond to any local outbreaks
- Keep surveillance in place so we can detect new variants
- Ensure we can respond to a possible resurgence of the virus

NEXT STEPS

- Continuing to respond to the highest priority Test Trace Protect requirements
- Support the transition from pandemic to endemic to begin to manage Covid-19 alongside other respiratory viruses and vaccine preventable diseases
- Support requirements of a wider Welsh vaccination service as they emerge
- Covid Pass requirements, eg oversees vaccinations into Welsh systems, inclusion of test results from Welsh labs into Covid Pass
- Continue to identify cohorts of patients for targeted shielding, treatment and vaccination.
- Patient online vaccination bookings

[Back to Summary](#)

STATUS

DHCW has played a digital leadership role in the Welsh Government Test Trace and Protect strategy. This includes the provision of Covid-19 electronic test requesting and results viewing solutions, a case management and contact tracing application, development of a Welsh Immunisation System and the digital Covid Pass. Multiple data integrations have enabled data to flow within Wales, the NHS Covid-19 app, laboratory systems, and other UK locations.

- DHCW has continued to develop the **Welsh Immunisation System (WIS)**, which includes core booking functionality enhanced for boosters and flu, two way SMS appointment messages, online vaccine re-booking, an all-Wales vaccine view, and the exchange of booster data between England and Wales for visibility on the Covid pass. It is rolled out to all community vaccination centres, community pharmacies and GPs. It also interfaces with GP systems – so vaccine records are visible in GP records.
- The **Welsh Pandemic Record** system has been developed so electronic requests can be raised for anyone who books to attend a Welsh Community Testing Unit via the UK booking platform. The aim is to provide a real time status of the patient's journey during their Covid testing. It provides details of citizens' vaccines and Covid-19 test results in one place and enables the flow of COVID-19 positive test results into GP systems
- **Performance dashboards**, such as the Covid-19 Data Hub help policy leaders by giving intelligence on test and tracing data, intensive care capacity and more.
- DHCW worked collaboratively with NHS Digital in England to develop a solution to provide access to the **Covid-19 pass**. (The Pandemic Record dashboard also enables printing of the paper Covid pass) This has been instrumental for the citizens of Wales to start the journey back to normality.

The project is responding in a rapid manner to evolving requirements. This can require a significant reallocation of staff from other projects which can have a knock-on effect on other deliverables.



DHCW &
stakeholders

PRIMARY, COMMUNITY AND MENTAL HEALTH VISION

Strategic Objective

Delivering high quality technology, data products and 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



IMTP
2022-2025

NEED FOR CHANGE

The ambitions of *A Healthier Wales* 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 along with community infrastructure, urgent primary care, and mental wellbeing. These initiatives have seen heightened prominence during the pandemic.

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 Mar 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 this work and are fully supportive of the principles.

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



DIGITAL HEALTH AND CARE WALES' ROLE

We manage the contract for GP computer systems – procure and implement the systems and support the practices. 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 Microsoft 365 and video consultations.

OUR DELIVERY STATEMENTS:

- Implementing GP systems migrations from current 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 roll out the Community system including the mobile version as per Strategic Review (7.02)
- Set out the primary and community digital strategy and further integrate these systems across all health settings, including pharmacy, eye care and secondary/tertiary care teams (7.03)
- Procure and migrate onto a replacement for the current Dental Referral Management System (7.04)
- Work to continue on agreeing data sets for community care including mental health, looked after children and rehabilitation, together with business intelligence dashboards linking health with social care data (7.05)
- Support the Accelerated Cluster Development Programme by modernising information availability for those working in geographical localities, where health and care partners collaborate to understand local needs (7.06)
- Deliver healthier children digital priorities by enabling the sharing of data with primary and community care and supporting point of care health collection tools in schools by health professionals (7.07)

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:

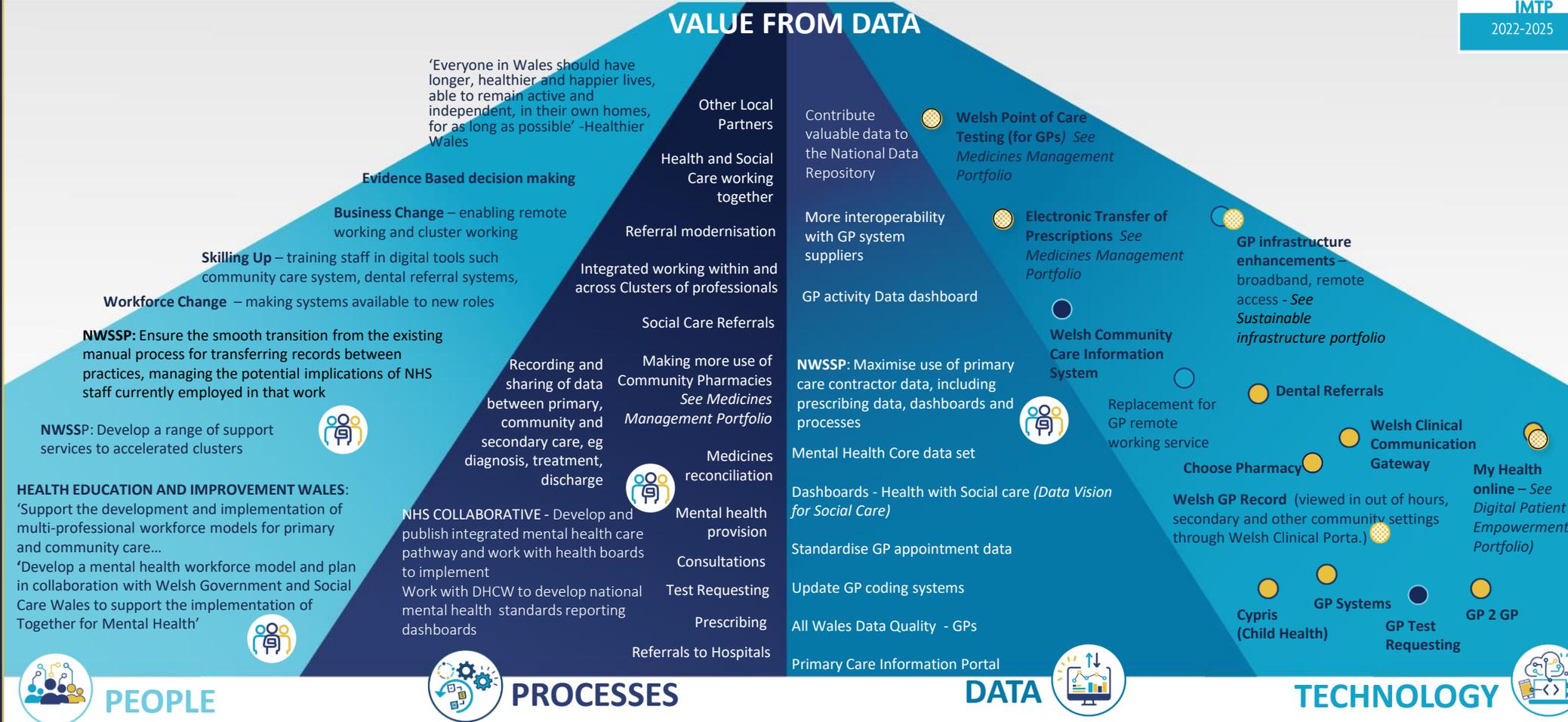
Silo systems, limited data standards, piecemeal data sharing, location specific, reactive. Start of clusters of professionals and initial roll out of a national community and social care system

PRIMARY COMMUNITY AND MENTAL HEALTH Portfolio Roadmap

KEY NATIONAL SYSTEMS

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

IMTP 2022-2025



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.



STRATEGIC DRIVER

Transferring care into the community and reducing the reliance on hospitals is a key policy driver for NHS Wales. The Welsh Community Care Information System is a key digital enablement programme for: *A Healthier Wales, the Social Services and Well-being Act*.

The Primary Care Model for Wales advocates a whole system approach that integrates health, local authority and voluntary sector services, and is facilitated by collaboration and consultation.

The *'Statement of Strategic Intent – A strategic approach to social care data in Wales'* was published in Mar 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 are part of this initiative.

The Welsh Community Care Information System is used by community nursing, social care, allied health professionals and mental health practitioners to record care provided and allows the sharing and transfer of cases across regional and organisational boundaries.

NEXT STEPS

- Publish the strategic review and develop a forward plan to deliver recommendations
- Integrations with other national systems
- Mental Health Dataset mandated through a DSCN
- Roadmap for roll out of the Proof of Concept dashboard

STATUS

The Welsh Community Care Information System is being rolled out on an All Wales basis to social care departments and health boards. A joint health and social care procurement process concluded in 2016 providing an All-Wales contractual framework which all Health Boards and Local Authorities in Wales can use for delivering a community information solution for community and mental health staff and social workers.

Roll Out: Two Health Boards are live (Powys and Hywel Dda) with a further three in pipeline (Cwm Taf Morgannwg, Aneurin Bevan, Swansea Bay). 15 Local Authorities are live. (As at end 2021).

Following stability issues over recent months, the Programme is closely monitoring performance and has commissioned a **Strategic Review** of WCCIS, the recommendations of which will be published in early 2022.

There will be a need for organisations to capture data for the new Mental Health Core Dataset with a **Data Standards Change Notice (DSCN)** due to be published early 2022 to mandate data collection. An impact assessment is currently underway into the ability of all 29 organisations to capture the required data items. Additional data items will then need to be collected in the Welsh Community Care Information System

Other DHCW work in the Community setting includes collaboration with Powys County Council on a proof of concept which brings together and visualises health and social care data for the Powys region. This proof of concept was awarded the UK Local Area Research and Intelligence Association 2021 award for best use of data. A roadmap is in the process of being developed to implement across Wales.

Better consistency of care, access to information, supports care in the community, reduce unnecessary hospital stays, reduce printed paperwork



PLANNED AND UNSCHEDULED CARE VISION



Delivering high quality technology, data products and services



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



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. This has reached a critical point in recovering from Covid with overwhelmed A and E departments and a very challenging backlog of cancelled treatments. Transformation programmes focus on planned care, outpatient modernisation and urgent and emergency care. For example the National Programme for Urgent and Emergency Care is concerned with 'what good looks like' for patients accessing an Emergency Department, using the 6 goals framework – focussing on those at greatest risk, signposting, alternatives to admission, rapid response in physical and mental health crises, optimal hospital care, home first approach.

These 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. They will look to increase the capacity of the health service and transform the way that planned care services are provided. They will care for those with the greatest health need first, making the most effective use of all skills and resources. A Planned Care Recovery plan will be published in 2022 and is expected to focus on areas such as prioritisation of diagnostic services, early diagnosis of cancer patients, eliminating long waiters and an equitable approach to patient prioritisation.

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 and record alternatives to traditional 'outpatient' attendance and emergency consultations and referral process efficiencies
- Improve clinical information flows with less duplication, less variation and more data standardisation
- Remove the 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.
- Show emergency dept live patient tracking and triage status and share information with the Ambulance Service
- Provide an electronic single view of the patient journey



Emergency Doctor



Specialist Doctor



General Practitioner



Medical Records Staff



Nurse



Outpatient Staff



Ambulance Staff



Allied Health Staff

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. We will be joining up data with the ambulance service.

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.

OUR DELIVERY STATEMENTS:

- Deliver digital and data requirements for outpatient modernisation(8.01)
- Ensure referral pathway efficiencies from hospital to hospital with our patient referral solution (8.02)
- Roll out a system to digitalise intensive care across Wales (8.03)
- Roll out the Welsh Emergency Department System across Wales (8.04)
- Replace the patient administration functionality of the current cancer solution in Velindre with the Welsh Patient Administration System (8.05)
- Implement the Welsh Patient Administration system 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)
- Deliver integration requirements from initiatives such as 111, Eye care, WAST electronic patient care record (8.09)
- Complete the discovery work for an All Wales maternity system and develop a collaborative plan to deliver digital maternity services (8.10)
- Link Scan for Safety data and feed into UK Medical Devices Information System (8.11)

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



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.

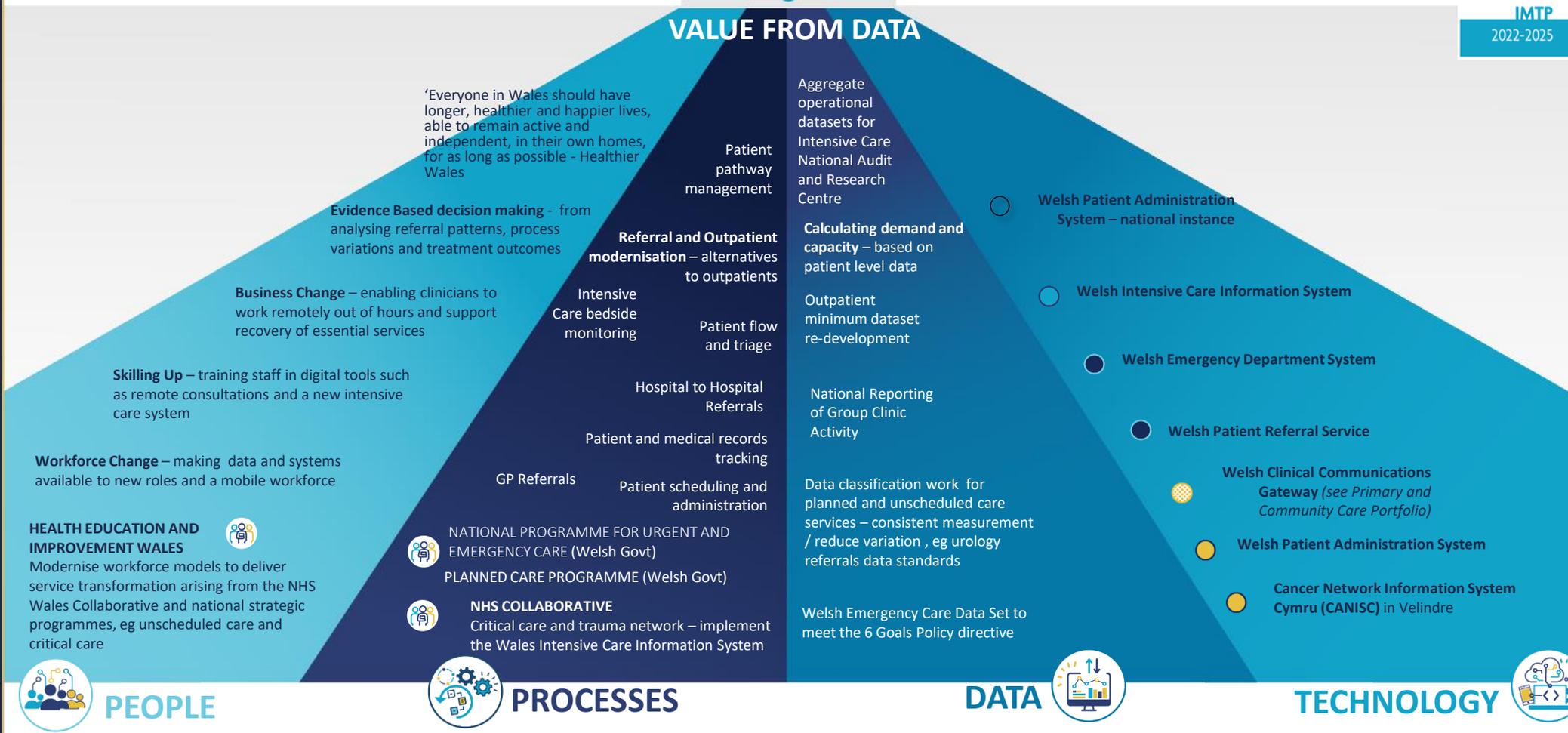
PLANNED AND UNSCHEDULED CARE Portfolio Roadmap

KEY NATIONAL SYSTEMS

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

IMTP
2022-2025

VALUE FROM DATA



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.



STRATEGIC DRIVER

Together for Health – A Delivery Plan for the Critically Ill provides a strategic framework for Local Health Boards. It sets out the Welsh Government’s expectations of NHS Wales in delivering high quality critical care, ensuring that the right patient has the right care at the right time. The Delivery Plan is split into five core themes as listed below along with a rationale for how the Welsh Intensive Care Information System supports this vision:

- **Delivering appropriate, effective ward-based care** – through the elimination of paper charts and manual observations, meaning less time collecting and accessing information and more time delivering care to patients.
- **Effective critical care provision and utilisation** – improving business intelligence, allowing for real-time or near-real-time reporting of key critical care statistics and by helping to support the reduction in variation across Wales by developing standard procedures through best practice.
- **Timely Admissions to Intensive Care** - through effective reporting and an overview of bed availability.
- **Timely Discharge from Intensive Care** – through improved monitoring of patients and increased data quality, meaning that clinicians are better able to plan and prepare for patients to be discharged.
- **Improving information and Research** - Improved data quality and automated reporting, as well as links to the national data warehouse mean that big data and deep learning techniques can be used to improve clinical practice.

NEXT STEPS

- Complete configuration and undertake rigorous testing of the infrastructure both within the national datacentres and for local business continuity within early adopter
- Continue collaborative working with critical care community and system supplier to finalise outstanding clinical refinements.
- Launch staff awareness campaign
- Initiate local project delivery in all remaining Health Boards
- Commence rollout to all adult critical care units across Wales

STATUS

- A £13m contract has been awarded for the development of a national critical care information system for NHS Wales with telecommunications company Ascom who will develop and manage the system over a seven-year period. The company’s Digistat clinical information system will enable care staff across Wales’ 14 adult critical care units to electronically manage care.
- The current focus will remain on continued engagement and involvement of the critical care community across Wales, who have been instrumental in informing the design and creation of standardised assessments and workflows to achieve our aim of reducing variations of care.
- Work is ongoing in terms of planning across NHS Wales.
- An agile, incremental delivery of development and testing has been adopted, which will ensure visibility of progress with tight monitoring and control of the timescales.
- Significant progress has been made to integrate a number of bedside devices to the central solution. Recent tests shared bedside monitor data for all 24 critical care beds within the Grange University Hospital.

Record patient assessments, manage prescriptions and drug administration, vital signs and fluid balance, acuity scores, support infection control, daily care plans





STRATEGIC DRIVER

The National Programme for Urgent and Emergency Care is a national programme prioritised by Welsh Government to gain an understanding of 'what good looks' like for patients accessing an Emergency Department.

This requires the creation of a Welsh Emergency Care Data Set (WECDS) to agree care standards, a uniform approach to measuring activity and a nationally agreed model of care for emergency departments to enable optimisation of clinical outcomes and patient and staff experience. Aims are:

- Improved clinical outcomes by emergency departments.
- Improved patient experience and quality of care within emergency departments.
- Enhanced engagement of emergency departments' workforce.
- Increased value for money achieved from emergency departments funding through innovation, improvement, adoption of good practice and eliminating waste.

Technology is key to the recording of agreed data sets which in turn enables effective clinical decision making and provides intelligence needed to improve clinical outcomes and improved service planning.

NEXT STEPS

- Work on data sets design and roll out for emergency departments and ambulance services
- Making the Welsh Emergency Department system available for roll out in other health boards
- Agree approaches to integrations with other systems

STATUS

DHCW is implementing a managed service with EMIS Health to deliver the Welsh Emergency Department System (WEDS). DHCW is responsible for hosting the infrastructure, integration with other national systems and managing the national contract. The system has gone live in the first site in Swansea Bay. Key features are:

- Creating a core dataset and understanding of activity and flow through Emergency Departments
- Improving the ability to record structured clinical data and re use that data for better operational management, audit and planning purposes
- Emergency Department live patient tracking and triage status
- Supporting an efficient integrated patient pathway through the emergency department
- Improving the clinical and operational information available

Safer, more informed, efficient, effective and safer data capture, standardised, data analysis, insights





STRATEGIC DRIVER

Strategic drivers focussing on planned care / secondary care include the *Healthier Wales* strategy and programmes such as Planned Care set up to modernise the outpatient system where patients have to visit a secondary care setting to see a specialist. The Planned Care Programme's aim is to 'support NHS Wales to build sustainable services'. It recognises that service transformation to modernise and streamline pathways of care, as well as further digital solutions are required. There are opportunities to 'implement new pathways to support the management of an increased waiting list for outpatient appointments differently in the future'. This is significantly more of a challenge dealing with the backlog of services impacted by Covid-19.

The National Clinical Framework aims for **more integrated, seamless clinical pathways** – the current system has patients seen by many different teams focussing on only one aspect of their care. Understanding where the patient is on their journey is key to this.

There are five goals of planned care modernisation:

- **Effective referral:** Ensure that referral guidance and thresholds are in place to ensure that those most in clinical need are referred to the appropriate setting.
- **Advice and guidance:** Develop access to high quality advice and guidance to enable informed decision making for individuals as well as primary and secondary care clinicians.
- **Treat accordingly:** Access to appropriate care at the right time at the right place.
- **Follow up prudently:** Giving individuals more choice and control over their care.
- **Measure what's important:** Transforming care to better meet the clinical need of the patient.

Our **Welsh Patient Administration System (WPAS)** plays a key part in planned care modernisation and supports delivery of appropriate, timely treatment by recording where the patient is on their route through secondary care, in particular the administration of outpatient appointments and hospital admissions. It can be used to identify where patients are facing unacceptable delays in treatment and support the planning of NHS services to meet the needs of patients.

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STATUS

The Welsh Patient Administration System is a mature system rolled out to the majority of Health Boards in Wales. It has around 30k users in 2021 and saw a 19% growth in the last three years. Five health boards use the system. Cardiff and Vale has a separate system and roll out is partial in BCU and planned for Velindre Cancer Centre. The average transactions per month are 350 million including admissions, outpatient and emergency attendances. Users include Health Board administration staff and some clinicians.

The modernisation of outpatients is redefining patient contacts to reduce the need for the patient to always travel to a hospital for specialist care. Patient administration systems will therefore need to record this and help clinical decisions with risk stratification, triage and advice functionality, virtual consultation, and remote follow up data recording.

NEXT STEPS

- Implementation of new hardware
- Supporting the WPAS go live in Betsi Cadwaladr Health Board (BCU West into single instance)
- Supporting the go live of the WPAS system in the Velindre Cancer Centre – replacing patient administration functionality currently in an out of support system (CANISC)
- Recording the outpatient modernisation dataset
- Recording the Patient Administration Systems Outcomes dataset
- Development of a referral activity and secondary care patient pathway repository (WRAPPER)
- Future technical design of the Welsh Patient Administration System
- Work on reconfiguring the Welsh Patient Administration System to meet the AMBU / Cwm Taf boundary change

Patient administration, waiting list management, pathway management, emergency department, maternity and theatre management, clinical letter creation. Bed management status.





Strategic Objective

Delivering high quality technology, data products and services



Portfolio Objective

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



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 models 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.



Laboratory Staff



Pathologist



Radiologist



Radiographer



Nurse



Doctor

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.

OUR DELIVERY STATEMENTS:

- Work with the new national Laboratory Information Management System (LINC) Programme on integration, infrastructure and other requirements (9.01)
- Support the integration of the new Radiology Informatics Solution (RISP), including new Picture Archiving (PACS) and Radiology Dosage Management Solutions (9.02)
- *Expand electronic requesting functionality, results notifications, and acknowledgements to other diagnostics disciplines (See Digital Healthcare Professional Empowerment)*
- 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, screening, endoscopy, audiology, cardiology, respiratory, spirometry, medical genetics, English border hospital results (9.05)
- Maintain, dual run and plan to decommission the existing laboratory management system including access to legacy data (9.06)
- Maintain, dual run and plan to decommission the existing radiology management system including access to legacy data (9.07)
- Support the National Endoscopy recovery programme (9.09)

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



Portfolio Objective

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

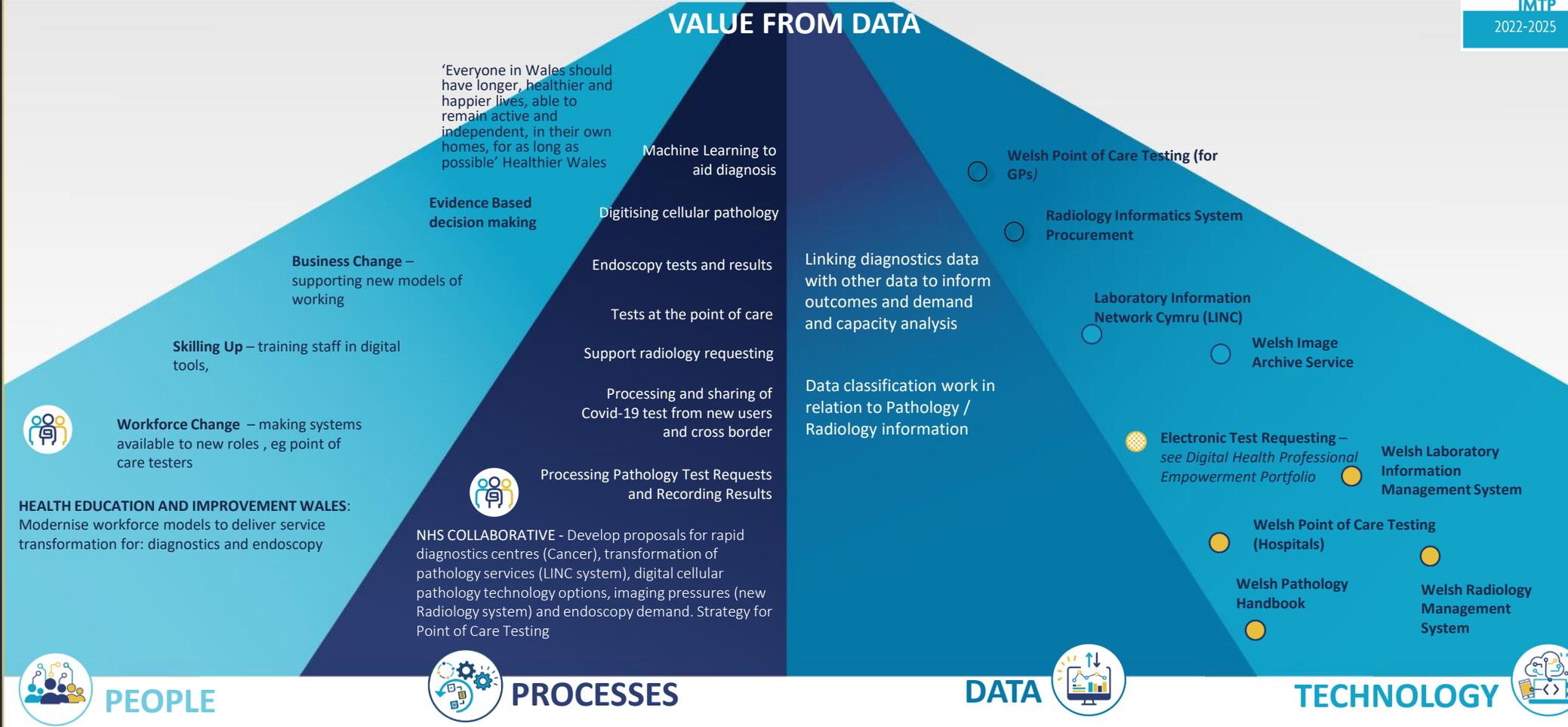
CURRENT STATE:
Separate radiology system instances, national Laboratory system but not fully standardised. National framework agreement for PACs system but image sharing not in place for radiology specialists. Diagnosis services based at hospital sites.

DIAGNOSTICS
Portfolio Roadmap

KEY NATIONAL SYSTEMS

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

IMTP
2022-2025



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 technology, data products and services



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



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NEED FOR CHANGE

By 2030, pharmacy services will be designed around patient needs. *Pharmacy Delivering a Healthier Wales* - Apr 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

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

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 Welsh Hospital Pharmacy Stock Management 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 and have started a programme of delivery.

OUR DELIVERY STATEMENTS:

- Respond to the Welsh Government commissioned E-Prescribing Review by implementing a major transformation programme (10.02)
- Provision of a shared medicines record that utilises a centralised medicines reference service, allowing access to medicines information regardless of where this originated - enhancing patient safety and streamlining the delivery of care. (10.03)
- Implement electronic transfer of prescriptions by establishing the digital communication of prescription information between prescribing and dispensing systems within primary care to enable efficient processes. (10.05)
- Implement e-prescribing across secondary care in Wales through the delivery of electronic prescribing and medicines administration (ePMA) solutions, adhering to national open standards to ensure interoperability. (10.06)
- Introduction of patient access to medicine information from primary, secondary and community pharmacy systems via the development of a patient app to help promote patient empowerment and self care. (10.07)





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:

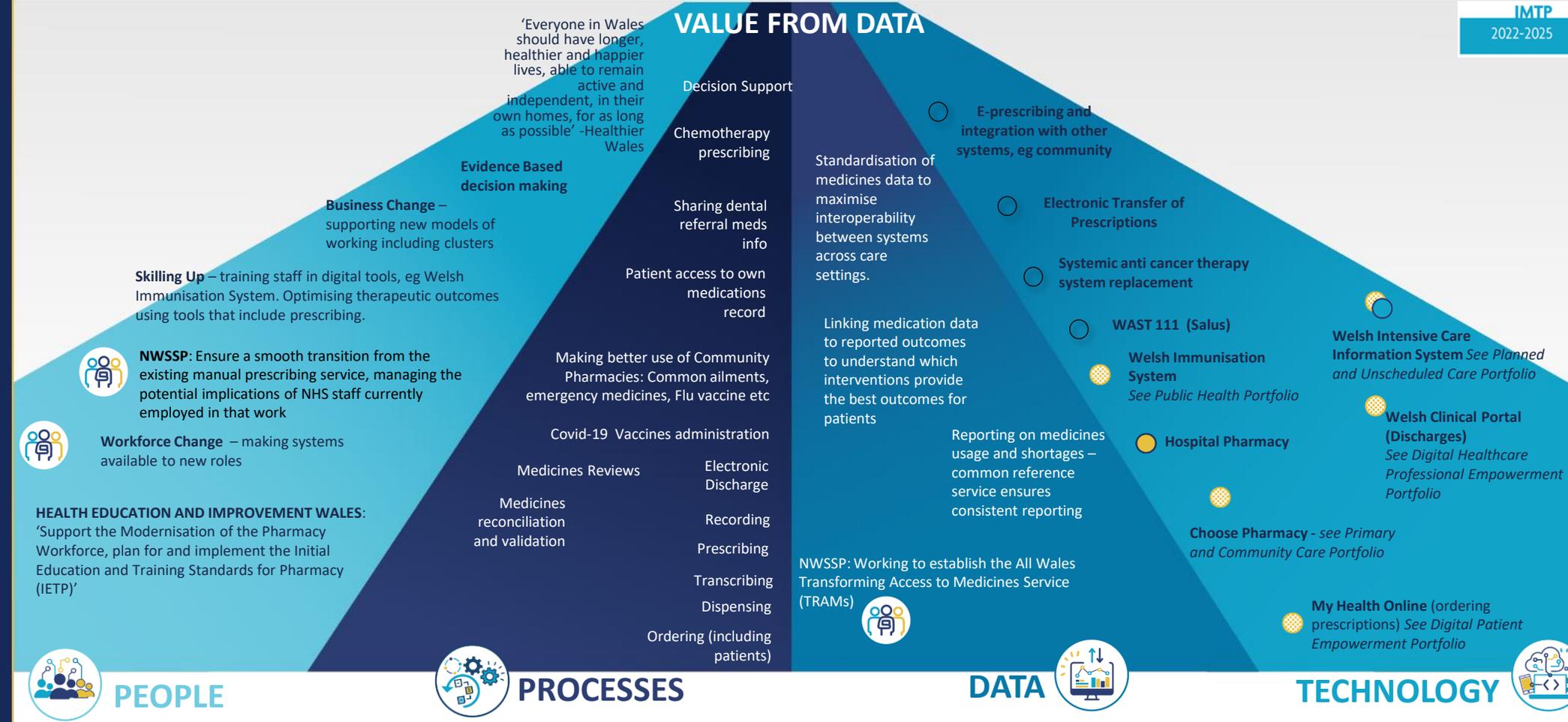
Paper prescribing, silo systems, limited data standards, piecemeal data sharing, location specific, reactive

DIGITAL MEDICINES
Portfolio Roadmap

KEY NATIONAL SYSTEMS

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

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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.



STRATEGIC DRIVER

A Welsh Government Review of E-prescribing was published in 2021 with a view to introduce e-prescribing through the lifecycle of a prescription. E-prescribing and medicines management can improve and digitise the way patients, clinicians and pharmacists access and manage the provision of medicines across the health system. 'This will include: patients' access to medicines, prescribing of medication by clinicians, the assurance and dispensing of prescriptions by pharmacists, and the auditing and pricing of medicines by monitoring authorities.'

This Programme will partner with DHCW programmes to deliver patient access to medications (Digital Services for Patients and the Public – DSPP) and a medicines data store (National Data Resource). It will join the dots with other DHCW built or procured systems such as Choose Pharmacy and the Welsh Hospital Pharmacy Stock Management System.

NEXT STEPS



- Resourcing and recruitment for the programme
- Award a framework contract to enable health boards to select a suitable electronic prescribing and medicines administration system for secondary care
- Readiness work for local implementations (ePMA)
- Designing a Shared Medicines Record

Electronic prescriptions, electronic signatures, digitally inclusive, complimenting current ways that patients access services

STATUS

The Programme has been initiated with the backing of Welsh Government and comes with associated funding. The Senior Responsible Officer has been appointed, along with a lead architect and senior programme management. Steering Group meetings have been established and the Programme is working through the set up and planning activities.

There are four main threads:

- hospital e-prescribing and medicines administration (ePMA)
- electronic transfer of prescriptions from GPs to Community pharmacies
- shared medicines record
- patient access

These will deliver:

- A digital service for the issue and receipt of prescriptions, eradicating paper from the prescription process
- A method for prescriptions to be sent electronically from the authorising prescriber directly to the pharmacy for fulfilment
- Electronic drug charts in hospitals to simplify administration of medicines
- Ordering of repeat prescriptions and recording of when medications have been taken (through the Digital Services for Patients and the Public App)
- Removing the purchase and long-term storage costs of paper prescriptions from the prescribing process
- Data shared with clinicians across Wales so that it can be used where and when it is needed for better care; anonymised data available for secondary uses



NEED FOR CHANGE

Research and innovation in the digital and data sense is about the introduction and application of new processes and ideas to solve problems and bring improvements to benefit staff and the wider NHS in Wales. The need to derive insight and knowledge from the vast quantities of data which the NHS records is essential in recovering from the Covid-19 pandemic and bringing solutions to deal with the resultant challenges.

Innovation, modernisation and improvement of digital health is central to the DHCW vision and the driving force behind many, if not all, of the deliverables and aims described in this plan.

Prerequisites include the identification and adoption of best practice, an evidence-based approach to health informatics, the promotion and appraisal of knowledge management resources, intelligence sharing across networks and, where gaps or uncertainty remain, agile but structured research programmes.

DHCW recognises its role as a long established key provider of expertise, data and infrastructure for Welsh Government commissioned Research and Innovation conducted across the NHS and academia in Wales, and the need to rationalise and where possible address the demand for such support beyond the traditional domains of technology and informatics - for example in areas such as precision medicine, Value in Health, genomics and the impact of the 'Triple Challenge' (Covid19, Future Generations and Climate Change) on healthcare provision and planning.



OUR DELIVERY STATEMENTS:

- An increased focus on Research and Innovation, building the internal team and developing a Research and Innovation strategy aligned to DHCW's strategic objectives and the needs and demands of the health and care system in Wales (11.01)
- In response to the Data strategy, develop the framework and structures to ensure data science practice and Artificial Intelligence approaches are supported (11.02)



DIGITAL HEALTH AND CARE WALES' ROLE

Whilst our future focus will be on defining a Research and Innovation strategy for DHCW encompassing the breadth of our functions and responsibilities, a more expansive role in leading on digital R&I strategy across healthcare and other sectors will be also be adopted, both nationally and internationally. This will be underpinned by more formal and selective partnerships with academia, government bodies and industry, especially so for those priority areas ('domains') requiring specialist collaboration where established centres of excellence already exist.

DHCW will also add R&I value to the growing data store of clinical information derived from our own home grown digital solutions, those of our local health partners and those provided by external third party suppliers, bringing together Data Science and more traditional health intelligence methodologies to support clinical and service planning decisions. The National Data Resource (NDR) and NDR Data Strategy will be a key strategic resource here. DHCW and the NDR Programme will work with colleagues in Welsh Government, Public Health Wales, Health Boards, Trusts and academia to realise the benefits. R&I links with Health and Social Care Research Wales, Digital Health Ecosystems Wales, Life Sciences Hub, the Covid Evidence Centre, Health Technology Wales and other specialist R&I bodies will also be nurtured.

To help develop a culture of applied Research and Innovation and formalise strategy and processes for R&I across the organisation, a R&I Working Group has been established to coordinate engagement, enablement and delivery. For 2022/2023 priorities include:

- R&I requirements gathering and engagement (working with Health and Care Research Wales)
- Establishment of a Secure Research Platform (SeRP) and IG protocols for R&I data access (hosted by DHCW/NDR but accessible to DCHW research partners)
- Appraising Advanced Analytics proposed R&I 'use cases' (including those based on predictive analytics, Artificial Intelligence based clinical support, Natural Language Processing to unlock unstructured data, Machine Learning algorithms and Chatbots)
- Joining with UK and international digital research networks to deploy and establishing strategic partnerships with academia and industry for agreed key DHCW R&I domains



Patient



Healthcare Provider



Academia, Industry and Government

Modelling, analysing, evidencing, predicting, partnering, pseudonymising, networking, innovating



Portfolio Objective

Driving value from data for better patient outcomes and service planning

EXAMPLES FROM PUBLIC HEALTH

DATA HUB

Developing the Data Hub for both COVID-19 summaries and in-depth explorations of data. Develop other data views to facilitate more informed decision making in near real-time.

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

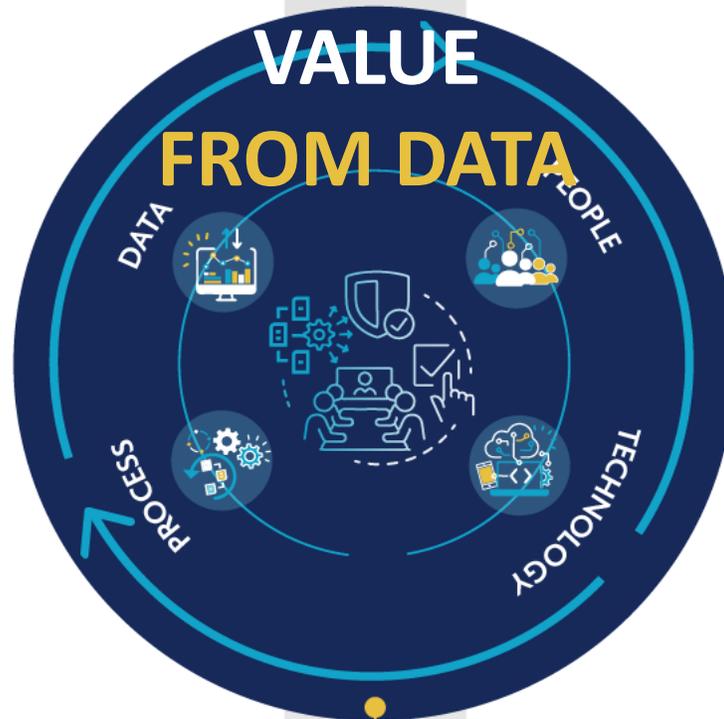
PRIMARY CARE INFORMATION PORTAL

Supporting 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 and vaccination priority groups, National Audits, Quality Assurance and Improvement Framework (QAIF), chronic disease management and screening and vaccinations data for Public Health Wales.

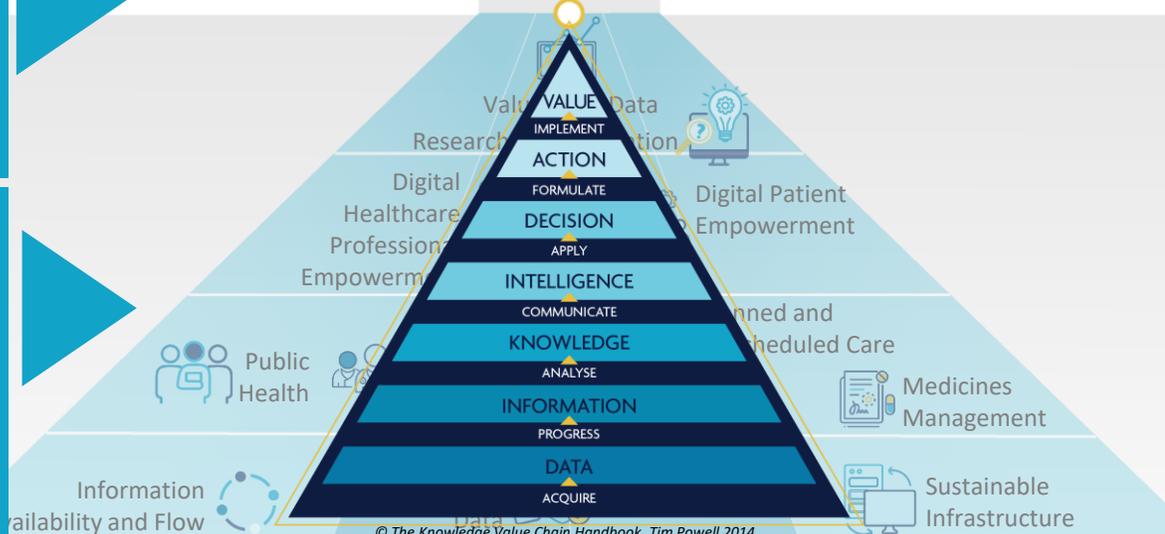
EXAMPLES FROM COMMUNITY CARE

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.



‘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’ - Healthier Wales.



EXAMPLES FROM PLANNED AND UNSCHEDULED CARE

VALUE IN HEALTH

The 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.

OUR DELIVERY STATEMENTS:

- Continue to deliver the requirements of the COVID-19 response including new developments around data, analysis and reporting (12.01)
- Deliver the analysis and modelling of data in relation to the NHS reset and recovery of services provision (12.02)
- Utilise our systems in support of the Value in Health Programme, including support for the development of standards for PROMS and PREMS. (12.03)
- Bring together information streams and dashboards into one Health Intelligence Portal including, Primary Care, COVID -19, Value in Health, Cancer and Unscheduled Care data. (12.05)
- As an official Stats publishing body, improve the availability of data in the public domain (12.06)
- Support the National Clinical Framework with data visualisation opportunities to redesign and improve patient pathways (12.07)
- Support the implementation of the Health and Social Care Quality and Engagement Act as it becomes embedded (12.08)
- Open up data, within appropriate IG controls, to improve access and overall value of the use of healthcare data (12.09)
- Ensure continued access to GP data for the wider system (where agreed) for primary care and system recovery. (12.10)



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Our Financial Plan

DIGITAL HEALTH
AND CARE WALES

IMTP

2022-2025

IMTP FINANCIAL PLAN OVERVIEW

THE FINANCIAL STRATEGY

The Financial Strategy of the organisation both supports and underpins the service and investment strategy set out within the 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. For 2022/2023 a gross revenue requirement amounting to £152m is forecast to underpin the resource requirement with capital investments totalling £9.9m 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.

| Spend Area | Revenue | | | | Capital | | | |
|--------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|
| | 2021/22 £m | 2022/23 £m | 2023/24 £m | 2024/25 £m | 2021/22 £m | 2022/23 £m | 2023/24 £m | 2024/25 £m |
| Core | 102.314 | 110.463 | 119.757 | 125.885 | 2.969 | 2.259 | 2.259 | 2.259 |
| DPIF | 14.441 | 31.536 | 26.962 | 23.030 | 6.700 | 7.145 | 3.588 | 2.920 |
| COVID-19 | 11.492 | 10.258 | 0.000 | 0.000 | 0.865 | 0.500 | 0.000 | 0.000 |
| Total | 128.247 | 152.257 | 146.719 | 148.915 | 10.534 | 9.904 | 5.847 | 5.179 |

KEY PLANNING ASSUMPTIONS

The IMTP financial plan 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 Cost Improvement Target is to be levied on discretionary budgets. The financial plan is reflective of workforce recruitment and onboarding forecasts.

SUPPORTING VALUE

The finance team in partnership with service leads and stakeholders Wales wide will look to initiate a review of organisational funding flows to ensure the most effective mechanism is in place to support efficient planning and provide the best outcomes.

RESOURCE AND INVESTMENT INITIATIVES OUTLINED WITHIN THE PLAN:

Cloud Adoption

The financial plan is reflective of the organisations cloud adoption roadmap and cloud first approach to data hosting services for new applications and services. One of the key impacts of this change in supporting technology are shifts in expenditure items from Capital (CAPEX) to an Operating (OPEX) model.

A 'Product Centred' organisational structure

The move to dedicated multidisciplinary resource centred teams assigned to a specific product or service is supported within the financial plan. It is intended for this change to generate efficiency through improvements in workforce productivity and facilitate improved development pace and performance.

Digital Priority Investment

Over the planning term confirmed Welsh Government funded investments to support strategic digital priorities (such as Digital Medicines Transformation, National Data Resource etc) are included.

COVID-19

Development and ongoing service provision for supporting Test, Trace and Protect (TTP) and vaccines digital solutions are included within the plan for a 12 month period in line with Welsh Government funding assumptions.

RISKS AND OPPORTUNITIES

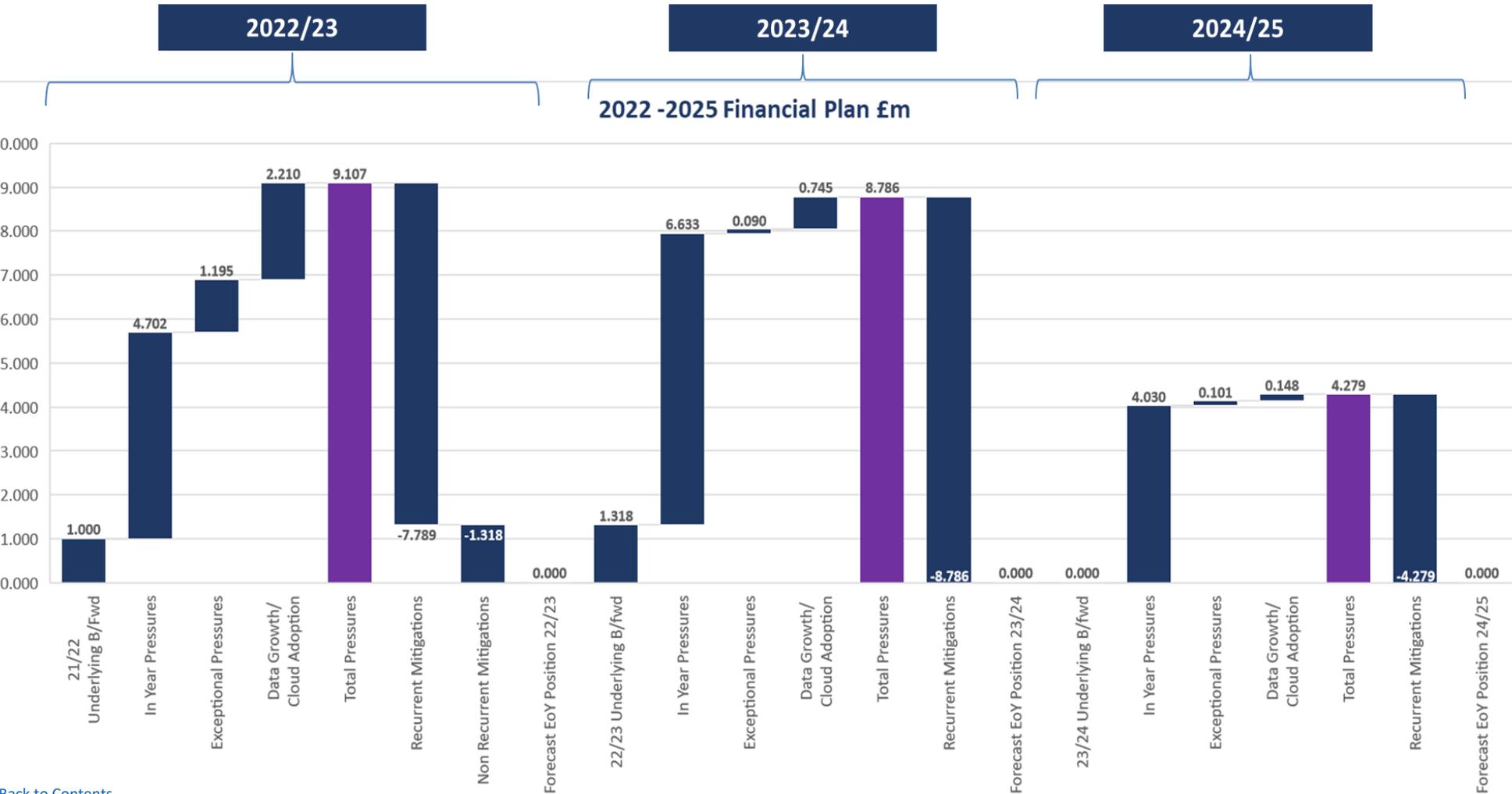
The organisation will continue to closely monitor any risks associated with its financial plan to ensure activity is delivered within financial resources and achieve a break-even position.

Financial risk is managed as an integral part of the overall Risk Management Strategy. The risks identified as part of the planning process surround themes such as assumed funding, increased energy costs and digital cost inflation. 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.

IMTP FINANCIAL PLAN REVENUE OVERVIEW

THE FINANCIAL STRATEGY

The organisation is required to break even on its revenue allocation – in order to achieve this a challenging mitigation plan has been constructed. Key to this is the construction and implementation of an effective funding flow mechanism to support the changing nature of development and provision of digital services.



Financial Plan

The organisation has identified new national/local inflationary and growth pressures assessed as £9.1m, £8.8m and £4.3m respectively. These assessed costs place a significant pressure on DHCW. In year pressures include pay and non pay inflation whilst exceptional items reflect recent significant increases in energy prices and national insurance.

Incorporated within the forecast pressures are additional costs as a consequence of new services resulting from a completed digital revised funding model which supports current and future service delivery models and growth.

To offset these increases DHCW has identified savings and efficiencies to be delivered via recurrent cost improvement programmes including the reduction of travel related expenditure which will contribute to a decreased carbon footprint. Whilst there is a significant non recurrent savings element in 2022/2023 this will be bridged via additional funding for growth and cloud adoption from 2023/2024 onwards.

IMTP FINANCIAL PLAN REVENUE SOURCE AND APPLICATION OF FUNDING

SOURCE OF REVENUE FUNDS

The source of the majority of the organisation's recurrent revenue income supporting core services is directly sourced from Welsh Government (circa 69% of the current financial plan for 2022/2023) 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 all Wales licensing, specific schemes/initiatives such as digital priority initiatives (DPIF) or services such as primary care IM&T Support). Non recurrent Welsh Government allocations have increased significantly over the last three years as a consequence of the pandemic digital response and additional support for digital priority investment.

| Source of Funds | 2021/22 £m | 2022/23 £m | 2023/24 £m | 2024/25 £m |
|---|----------------|----------------|----------------|----------------|
| Recurrent | | | | |
| Welsh Government - Core | 44.834 | 51.346 | 55.467 | 57.329 |
| Welsh Government - Primary Care IM&T | 14.802 | 15.220 | 15.448 | 15.564 |
| Welsh Government - Depreciation | 9.221 | 9.484 | 9.484 | 9.484 |
| NHS Wales - SLA | 12.958 | 9.784 | 13.894 | 15.915 |
| All Wales Digital Licensing | 18.200 | 23.912 | 24.747 | 26.876 |
| Other Income | 2.299 | 0.717 | 0.717 | 0.717 |
| Total | 102.314 | 110.463 | 119.757 | 125.885 |
| COVID-19 Response | | | | |
| Test, Trace & Protect | 5.912 | 4.282 | | |
| Vaccination | 5.550 | 5.976 | | |
| Other | 0.030 | | | |
| Total | 11.492 | 10.258 | 0.000 | 0.000 |
| Digital Priority investment Fund | | | | |
| Allocation | 14.441 | 31.536 | 26.962 | 23.030 |
| Total | 14.441 | 31.536 | 26.962 | 23.030 |
| Grand Total Funding | 128.247 | 152.257 | 146.719 | 148.915 |

APPLICATION OF REVENUE FUNDS

The projected application of funds to support IMTP deliverables are identified below.

| Application of Funds | 2021/22 £m | 2022/23 £m | 2023/24 £m | 2024/25 £m |
|---|----------------|----------------|----------------|----------------|
| Core | | | | |
| All Wales Digital Licensing | 18.817 | 24.364 | 25.229 | 27.411 |
| Information & Communications Technology | 15.695 | 17.888 | 19.986 | 20.625 |
| Application Development & Support | 15.352 | 16.200 | 20.966 | 23.357 |
| Primary & Community Services | 17.402 | 15.220 | 15.448 | 15.564 |
| Clinical Informatics | 9.238 | 10.322 | 10.597 | 10.827 |
| Depreciation | 9.221 | 9.484 | 9.484 | 9.484 |
| Finance & Business Assurance | 6.248 | 6.389 | 6.654 | 6.888 |
| Strategy & Engagement | 5.405 | 5.089 | 5.405 | 5.539 |
| Executive | 1.735 | 2.292 | 2.675 | 2.795 |
| People & Professional Development | 1.490 | 1.683 | 1.738 | 1.784 |
| Board & Governance | 1.361 | 1.532 | 1.575 | 1.611 |
| Total Core Allocation | 101.964 | 110.463 | 119.757 | 125.885 |
| COVID-19 | | | | |
| Test, Trace & Protect | 5.912 | 4.282 | | |
| Mass Vaccinations | 5.550 | 5.976 | | |
| Other | 0.030 | | | |
| Total COVID Allocation | 11.492 | 10.258 | 0.000 | 0.000 |
| Digital Priorities | | | | |
| Investment Schemes | 14.441 | 31.536 | 26.962 | 23.030 |
| Total Digital Priorities Funding | 14.441 | 31.536 | 26.962 | 23.030 |
| Total Allocation of Funds | 127.897 | 152.257 | 146.719 | 148.915 |

Notes:

- 21/22 Forecast £0.350m underspend
- All Wales licensing figure excludes Primary Care.
- Future allocations will be assessed annually in line with plan requirements.

IMTP FINANCIAL PLAN PLANNED CAPITAL INVESTMENT

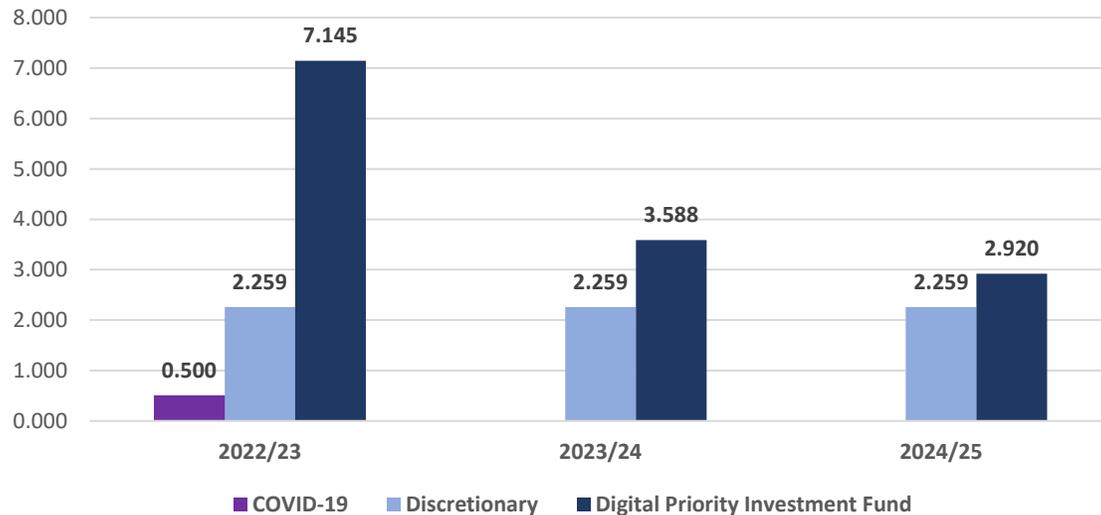
THE CAPITAL PLAN

The organisation's plan is underpinned by investment to support infrastructure lifecycle management, investments in digital solutions, and a general 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:

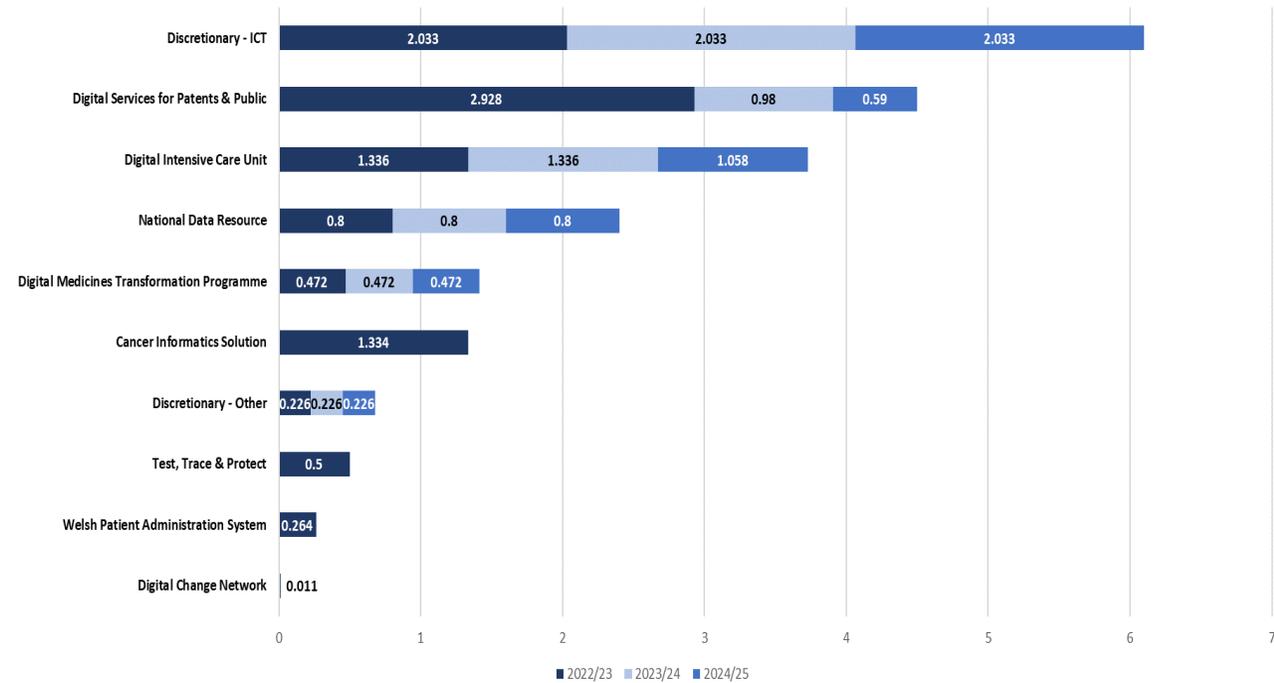
- Discretionary Capital Funding: Available for the organisation to allocate to support internally prioritised schemes
- Digital Prioritisation Investment Funding (DPIF) (single purpose funding subject to confirmation)
- COVID-19 response funding.

IMTP Capital Funding Summary £m's



The capital plan assumes funding of £9.9m in 2022/2023, £5.8m in 2023/2024 and £5.2m in 2024/2025 to support key plan deliverables. The plan supports the procurement of hardware and software and where applicable the cost of internally developed assets.

Scheme Investment 2022 – 2025 £m's



Throughout the year capital disbursements may be allocated to NHS organisations in line with conditions of digital priority funding projects (DPIF).

The organisation requires significant capital investment in order to refresh underpinning data centre services and networks. 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 and route map to cloud adoption, additional requirements will be submitted to Welsh Government via business cases .



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Our Workforce Plan

DIGITAL HEALTH
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2022-2025



| 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> | <p>Resourcing</p> | <ul style="list-style-type: none"> • Implement AI to maximise opportunities and reduce onboarding time • Reviewing opportunities for new roles and skill mix changes • Continue targeted recruitment plans for technical and other specialist roles • Reviewing and adopting new innovative recruitment and retention practices • Map roles to Digital, Data and Technology Plus Profession Capability Framework (DDaT) with clear links to career and development pathways • Continue working with University and local community partners to maximise recruitment |
| <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> | <p>Training and development</p> | <ul style="list-style-type: none"> • Succession planning and talent management for key roles • Development and roll out 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> | <p>Growing our own</p> | <ul style="list-style-type: none"> • Defining career pathways aligned to DDaT Plus framework, creating a Skills Hub to reskill/upskill roles to support retention • Implement 'trainee' and apprenticeship' schemes across the organisation, maximising opportunities to attract candidates from diverse backgrounds and experience • 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> | <p>Culture and Organisational Development</p> | <ul style="list-style-type: none"> • Defining DHCW culture and behaviours framework – in line with the vision and values of the new organisation which drives technology adoption and digital work • Improving our understanding of the 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> | <p>Technology and new ways of working</p> | <ul style="list-style-type: none"> • Implement Workforce Platform to analyse and predict workforce trends and strategic workforce planning • Explore integrated approach to manage an unintegrated workforce through the lens of workforce ecosystem • 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>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> | <p>Well-being and engagement</p> | <ul style="list-style-type: none"> • Develop and implement 'virtual' Well-being room • Continue to focus on managing sickness absence levels below the Welsh Government target • Explore ways to implement Robotic Process Automation to perform routine tasks in the workforce department • Continuing to contribute to <i>A Healthier Wales - Workforce Strategy for Health and Social Care</i> |
| <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> | <p>Diversity/Equality /Welsh Language</p> | <ul style="list-style-type: none"> • Support the implementation of the Welsh Language Standards • Develop recruitment and development programmes to reduce gender pay gap, ensure sufficient flexibility to support diversity in the candidate pool and address inequality of outcomes in terms of career prospects |
| <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> | <p>Changing the shape of the workforce</p> | <ul style="list-style-type: none"> • Workforce planning - identify the talent needs for DHCW's future goals, and establishing a strategy to ensure the organisation has the right mix of talent, technologies and right mix of different employment models to reach these goals eg Architecture, Cloud, Data etc. • Navigating demographic shifts - the challenges of managing a five-generation workforce with changing expectations and needs, as well as the accelerated speed of market shifts (eg, changes in user demand/expectations, organisation models) • Increase in Client Service workforce to support 7 day services |

AREAS OF FOCUS

The Workforce and Organisational Development team played a key part in many different stages of the initial Covid-19 response. Since Mar 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 for workforce will be to ensure we recognise a more significant change is required to keep pace with business demands and ensure that we have the right skills and resources in place to deliver our plan. Recruitment will continue to be a major priority, led by our recruitment taskforce, as we increase our workforce significantly in both numbers and skills set over next 3 years. 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 to successfully roll out key initiatives and Digital Priorities Investment Fund projects such as Microsoft 365, the Test, Trace, Protect (TTP) developments, and E-Prescribing.

Workforce planning indicates in particular, an increase in the request for analysts (14%), project managers (7%), software developers (7%), and architects (4%) which makes up 32% of overall known vacancies. In addition to these roles, there will be a requirement to support key strategic programmes such as Cloud, 'product' management and data science initiatives.

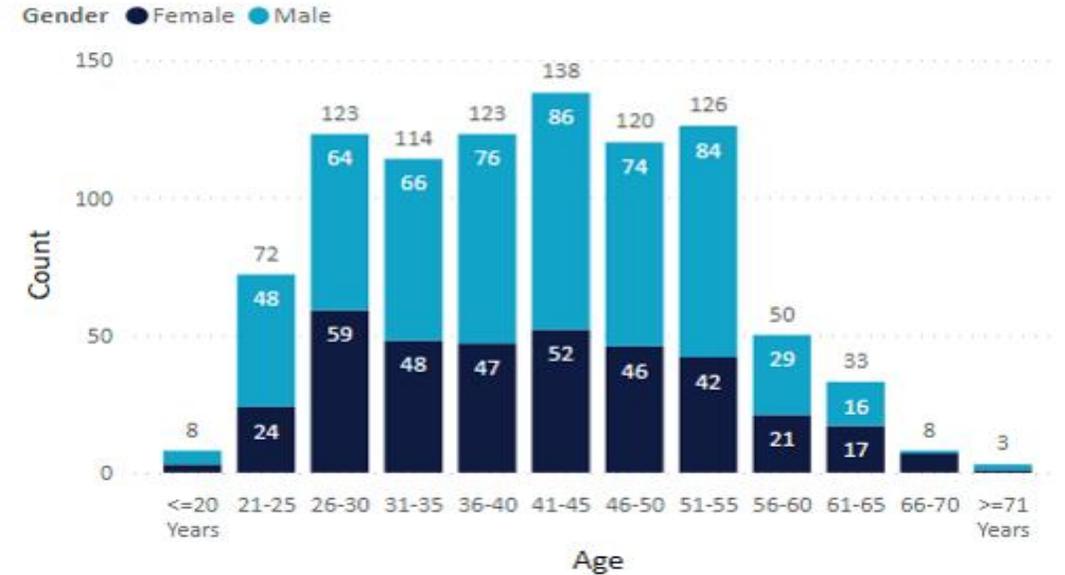
CURRENT WORKFORCE

DHCW currently employs 960 staff in post as at mid Mar 2022. Including vacancies, the total figure is 1084). We anticipate that this will increase further to 1312 WTE by Mar 2023 – our overall establishment capacity will therefore increase by approximately 21% in 2022/2023 in order to support the expanded digital investment requirements and Covid-19 response. The Covid-19 requirements will flex in line with Welsh Government policy and service requirements.

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.

Workforce Gender and Age Profile

Headcount



DHCW will align future workforce requirements against the outcome from the findings from All Wales Digital Professional Workforce Review identifying which roles are likely to increase and skills requirement. This will impact on wider workforce planning in terms of recruitment, upskilling and re-skilling.

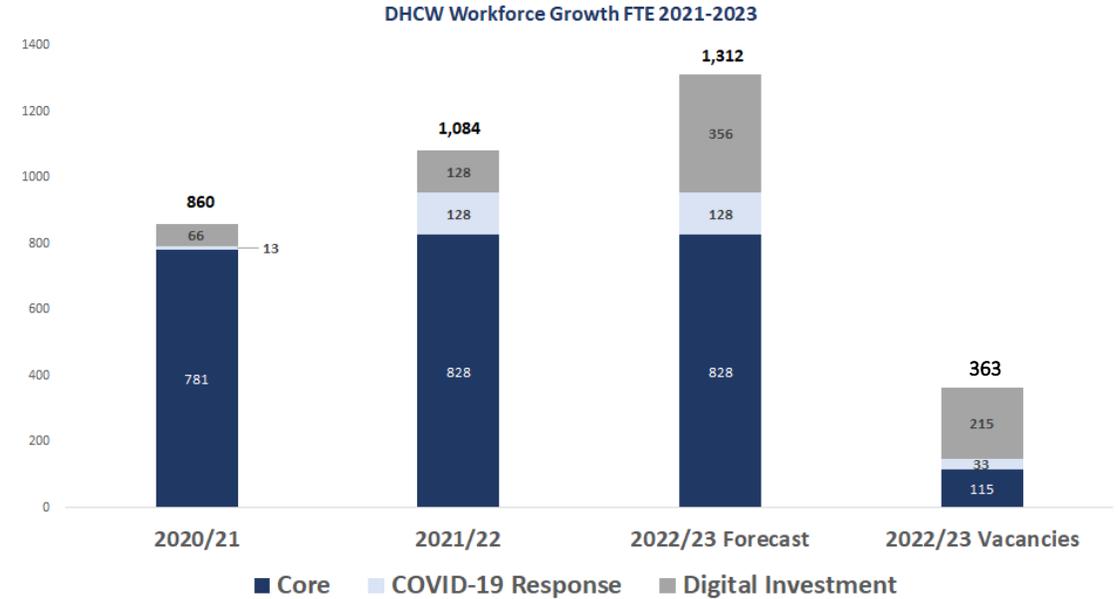
Workforce Growth

DHCW's recruitable workforce is projected to increase by over 53% in two years dominated by non recurrent digital development funding. This includes:

- Additional digital priorities investment fund (DPIF) priorities confirmed and funded such as ePrescribing and Medicines Management, Microsoft 365 Centre of Excellence and Digital Services for Patients and the Public
- Underpinning support of COVID-19 Digital Response
- SHA Board, Executive Team and related functions

Supporting the Growth via the Recruitment Task Force

- Nearly 340 vacancies have been filled since Mar 2021.
- An anticipated 228 extra staff are required in 2022/2023. When including expected establishment vacancies this brings the total recruitment requirement to 363.
- Work is ongoing with recruitment specialists (3 agencies contracted).
- Attendance will increase at Careers Fairs plus DHCW hosted fairs.
- Procurement strategies are in development to bring in external resourcing, assuming:
 - 30% vacancies filled through commercial strategy
 - 70% vacancies filled through DHCW initiatives including growing our own.



NB: The first 3 columns of the graph covers establishment numbers including vacancies. The final column looks just at vacancies to meet 2022/2023 resource requirements. For note – the staff in post total for 21/22 is expected to be ~960. *(The 1084 figure includes vacancies for 2021/2022.)*

Whilst core workforce is relatively stable, with low turnover, supporting the requirement for DPIF schemes and COVID response we anticipate will require significant growth over 2-3 years.



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Our Quality and Regulatory Compliance Plan

DIGITAL HEALTH
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2022-2025

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 governance framework and Quality and Regulatory Group forming part of the Audit and Assurance Committee.
- Planning - Annual Quality and Regulatory Plan and measurements - integrated across the directorates and supported by the internal audit programme.
- Improvements – The organisation has a strong culture of organisational learning and improvement with focus on measurements, analysis and controls.

Our internal Quality Framework is supported by 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
- BS10008 Evidential weight and Legal admissibility
- Service Desk Institute



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 a documentation strategy supported by 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 medical devices plan and strategy is being developed and focus will be around developing internal processes, systems and standards to enable compliance with regulation / legislation.
- Provide quality and regulatory support to all the standard leads with a harmonised approach through use of the quality portal and external audit.
- 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 training support.



BACKGROUND

The Health and Care Standards Wales 2015 set out the requirements for the delivery of healthcare in Wales at every level and in every setting. The standards have been designed to fit the seven themes of the NHS Outcomes and Delivery Framework and establish a basis for improving the quality and safety of healthcare services, by providing a framework to identify strengths and areas for improvement.

The seven themes collectively describe how a service provides high quality, safe and reliable care, centred on the person. Person centred care is positioned in the centre of illustration and the dependence on good governance, leadership and accountability is illustrated by placing them around the seven themes. The seven themes are (supported by an overarching Governance, Leadership and Accountability Standard) are:

- Staying Healthy
- Safe Care
- Effective Care
- Dignified Care
- Timely Care
- Individual Care
- Our Staff

Leads for each standard applicable to DHCW have been identified and an assessment is undertaken annually to assess compliance. This is subject to review by the relevant director lead and the Risk Management Group prior to submission to the Management Board and DHCW Committees.

Improvement actions identified from the self-assessment will be included within the DHCW Health and Care Standards improvement plan and monitored by the Risk Management Group with reports at mid and end year. A comprehensive update report will be provided to the relevant DHCW Committee at the end of the period with the next annual submission.



DHCW will work to improve their compliance with the following Standards over the coming year:

| Standard | Example Evidence |
|--|---|
| 0 Governance, Leadership and Accountability | Standing Orders and Standing Financial Instructions, Schedule of Board, Committee, Advisory Group and Management Board Meetings |
| 1 Staying Healthy 1.1 Health Promotion | Health and Wellbeing SharePoint pages and links to HEIW and All Wales resources |
| 2 Safe Care 2.1 Managing Risk and Health and Safety 2.4 Infection Prevention and Control 2.9 Medical Devices, Equipment and Systems | Risk Management Group Papers and Board and Committee Reports, Compliance Testing and Reporting, Medical Devices Group Terms of Reference and Implementation Plan |
| 3 Effective Care 3.1 Safe and Clinically Effective Care 3.2 Communicating Effectively 3.3 Quality Improvement, Research and Innovation 3.4 IG and Technology 3.5 Record Keeping | Wales Informatics Assurance Group (WIAG) Process and Clinical Risk Management Process, Welsh Language Standards Action Plan, Publication of Board and Committee Papers, Research and Innovation Group, Collaboration with Universities, BS10008 Certification |
| Dignified Care 4.2 Patient Information | This is a new area of focus for DHCW but will look at services provided under the Digital Services for Patients and the Public Programme |
| 6 Individual Care 6.2 People's Rights 6.3 Learning from Feedback | BS 76005 Standard Diversity and Inclusion Standard recertification, Equality and Diversity SharePoint page, Listening and Learning at Board, Stakeholder Engagement |
| 7 Our Staff 7.1 Workforce | BS76000 Standard Valuing People certification, People and OD Strategy, Training Plans, Skills Inventory |

We will review progress against the Health and Care Standards Improvement Plan via the Risk Management Group Work Plan



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Our Sustainability Plan

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2022-2025

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.

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.

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

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.

THE IMMEDIATE FUTURE:

Activities continue throughout Digital Health and Care Wales to deliver against our well-being objectives. Each year we review progress against activities within each objective, and identify additional activities where necessary. Some of the key activities for this IMTP 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, including delivering on the twelve portfolios and enablers that underpin this IMTP.
- Work with our delivery partners on the plan for Digital Services for Patients and the Public, including the NHS Wales bi-lingual app which will support the citizens of Wales to take a more active role in their own health and well-being.
- Deliver on our new Decarbonisation Strategic Delivery Plan.
- Undertake a significant programme of organisational development as part of our strategic approach to the new Special Health Authority.
- 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.
- Work with Welsh Government to complete the Digital Workforce Review across NHS Wales.

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



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Decarbonisation:

A clear and ambitious green recovery will be a key component to how we respond following the COVID-19 pandemic. The recently published NHS Wales Decarbonisation Strategic Delivery Plan demonstrates how NHS Wales can play its part in the recovery and its commitment to the Wellbeing of Future Generations (Wales) Act 2015, which directs us to consider long-term persistent problems such as poverty, health inequalities, and climate change.

DHCW have produced their own Decarbonisation Strategic Delivery Plan which describes how we will work to reduce our carbon footprint in line with Welsh Government strategy.

DHCW is in a unique position to contribute towards reducing carbon emissions across the wider NHS by providing and improving digital solutions across NHS Wales such as those allowing for digital transfer and storing of information and solutions which allow for remote consultation.

In recognition that the nature of our business activities may have an environmental impact; we are fully committed to decreasing this impact across the scope of our operations and the services we deliver.

Becoming more environmentally aware we are actively taking steps to measure and reduce our carbon footprint to improve sustainability at DHCW by implementing improvement opportunities, enhancing our communication, and placing a greater focus on how we dispose of our waste.

The Estates and Compliance team are currently responsible for defining the approaches and implementing the initiatives detailed within this delivery plan. Beyond that, the team also works to collate and maintain environmental performance data, produce environmental statistics and reports as necessary, analyse environmental performance data and improve environmental communications across the organisation. However, Estates and Compliance cannot deliver our decarbonisation aims without the assistance of key stakeholders both within DHCW and external to the organisation.



DHCW staff



Citizen of
Wales

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THE IMMEDIATE FUTURE:

Members of the Senedd endorsed the Welsh Government's declaration of a Climate Emergency in 2019. The NHS Wales Strategic Delivery Plan, which DHCW are fully committed to, responds to this declaration, and is aligned with Welsh Ministers goal of achieving a net zero public sector by 2030.

DHCW will be developing our approach to Decarbonisation with our Board to contribute towards this target by:

- Further enhancing our principles for reducing carbon in the six main activity areas identified by Welsh Government:
 - Carbon management
 - Buildings
 - Transport
 - Procurement
 - Estate planning and land use
 - Approach to healthcare
- We will undertake a full review of progress to date to determine the effectiveness of our actions.
- We will fully engage with Welsh Government and other stakeholders to share best practice.

We will implement the DHCW Decarbonisation Strategy and Plan and work to achieve Year 1 targets during 2022/2023

DELIVERING HIGH QUALITY DIGITAL SERVICES :

Our [Decarbonisation Plan](#) objectives relate directly to [Delivering High Quality Digital Services](#).

- Digital Health and Care Wales has assessed its baseline carbon footprint for 2019/2020. The gross carbon emissions for scopes 1, 2 and 3 were **19,858 T CO₂e** (net 19,652 T CO₂e). This includes the emissions generated from remote working, as well as the use of third party data centres.
- Procurement related emissions were the largest component (87%) of our carbon footprint, and the category with the most uncertainty. The plan to reduce procurement related emissions is being led by NWSSP through their own delivery plan. However, with our digital expertise, we acknowledge that we have a major role to play in assisting NWSSP to identify realistic reduction pathways for procurement of IT goods and services. We will work with NWSSP in 2022 to scope out the way forward so that numeric reduction targets may be set for subsequent years.
- Our Delivery Plan is focused on our office buildings and data centres, all transport (business, fleet and staff commuting) and activities (ie non-procurement activities). Working remotely is also included as it demonstrated significant carbon reduction savings in 2020/2021 and is a work model that DHCW can effectively adopt and commuting was a significant factor in our baseline review year.
- The Decarbonisation Pathway has been designed to achieve the NHS Wales 2025 and 2030 targets of 16% and 34% emissions reductions in the gross operational emissions. DHCW has forecast its non-procurement 'operational' emissions up to 2029/2030 to predict the impact of key actions in our delivery plan. DHCW have established a Decarbonisation Group with representatives from a range of areas, including estates, infrastructure, commercial services, finance and workforce and organisational development.
- We are currently developing an action plan to deliver annual energy reductions, installing additional EV charging points, improving our understanding of the NWSSP carbon accounting tool and exploring new sustainable ways of working.



DHCW staff

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THE IMMEDIATE FUTURE :

DECARBONISATION:

Our priorities (which cover buildings, transport, procurement and approach to healthcare as per the NHS Wales Plan) for the next three years include:

- | | |
|-----------|---|
| 2022/2023 | <ul style="list-style-type: none"> • Improve building management systems to achieve year on year reductions in emissions related to natural gas • Work with NWSSP to develop a strategy for low-carbon ICT procurement • Work with data centre providers to improve energy performance • Install further additional EV charging points • Trial EV vehicles for fleet use • Undertake staff travel survey • Reduce business mileage |
| 2023/2024 | <ul style="list-style-type: none"> • Estates rationalisation • Review EV opportunities for lease vehicles • Review data centre efficiency (using PUE measurement) • Further reduction of business mileage • Roll out Sustainable Procurement Code of Practice as provided by NHS Wales Shared Service Partnership • Work with ICT suppliers with regards to unnecessary waste packaging and single use plastic |
| 2024/2025 | <ul style="list-style-type: none"> • Review of travel plan • Review and update of low carbon ICT procurement strategy • Further estates rationalisation • Liaise with landlords to convert remaining buildings electricity tariff to REGO (Renewable Energy Guarantee of Origin) certificated supply • Continued remote working and promotion of home energy efficiency initiatives |



STRATEGIC DRIVERS

The foundational economy is built from the activities which provide the essential goods and services for everyday life, regardless of the social status of consumers. These include, for example, infrastructures; utilities; food processing; retailing and distribution; and health, education and welfare.

They are generally provided by a mixture of the state (directly or through funding outsourced activities); small and medium enterprise (SME) firms; and much larger companies such as privatised utilities or branches of companies such as the major supermarkets, who often originate from outside of Wales.

The Healthier Wales foundation economy programme 'looks at how and where we can procure goods and services that can help the Welsh economy and support our population. By spending our budgets in Wales, we will support Welsh companies that provide jobs and training in a local supply chain. Local supply chains are also better for our environment and more resilient to global changes'.

These key strategic drivers shape our response to the Foundational Economy:

- *The Well-being of Future Generations (Wales) Act 2015.*
- *A Healthier Wales*
- Procurement reform initiatives

WHAT THIS MEANS FOR DIGITAL HEALTH AND CARE WALES

- Using progressive procurement we will use our spending power to support the foundational economy, social value/community benefits and decarbonisation
- Exploring historical and planned procurement expenditure to identify contracting opportunities to capture interest of local business and addressing any barriers for SMEs to contract with us
- Working with our procurement partners in NHS Wales Shared Services Partnership to identify medium/long term localising spend categories
- Reducing the consumption of resources, by working with and encouraging our supply chain to use whole life costing
- Identifying those opportunities in the supply chain to address environmental, social and economic impact as a consequence of the goods and services delivered

STATUS

Our achievements to date include:

- Environmental policy and accreditation
- Sustainable Risk Assessments (SRA) are carried out on all procurement exercises with a value in excess of £25,000 and VAT
- Specific questions are built into procurement activity to take account of the foundational economy
- Resource based requirements specify % residing in Wales
- Contracts executed with local contractors for:
 - Consultancy - to support the roll out of Microsoft 365 across NHS Wales
 - Cleaning
 - Security
- Strategic contracts – resources resident in Wales , eg PACS (Imaging contract)
- Continued use of 'Sell to Wales' to stimulate SME interest in organisation's procurement requirements

NEXT STEPS

- Development of a Decarbonisation Policy
- Development of a Sustainability Policy
- Ongoing training for staff





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STRATEGIC DRIVER

Our Strategic principles are

Listening: we will strive to be a listening organisation

Transparency: we will welcome stakeholder input, make it clear and easy for them to contact us and we will commit to responding in a timely manner.

Open to influence and building consensus: we will actively seek views and there will be opportunities for stakeholders to influence elements of strategy, priorities, projects, and the way we deliver our services. We will strive to build consensus wherever possible.

Influencer: we will look to lead and influence others about our work.

Engaging the right people: we will work with those who may be affected by what we are doing including using stakeholder mapping to determine whose input to prioritise.

Planned and timely: our engagement will be planned and delivered in a timely and appropriate way.

Accessibility and being inclusive: we will provide any information needed to participate in engagement, in plain english and in a range of formats and languages.

Compliance: we will follow government requirements including legal, other guidance and duties including undertaking stakeholder engagement in alignment with our Welsh Language Scheme and NHS requirements.

Providing feedback: we will demonstrate how stakeholder inputs have informed and influenced decisions and actions.

Types of engagement: we will commit to using a range of digital and non-digital approaches to make commenting as easy and convenient as possible to reflect the needs and preferences of different stakeholder types.

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STATUS

The SHA board approved DHCW's stakeholder engagement strategy in Sept 2021. This will be turned into an action plan for coming years. The aims are to:

- Influence the work of our stakeholders
- Achieve a good level of awareness and understanding of our work among stakeholders
- Provide effective opportunities for stakeholders to influence our work
- Receive useful input from stakeholders and use it to adjust our priorities and improve our programmes, projects, and day-to-day delivery of services
- Explain where stakeholder input has made a difference and, where it has not, the reasons for this.

Current Forums: Executive Strategic Planning Meetings with Health Boards, Trusts and National Support Organisations, National Support Organisations Peer Group, Digital Leadership Group, attendance at National Programme Boards, Directors and Assistant Directors of Planning, Directors and Deputy Directors of Finance

NEXT STEPS

- Review existing meetings and forums to align with Stakeholder Engagement Strategy
- Support the new Independent Members Digital Network
- Agree a programme of work with the Patient and Public Assurance Groups (DSPP)
- Engage on future strategic directions (NHS Wales Digital Strategy refresh).
- Establish secure online forums for discussion around planning and priorities
- Publish the Stakeholder Engagement Strategy and Plan with any appropriate graphics (including Welsh language)
- Sign up to the Welsh National Digital Inclusion Charter

National Plan: A key objective is to develop joint plans with partner organisations. This can then be jointly updated and be viewed as a national shared plan.





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Our Deliverables

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STRATEGIC DRIVER

We need to engage users and stakeholders in the plans for our products and ensure they are fit for purpose and have a direction of travel in terms of functionality, technology, data and user uptake. There are several elements to this:

User research and design - The next cultural shift is towards using a **design system** approach (eg Gov.UK Design System) based on rigorous user research which brings together components, styles, patterns and code which teams can pick or use to achieve fast development with consistent appearance, colours, and position of design elements. This approach saves time and allows teams to focus more on the user need and experience. It also organises its content more centrally which would require dedicated support teams. Communities can then create and propose new components to consider. Service designers ensure the service is designed around customer research and understanding to achieve quick user interactions and a good user experience.

Product Roadmaps - Functional improvements are just one part of a much wider roadmap which needs to be viewed as part of the overall NHS Wales open architecture and the changing needs for our services. User uptake strategies, design processes, service delivery, technical improvements, movement to Cloud and data maturity need to be defined and options appraised to feed a longer term roadmap which can be shared with stakeholders and adapted in an agile manner as user needs and industry standards change.

Organisational development -The product approach is a different way of working and organising software development that differs significantly from the traditional projects approach. Projects are generally time limited with defined outcomes, the product approach recognises the need to maintain and develop applications through the life of the product (possibly through many iterations) until such time as the product is no longer deemed to provide value and is decommissioned or replaced. Although generally applicable to digital age development this way of working is especially suited to those who aim to drive organisations through a digital platform and is a recognised norm in the industry.

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STATUS

- Digital Health and Care Wales has over recent years moved away from waterfall development to an agile approach both for in house development and using external suppliers but as yet not moved to a full product and/or service design approach
- Significant workforce developments and training are needed to embrace this challenge and we are at the start of the journey. We are leading a national **Digital Workforce Survey** commissioned by Welsh Government which will look at the roles across our organisations and the new roles we need to embrace such as:
 - Content designer
 - Content strategist
 - Graphic designer
 - Service designer
 - Technical writer
 - User researcher
- Templates of Product Roadmaps outputs have been designed
- A consideration of revised **Product** organisation structure is underway following an early adopter which has been running for a year



NEXT STEPS

- Define 'Product' approach
- Developing an action plan from the findings of the Digital Workforce Review
- Development of roadmaps in collaboration with the service
- Early Phase Roadmaps
- Organisational re-structure plans





Organisational

| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
|--|--|-------|---|---|-----------|
| The next three years see acceleration of our drive to be the trusted digital partner for Wales. This sees a focus on our workforce development, sustainability plans, our quality agenda, supporting digital change in the health boards with a network of change agents and devising and implementing strategies for Cloud, Open Architecture and Data. Development of product roadmaps and the skills development of staff in user and service design is another focus area along with strong financial and corporate governance and implementing our engagement plan and Welsh Language Strategy. | | | | | |
| Business Continuity | | | | | |
| | Further enhance Business Continuity by expanding impact assessment work (3162) | | | | |
| Quality Standards and Regulatory | | | | | |
| Form a Medical Devices and Alerts Group - raise awareness and understand implications of the UK Medical Devices Regulations for our services (3416) | Continue to drive quality principles across the organisation including ongoing support of current quality standards and legislation (3428,3426) | | | Implement quality and regulatory processes for supporting end to end product lifecycle and release (3417) | |
| Document Management | | | | | |
| | Implement Document Management Strategy:3509 | | | | |
| Decarbonisation | | | | | |
| | | | Implement DHCW Decarbonisation Plan and meet initial targets (3448) | | |
| Estates | | | | | |
| Development of estates strategy reflecting New Ways of Working (3449) | | | | | |
| Service Management | | | | | |
| | Redesigned Service management system and policy (3533) | | | | |
| Digital Change Network | | | | | |
| | Building a Digital Change Network (3642) | | | | |
| Corporate Governance | | | | | |
| | Annual Governance Reports, Statements and Accounts (3748,3749,3750,3751) | | | | |
| | Develop Welsh Language strategy for recording and sharing requirements across NHS Wales Systems. Increasing the provision and range for Welsh Language in use across DHCW (3826, 3827, 3828, 3829, 3830) | | | | |
| Strategies | | | | | |
| | | | DHCW Strategy: finalise the organisational strategy (3075) | | |
| Engagement: Implement the DHCW engagement strategy including promotion of digital inclusion alongside our Digital Services for Patients and the Public Programme | | | | | |
| | Open Architecture Strategy: Develop plans for the 'Architectural Building Blocks' | | | | |
| | Product Strategy: review organisational structure and plan product roadmap approach | | | | |
| | Cloud Strategy: implementation | | | | |
| | Data Strategy: implementation | | | | |
| | Workforce Strategy: implementation | | | | |



Information Availability and Flow

| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
|--|--|---------------------------|--|--|---|
| The next three years are about taking forward the actions from the Digital Architecture Review by establishing 'architectural building blocks' (ABBs) which makes the move to an Open Architecture and enhanced data exchange between systems and driving forward the National Data Resource Programme. We will continue to enhance our repositories with new types of data and documents. | | | | | |
| Digital Architecture - Building Blocks | | | | | |
| Patient Identity and Demographics ABB (3650), Enabler ABBs (3675) and Primary Care Record ABB (3681) plan | | | | | |
| Application Programming Interface (API) Management Tool- making it operational and continue to deploy new APIs | | | | Continue to enhance and implement services, open integration service, APIs and repositories as Architectural Building Blocks | |
| Commission FHIR Façade (3857) | Enabling FHIR API via Façade | | | | |
| Encounters ABB (3656) and Clinical Documents ABB (3678) plan | <p>For information:</p> <p><i>Architecture Building Blocks (ABBs) are the underlying components and interactions that make possible the Health and Care Record in Wales. We have identified nine data specific ABBs that facilitate the record and allow that data to persist in a National Data Store.</i></p> <p><i>A further series of 'enabler' ABBs have also been identified that together allow interoperability between applications and each building block and include data and integration standards plus supporting technologies for messaging and Application Programming Interfaces (APIs) and their management.</i></p> <p><i>FHIR (Fast Healthcare Interoperability resources) is a standard which defines how data about health can be shared irrespective of how it is stored in systems.</i></p> | | | | |
| Diagnostics ABB (3664) plan | | | | | |
| Integration Hub ABB (3671) plan | | | | | |
| Reference Data and Terminology ABB (3685) plan | | | | | |
| Clinical Data Engine ABB (3688) plan | | | | | |
| National Data Resource | | | | | |
| Revised National Data Resource Programme Governance (3638) | Plan developed for National Data Strategy implementation (3639) | Deliver the Data Strategy | | Deliver the Data Strategy | |
| Procurement of national data platform (3640) | | | Commence delivery of the national data platform components | Migrating new and existing data services onto the national data platform | |
| Data Sets | | | | | |
| National data set work - see <i>Planned and Unscheduled Care, and Primary, Community and Mental Health Portfolios</i> for details | | | | National data set work | |
| Other | | | | | |
| Continue to populate the national test results and document repositories with national test results and documents, such as audiology, cardiology, genetics, English results (3738, ,3740,1418,3741,3742,3743, 3744,3755, 3746,3747, 3734, 3735, 3736, 3737) | | | | Continue to populate the national test results and document repositories with national test results and documents | |
| | | | Define a Master Staff Index (3723) | Welsh Clinical Portal single instance (lite) (3578) | Welsh Clinical Portal to open standards |



| Protecting Patient Data | | | | | |
|---|---|---|-------|--|-----------|
| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
| The next three years are about hosting the Cyber Resilience Unit which supports organisations in adherence to the Network and Information Systems (NIS) Directive, promoting the national IG framework and drive the cyber security agenda. | | | | | |
| Information Governance | | | | | |
| | Create IG Toolkit for other services accessing Welsh resident information including Prison Health and Hospices (3070) | Roadmap Development - NIIAS Solution Roadmap Development (3823) | | | |
| Develop and promote a national IG framework for Wales to enable safe and secure sharing of patient information which will include the approach to the Wales Accord for Sharing Personal Information (WASPI), an extended Information Governance toolkit, our auditing approach and supporting the Digital Services for Patients and the Public Programme in terms of identity management and access controls. | | | | | |
| Continue to provide Data Protection Officer support to primary care and secondary care | | | | | |
| Cyber Security and Cyber Resilience Unit | | | | | |
| Implementation of Cyber Service Improvement Plan (3697) | | | | | |
| Start re-procurement of a security incident and event monitoring tool (3696) | Ongoing audit and assurance from Cyber Resilience Unit - ie audit and support Health Boards in Wales and report our national adherence to the Security of Network and Information Systems (NIS) Regulations to the Welsh Government | | | Ongoing audit and assurance from Cyber Resilience Unit in line with regulatory changes | |
| Transference of the Cyber Resilience Unit from project management phase to business as usual and maintenance (3429) | | | | | |



| Sustainable Infrastructure | | | | | |
|--|---|---|-------|--|---|
| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
| The next three years are focussing on developing our Cloud Strategy - a major area of work not just for infrastructure but impacting on many disciplines such as architecture, finance and data flows. We will also move from our 2nd legacy data centre and continue to upgrade our legacy infrastructure and technical debt. | | | | | |
| Further develop our infrastructure strategy , eg hosting, operating systems, networking , authentication, application delivery, data platforms, monitoring, and infrastructure management (3727) | | | | | |
| Implement underpinning cloud requirements to support National Data Resource and migration of other DHCW services. (3483) | | Migrate services to cloud in line with product roadmaps | | | |
| Adopting Cloud First principles in procurements | | Planning for Cloud: engagement, scope definition, design specification for next phase of Cloud adoption(3668) | | | |
| Review second data centre provision (3481) | | Implement requirements of potential data centre (3482) and new network | | Implement requirements of potential data centre (3482) | |
| Legacy end of life work such as upgrading Server 2012 (3480,3602, 2491, 3693, 3707, 3708, 3709, 3710) | | | | Legacy end of life work | |
| Plan approach to GP third party applications (3605) | | Consider output from All Wales Infrastructure Programme regarding service related support tools (ITSM) (3600) | | | Complete GP desktop and server refresh (3612) |
| Design the replacement of WPAS infrastructure -on-premises (3724) | Deliver replacement WPAS infrastructure | | | | |
| Upgrade the server virtualisation solution (3711,3712,3713) | | | | | |

Digital Healthcare Professional Empowerment



Expanding the Digital Health and Care Record



Improving and expanding the content, availability and functionality of the Digital Health and Care Record, agnostic of health board and geographical boundaries and supporting evidence based decision making and connectivity using NHS Wales e-library and the Microsoft 365 suite

Digital Healthcare Professional Empowerment

| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
|--|---|---|---------------------------|--|-----------|
| Cancer | | | | | |
| Build Interfaces to Cancer Solution Phase 1, 2 and 3 National Architecture (2779)(2952) | | Initial implementation of Cancer Solution | | | |
| | | | | Develop Business Case for Systemic Anti-Cancer Therapy (SACT) solution (2229) | |
| Nursing | | | | | |
| Rolling out more functionality for our Nursing system to more sites, including introducing new standardised assessments and integrating with the clinical data repository for storing and retrieving allergies and adverse reactions (3180, 3181 and 3619) | | | | Increased uptake of digital nursing solution | |
| Diabetes | | | | | |
| Recording paediatric diabetes content in Welsh Clinical Portal (2612) | | Further uptake of diabetes solution with enhancements | | Increased uptake of digital diabetes solution | |
| Test Requesting, Mobile working, recording and availability of Clinical Information through the Welsh Clinical Portal | | | | | |
| Upload e-form for Emergency Medical Retrieval and Transfer Service (EMRTS) documents (3567) | Make Phlebotomy functionality available to further health boards (3622) | | | Welsh Clinical Portal single instance (lite) (3578) | |
| | | | | Decommission TRRR result repository (3566) | |
| Making tests result and clinical documents stored in our national repositories available to care providers across all settings | | | | Making tests result and clinical documents stored in our national repositories available to care providers across all settings | |
| Further roll out of electronic test requesting including radiology requesting | | | | Expand electronic requesting functionality, results notifications, and acknowledgements to all diagnostics disciplines | |
| Proof of Concept for Cardiology test requesting form phase 1 (2646) | | | | | |
| Welsh Clinical Portal mobile document view available for national use (3620) | Allergies and Adverse Reactions available on mobile solution (3618) | | | | |
| Establish the M365 Centre of Excellence (3820) | | | Maximise benefits of M365 | | |
| Knowledge Bases | | | | | |
| Ongoing procurement of clinical and other specialist knowledge resources and data bases via the E-Library Platform | | | | | |



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



Digital Services for Patients and the Public *(MS checked)*

| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
|-------|-------|-------|-------|-----------|-----------|
|-------|-------|-------|-------|-----------|-----------|

This year is driving forward our digital platform for patients and the public, with our suppliers and stakeholders. The approach will be an agile, user designed one where scope can change quickly to meet emerging demands and priorities. There is a list of initial priorities but targets dates will be confirmed closer to the time.

| | |
|--|--|
| Iterative development of the Patient App, with initial priorities including registration and authentication, consent model, and auditing. (3107,3643,3108, 3629) | Continued launches of the NHS Wales multilingual patient app with further functionality. |
| Other priorities are planned to include a diary, bookings, patient reported outcomes, medicines management, documents, seeing tests and results, PSA Testing, integration with other suppliers. Work will run closely with National Data Resource initiatives. | |
| Incorporating the services currently provided through My Health Online, with specific requirements informed by the user research undertaken in collaboration with Centre for Digital Public Services, into the new Patient Application. | |
| Develop an Accreditation Service to enable third party products to be linked to the Patient App and use the core services such as identification management and the patient record. This will create a more flexible approach where developments can be undertaken by a wide range of providers. | |



Delivering high quality technology, data products and services



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



| Public Health | | | | | |
|--|-------|-------|-------|---|-----------|
| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
| The next three years will still see DHCW supporting the Covid-19 requirements, particularly around the booster vaccinations, pandemic surveillance, and testing and moving more to a business as usual status. Public health initiatives which took a back seat to Covid-19 could restart and provide requirements for DHCW. | | | | | |
| Test Trace and Protect | | | | | |
| Respond to the highest priority Test Trace and Protect requirements | | | | Remaining Test Trace and Protect requirements and futureproof the service | |
| Continue to support the data and analytics requirements of the Covid-19 response and recovery of services | | | | Continue to support the data and analytics requirements of the Covid-19 response and recovery of services | |
| Strategic Review of digital response to Covid 19 (3834) | | | | | |
| Deliver requirements and enhancements of Covid-19 Patient Vaccination Booking applications, eg booster requirements | | | | | |
| Screening | | | | | |
| Respond to priority Public Health Wales screening requirements (3839) | | | | Respond to Public Health screening requirements | |

Planned and Unscheduled Care (1 of 2)

Strategic Objective

Delivering high quality technology, data products and services

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



Planned and Unscheduled Care

Qtr 1 Qtr 2 Qtr 3 Qtr 4 2023/2024 2024/2025

The next three years will focus on supporting the Outpatient Modernisation, Planned and Unscheduled Care priorities by linking more systems and data together, standardising that data and rolling out new speciality systems.

Rolling out Speciality Systems

| | | | | | |
|--|--|--|--|--|--|
| Welsh Emergency Department System available for implementation in remaining Health Boards (2603,2286) | | | | Emergency Dept System implementations (2605,3436,3437,3438,3439,3440,3441) | |
| Integrating the new Eye Care system with DHCW national Systems (3418,3419,3424) | | Integrating the new Welsh Emergency Dept System with the Welsh Ambulance Service electronic patient record so information is shared about A and E attendance with ambulance staff (3421) | | Supporting and enhancing speciality systems and deriving value from the data collected in them | |
| Integrating the Welsh Ambulance 111 call administration system (Salus) with the Welsh Care Records Service so a 111 episode summary is available to other clinicians(3538) | | Digital intensive care available for go live in first health boards (3081,3078, 3595,3597) | | | |

Outpatient Modernisation and Secondary Care Patient Journey

| | | | | | |
|---|--|--|--|---|--|
| Referrals | | | | | |
| Sending referrals between hospitals - New and Follow Up patient referrals - pilot (3608 and 3610) | | | | Ensure referral pathway efficiencies from hospital to hospital with our patient referral solution | |
| Roll out electronic advice between primary and secondary care | | | Deliver digital and data requirements of Outpatients Modernisation | | |

| | | | | | |
|---|--|---|--|---|--|
| Datasets | | | | | |
| Plan delivery of the Welsh Emergency Care Dataset across emergency departments (3719) | | Production of a Data Standards Change Notice for Welsh Ambulance Service Patient Care Record dataset (3717) | | Ongoing data standards work to ensure common recording of data to help understand the pressures and opportunities for the service | |
| | | Production of a Data Standards Change Notice for Patient Administration systems Outcomes (3720) | | | |
| | | Production of a Data Standards Change Notice for the Outpatient Modernisation Data Set (3721) | | | |
| | | Plan developed for ICD 11 coding implementation (3841) | | | |



Delivering high quality technology, data products and services



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



| Planned and Unscheduled Care | | | | | |
|--|---|-------|--|--|-----------|
| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
| The next three years will focus on supporting the Outpatient Modernisation, Planned and Unscheduled Care priorities by linking more systems and data together, standardising that data and rolling out new speciality systems. | | | | | |
| Outpatient Modernisation and Secondary Care Patient Journey | | | | | |
| Welsh Patient Administration System | | | | | |
| Welsh Referral Activity and Patient Pathway Enterprise Repository (WRAPPER) database available (1818) | Welsh Referral Activity and Patient Pathway Enterprise Repository (WRAPPER) functionality available (2251) | | Design Single all-Wales instance of Welsh Patient Administration System (1819) | | |
| <p>For information</p> <p>Welsh Referral Activity and Patient Pathway Enterprise Repository (WRAPPER).</p> <p><i>The plan for WRAPPER is to deliver an architectural component that will allow multiple systems across Wales to provide administrative data (spells, events, pathways etc) to a national, standards-based repository thus delivering a single view of a patients journey through the NHS in Wales (secondary care initially). WRAPPER will also have an Open FHIR API to allow other permitted apps to provide and use administrative data for patients.</i></p> | | | | | |
| Supporting Welsh Patient Administration Go live BCU West into single BCU instance structure (170, 1611) | Determine the Cloud hosting strategy for Welsh Patient Administration (3796) | | | Readiness Complete ABMU / Cwm Taf to Cwm Taf instance (2244) | |
| | Supporting Welsh Patient Administration System Go-Live in Velindre Cancer Centre - replacing administration functions of out of support Cancer system (CANISC) (1701) | | | Move BCU East into single BCU instance (2921) | |
| Powys / England Cross Border | | | | | |
| Set up a team looking at cross border projects (3647) | | | | | |
| New maternity System Options Appraisal (3445) | | | | | |



Strategic Objective

Delivering high quality technology, data products and services



Portfolio Objective

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



| Diagnostics | | | | | |
|--|-------|--|---|---|-----------|
| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
| The next three years will see us supporting new system procurements for laboratory management and digital imaging solutions. This will involve considerable work to decommission our existing systems and address legacy data issues. We will also deliver requirements for the Endoscopy Programme. | | | | | |
| Imaging | | | | | |
| Preparation work to move images from health boards into a national archive | | Start Data Migration of images into national archive (3646) | | | |
| | | Roadmap development of existing Welsh Radiology Information System considering its final releases, replacement, legacy data migration and exit strategies (2312, 2313,2925,3752, 3753) | | | |
| Support the new Radiology Informatics System Procurement (3511) - an end to end diagnostics radiology system | | | | New radiology solution - confirm supplier (3408) | |
| Other Diagnostics | | | | | |
| Work with NHS Wales Health Collaborative and new Laboratory Supplier to design integration with national systems, confirm validation, testing and infrastructure considerations, and work through the data transformation of legacy data and dual running (3463) | | | | | |
| Continue to add new types of results and reports into national repositories | | | | Continue to add new types of results and reports into national repositories | |
| Endoscopy | | | | | |
| Review the requirements from the National Endoscopy Programme as they emerge. (3453) | | | | | |
| Work with suppliers and health boards to get more endoscopy results into national repositories (3455,3456,3570) | | | | | |
| Other | | | | | |
| | | | Supporting the Genomics Partnership Wales in national genomics strategy work (3732) | | |



Delivering high quality technology, data products and services



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



Digital Medicines

Qtr 1

Qtr 2

Qtr 3

Qtr 4

2023/2024

2024/2025

The next three years will see the start of a major, complex programme of work looking at e-prescribing and medicines administration across multiple settings from primary and community through to secondary care. This includes patient access to medicines data and the development of shared medicines repositories.

E-Prescribing and Medicines Administration (ePMA)

Award Contract Framework(s) to enable health boards to buy Electronic Prescribing and Medicines Administration systems in Hospitals (1683)

Readiness work for early implementations of hospital E-prescribing and Medicines Administration system(s) (1687 and 1685)

Support the implementation of e-prescribing across Secondary Care in Wales

Shared Medicines Repository

Design a Shared Medicines Record (3459)

Proof of Concept to use the shared medicines record (3460)

Introduction of patient access to medicine information from primary, secondary and community pharmacy systems via the development of a patient app to help promote patient empowerment and self care - see Digital Patient Empowerment Portfolio / Digital Services for Patients and the Public programme

Electronic Transfer of Prescriptions (GP to Community Pharmacies)

Preparatory work for introducing the Electronic Transfer of Prescriptions between GP Practices and Community Pharmacies (3484)

Proof of Concept to enable the Electronic Transfer of Prescriptions between GP Practices and Community Pharmacies (3485)

Implement Primary Care electronic transfer of prescriptions

Community Pharmacies - see Primary, Community and Mental Health Portfolio

Hospital Pharmacy Stock Control

Ongoing releases for the Hospital Pharmacy Stock control system

| Research and Innovation | | | | | |
|---|---|--|-------|-----------|-----------|
| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
| Engage with key stakeholders to ensure clear understanding of R&I priorities (3592) | Complete the development of DHCW R&I Strategy and Policy (3594) | Delivery of the Research and Innovation Strategy | | | |
| Establish plans to address the R&I priorities to include a review of current R&I activities, projects and partnerships (3593) | | | | | |



Strategic Objective

Driving Value and Innovation



Portfolio Objective

Driving value from data for better patient outcomes and service planning



| Value from data | | | | | |
|--|-------|---|---|---|-----------|
| Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | 2023/2024 | 2024/2025 |
| The next three years will see further focus and progress on deriving value from data in all areas, particularly Covid-19 response and recovery, primary and community care and Value in Health. | | | | | |
| Primary Care Information | | | | | |
| Support, where applicable, the core clinical indicators and Quality Improvement initiatives within the Quality Assurance and Improvement Framework component of the General Medical Services (GMS) contract (3584) | | | | Ensure continued access for primary care and the wider system (where agreed) to GP data, for primary care and system recovery. | |
| Support the data extraction requirements and/or presentation of the results of national audits (3585) | | | | | |
| Under the guidance of the Data Quality System Governance Group, continue to develop the Primary Care Information Portal including additional reporting in respect of COVID-19 requirements (3587) | | | | | |
| Community Information | | | | | |
| Continue to progress the Information element of the WCCIS Programme (3588) | | | | Work to continue on agreeing data sets for community care including mental health | |
| Value in Health Information | | | | | |
| Continue to support the requirements of the Value in Health Programme (3591) | | | | Utilise our systems to support the Value in Health Programme | |
| Health Intelligence | | | | | |
| | | Publish catalogue of DHCW data sources available for secondary use (3824) | Review requirements of UK Statistical Authority Code of Practice and produce compliance action plan including a schedule of our official outputs (3825) | | |
| Continue to support the requirements of the COVID-19 response including new developments around data, analysis and reporting (3574) | | | | Continue to deliver the requirements of the COVID-19 response including new developments around data, analysis and reporting | |
| Bring together information streams and dashboards into one Health Intelligence Portal including, primary care, Covid -19, Value in health, cancer and unscheduled care data (3581) | | | | Bring together information streams and dashboards into one Health Intelligence Portal including, primary care, Covid -19, Value in health, cancer and unscheduled care data | |
| Support the requirements of the Cancer Informatics Programme, specifically around the CANISC replacement and Single Cancer Pathway work (3598) | | | | | |



GIG
CYMRU
NHS
WALES

Iechyd a Gofal
Digidol Cymru
Digital Health
and Care Wales

Appendix 1

Well-being of Future Generations Act

DIGITAL HEALTH
AND CARE WALES

IMTP

2022-2025

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* starts with our strategy, our mission, vision and values, and underpins the planning and development of all of our digital health and care services. Achievements in 2021/2022 include:

- The new Hospital Pharmacy stock management system has been rolled-out to every hospital in Wales, improving computerised dispensing, stock and data management.
- Provision of access to Covid-19 passes for the people of Wales, supporting people's ability to circulate in society in wider groups;
- Go-live of the Welsh Pandemic Record to capture people's Covid-19 testing and results data.
- Migration to a state-of-the art data centre which will be a springboard for cloud computing and will enable safer, more stable services.
- The Welsh Nursing Care Record is available in over 50 inpatient wards across Wales, revolutionising the way nurses manage patient information and allowing more time to care.
- Electronic test requesting delivers results to clinicians in ways that increase patient safety and reduce time and duplication.

THE IMMEDIATE FUTURE:

As a Special Health Authority 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.
- **Research and Innovation** – delivering research insights and innovation
- **Value from Data** – drive value from data for better outcomes and service planning.



Our IMTP has *A Healthier Wales* at its heart, including all the services we develop and support as trusted delivery partner for digital health and care services across NHS Wales.



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 system leader in 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. As services develop and take-up increases, the opportunities for better care naturally develop. Added to this, the services available to citizens to take a more active role in their own health and care are beginning to emerge in our plan.

- **Digital Services for Patients and the Public** is progressing, with Digital Application Partner and Digital Delivery Partner contracts being 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.
- The functionality and services currently delivered through **My Health Online** (which 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) will become available in the NHS Wales multi-lingual patient app as an integral part of **Digital Services for Patients and the Public**.
- **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. This helps to educate the public into understanding their role in making better service choices that support longer term sustainability of NHS Wales resources. Choose Pharmacy includes:
 - **Common Ailments Scheme** allows pharmacists to consult and provide medications for a range of common ailments.
 - **Discharge Medicines Review** provides a way for pharmacists to review medicines with patients when they are discharged back into the community, increasing safety by ensuring there are no interactions between prescribed drugs.
 - **Emergency Medicines Supply** enables pharmacists to prescribe medicines for pre-existing conditions when the GP surgery is closed.
 - **Emergency Contraception** can be prescribed to women and girls aged 13+ since 2011. 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:

The Digital Service for Patients and the Public (DSPP) Programme Board has approved four pathfinder projects (Primary Care integration, PSA testing, PROMs and 3rd party integration such as PKB/DrDoctor).

The programme has awarded the Digital Application Partner and the Digital Development Partner contracts to Kainos to develop an NHS Wales app. Kainos will collaboratively work with the DHCW NDR programme to develop interoperability and connections to those applications.

CHOOSE PHARMACY:

'Our aim is to make community pharmacies the first port of call for many patients. Whether it is for coughs, colds, earache, hay fever, conjunctivitis or head lice, over 700 community pharmacies in Wales are providing free advice and treatment without the need for a prescription and without having to make an appointment with a GP.'

Support for Community Pharmacies (2019)



We will develop our longer-term plan towards A Resilient Wales in 2022/2023.



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.

- This year our CEO, Helen Thomas, has presented on the approach and achievements of Digital Health and Care Wales at several conferences and events including a Tech-UK industry market briefing event and the Healthcare Finance Management Academy conference, the Team Wales conference and Value In Health week.
- Our strengthening relationships with universities and strategic alliance with WIDI aids the commitment to ensure students are given the opportunities through apprenticeships, internships, student and graduate placements, industry focused academic programmes.
- We are the leader for Digital Professionalism for NHS Wales and represent the organisation in Welsh Government and other NHS strategic forums. We regularly attend virtual events and several senior leaders have spoken at international and national conferences /universities and developed articles in published journals.
- Recent awards include 'Best Healthcare Project' for the Welsh Nursing Care Record; our CEO, Helen Thomas, was awarded Digital CEO of the Year and our Procurement Team won the COVID-19 Outstanding Response Award.
- We have continued to support Welsh Government's and NHS Wales' fight against the Covid-19 pandemic through TTP, with enhancements to the Testing and Contact Tracing platforms, and the Vaccination system, as well as rolling-out the Welsh Pandemic Record and the Covid-19 Vaccine Passport.
- We have continued to develop and deliver data and information on the TTP reporting datasets and associated dashboards, and significant work has been carried out to improve the efficiency of refresh processes for contact tracing and Covid-19 testing data, making it available to Health Boards, and other NHS Wales organisations through the Data Hub. We have also provided the data necessary to conduct the vaccine schedule.
- 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.



DHCW staff



NHS Wales
Colleagues



Higher
Education



Global
Citizens



Ministry of
Defence



Welsh
Government

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 is encouraging more cross-boundary working over the coming years.
- We are working with Welsh Government on a Digital Workforce Review to ensure that we have the skills and knowledge in the digital workforce to meet our future needs.
- We will 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 2021:



- 'Best Healthcare Project' at UK IT Industry Awards for the Welsh Nursing Care Record
- Digital CEO of the Year
- 'COVID-19 Outstanding Response Award – NHS and Healthcare Organisations' award

**As a Special Health Authority we continue to
develop our longer-term plan towards
A Prosperous Wales.**



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 have achieved and maintained certification to the **BS 76005 Valuing People** standard which demonstrates that our staff are valued and engaged to utilise their skills, capabilities, experience, behaviours and knowledge.
- We recruited 6 apprentices and our first NHS Wales Graduate Management trainee last year. In addition, we have introduced new roles in organisational development to progress the delivery of internal training programmes and 'growing our own' agenda.
- We are developing a **Diversity and Inclusion Strategy** and reviewing our internal forums.
- We are playing a key role in a **Digital Workforce Review** with Welsh Government to identify a framework for skills and competencies for the digital workforce in NHS Wales.
- We have increased the capacity of **Mental Health First Aiders** (MHFA) in the organisation and developed an internal MHFA network for peer support.
- A **Health Informatics Apprenticeship Framework Steering Group** has been established with the aim to develop a Health Informatics apprenticeship pathway at levels 2, 3 and 4 that is fit for purpose for healthcare in Wales.
- Over 300 of our staff are members of the **British Computer Society** and staff are encouraged to join the **Federation for Informatics Professionals** register of Informatics Professionals.
- We continue to develop our strategic partnership with **Wales Institute of Digital Information (WIDI)**. 35 employees are studying Digital Degree apprenticeships and 14 employees are studying level 3 and level 4 Health informatics courses. Two employees are undertaking the new MSc Digital Skills for Health and Social Care Profession.
- We have procured an **E-Learning platform** to give access to a wider framework of technical training to develop our staff
- We are continuing to develop **partnerships** with Universities across Wales to build our pipeline of future talent.
- We have developed and delivered a new **Management Development Programme** to enhance the skills and knowledge of our managers.
- Our **New Ways of Working Group** has developed options for the longer-term ways of working post pandemic; DHCW is leading the way to become an agile digital organisation where staff choose where they want to, aiding recruitment and retention.

THE IMMEDIATE FUTURE:

We will continue to promote and support initiatives which celebrate diversity and inclusion, developing new ways of attracting skills and ensuring opportunities for existing and future generations

To further increase awareness of the impact of socio-economic issues and how we can help to close the gap, we will undertake the following:

- Continue to work with WIDI and develop external partnerships 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.
- Implement DHCW Internships in 2022
- Develop a DHCW Leadership Model and the roadmap to support the implementation of the leadership programme.
- Develop and implement a maturity matrix for each Tier of management
- Accelerate recruitment activity to meet the talent needs of Digital Health and Care Wales.

We will develop our longer-term plan towards A More Equal Wales and the Socio-economic duty in 2022/2023.



DHCW staff



DVLA



IPO



Armed
Forces



NHS Wales
Students



BAME



Coach
/Mentor

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. Some of the initiatives we have been undertaking in this area include:

- Our programme of **coaching and mentoring**, working with **schools and Universities** and active **patient engagement** continues.
- Our new **Stakeholder Engagement Strategy** will provide focus to developing and reinforcing our strategic relationships. As part of this, we will continue to review and reset our priorities to align with Health Board and Trust priorities and pressures, engaging closely with our stakeholders from across NHS Wales, enabling us to start developing joint digital transformation plans with NHS Wales organisations. The engagement we are now having with NHS Wales partner organisations, staff and stakeholders is at the right level to influence strategic decisions on digital transformation, meaning that we are set up to participate, influence, build trust and confidence and execute system leadership.
- Working and collaborating with Health Education and Improvement Wales (HEIW) on national initiatives to support and deliver the objectives of **A Healthier Wales: Workforce Strategy for Health and Social Care (NHS Wales)** such as the NHS Wales General Management Trainee programme and the NHS Wales Staff Survey
- Reciprocal arrangements are in place with universities for our **staff to undertake and /or present at masterclasses** in the universities, and for lecturers from universities to undertake training sessions with our staff.
- As a member organisation of the **Charter for International Health Partnerships in Wales**, we continue to promote the concepts of global health and sustainable development. During the pandemic, we continued to support **Wales for Africa** by undertaking a virtual activity to fundraise to create a hub for learning.
- A short-term placement has been agreed for our **Graduate Management Trainees** to spend time with Welsh Government to assist with the response to Covid-19.
- Our Business Change Team continues to **support and educate front-line colleagues** across NHS Wales in the use and benefits of new and existing digital services. Of particular note is the support we have provided to roll-out of the Nursing Care Record. The Team has also developed a **Change Ambassador** programme to support and embed business change at grass-roots level.



THE IMMEDIATE FUTURE:

We will continue to promote and share the support mechanisms that have been embedded in the organisation, and will further develop those which are new to us or require different approaches.

- Re-launch of the new DHCW Health and Wellbeing group early in 2022
- Presentation to Local Partnership Forum on the proposed programme of work for DHCW in Africa for wider engagement and discussion
- We will complete the organisational status check for Gold Corporate Health Standard and apply for the new revised standard in 2022
- Post pandemic, revisit the Health Informatics Frontline vocational experience (Hi-Five) placements which enable our staff to experience work in other areas of NHS Wales, strengthening working relationships across Wales
- Re-introduce work experience placements, when restrictions are lifted.

We will develop our longer-term plan towards
A Wales of Cohesive Communities throughout
this IMTP period.



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 goodwill and a feeling of ownership regarding the language amongst those who do not speak it. We have appointed a Welsh Language Services Manager to lead in this area.

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. We have developed a Welsh Language Scheme and are 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:

- Our new Welsh Language Services manager will oversee the implementation of a Bilingual Skills Strategy across DHCW.
- 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 development of 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.
- We will continue to refine the Welsh language capabilities of our national systems to support NHS Wales organisations.
- We will continue to work 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.
- We have 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 assess and respond to the specific Welsh language requirements relating to digital systems that will be recommended by the Welsh Government More than Words Task and Finish Group.
- We will produce a bilingual NHS Wales App.

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 Mar 2020 we have continued to make 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 have developed a Decarbonisation Strategic Delivery Plan which is outlined in this IMTP. 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.
- Sustainable Procurement – we will work with NWSSP colleagues and continue to use the Sustainable Procurement Code of Practice.
- 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 update our Sustainability Action Plan every Qtr to ensure that consistent improvement is made against our targets.





Appendix 2

Our Key Systems by Portfolio

DIGITAL HEALTH
AND CARE WALES

IMTP

2022-2025

DHCW Portfolios and Services

