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Powys Teaching
Health Board

Digital First Strategic Framework 2023 - 2027

Version 4.0

15 June 2023

Foreword

We live in a time where the movement of information and expertise can be instantaneous through video conferencing, access to digital records, knowledge, and research. Our citizens are used to using technology and expect to be able to interact with services digitally, as they do with so many other aspects of their lives.

In Powys, we are keen to exploit these new opportunities as we know how problematic it is with our geography and rurality to provide services in a way that is easily accessible and convenient to the people we serve. Therefore, whether we directly provide, or commission services, good quality information is vital to contribute to our residents' health records. We also need to ensure that we can interact in similar ways with our English providers.

This Digital Strategic Framework provides us with an opportunity to not only maintain but to accelerate our efforts to ensure that what we do lives up to our ambition of Digital First.

Hayley Thomas

Interim Chief Executive

Digital innovation can be challenging to many and can be perceived as daunting for some of our staff members as well as our service users. The specific nature of our business, namely delivering Healthcare services to some of the most vulnerable in our society, creates a challenge to ensure that our digital offerings provide choice and accommodate the needs of all. It is critical that digital and clinical innovation go hand in hand, and this Digital Strategy and Transformation Plan is certainly ambitious in aiming to achieve this. It lays the groundwork for the introduction of new technologies that will enable the transformation of Healthcare for many years to come. It will support our staff to meet and exceed their goals as they relate to care excellence, it will leverage the broader Healthcare network, including primary and social care, as well as facilitating direct service users' participation in their own healthcare management.

Pete Hopgood

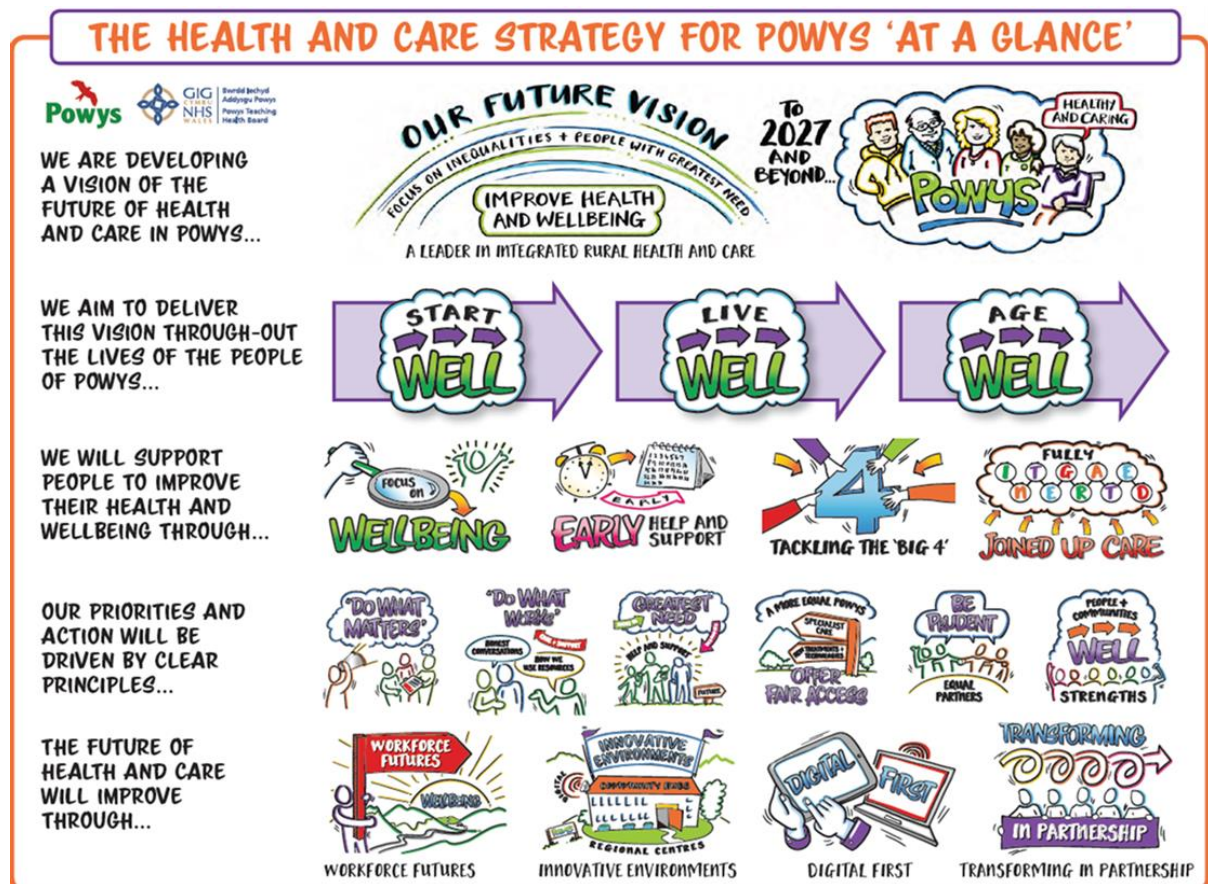
Director of Finance/IT

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Introduction

What is the Digital First Strategic Framework?

The Digital Strategic Framework is the first of its kind for Powys and marks an important stage in the Powys Digital Journey. 'A Healthy Caring Powys 2017 – 2027' first set out the ambition for 'Digital First' as an enabler for this shared, long term, health and care strategy, which formed the Area Plan overseen by the Regional Partnership Board.



This framework builds on the efforts made to date to create a 'Digital First' approach, working in partnership locally, regionally and nationally. It provides a framework for renewed ambition, leadership and delivery against a much changed and rapidly evolving context, in relation to technology, people and wider socio-economic and political changes impacting on the health of the population and the delivery of healthcare.

It is proposed that the delivery arrangements will be reviewed and reset to best support and enable this approach, which will involve a review of the current Digital arrangements and our existing bilateral 'Section 33' arrangement to determine the best way forward to ensure and enable each partner to respond most effectively to the complex and changing context across health and care and the more agile collaborations that will

be required, including those with Digital Health and Care Wales and alignment with the National Digital Health and Care Strategy.

Strategic Context

Significant challenges have been faced since publication of 'A Healthy Caring Powys', not least of which being the Covid-19 pandemic. This required agencies to refocus energy to deliver life critical, essential care and protection for the population. Whilst this meant that some work on the delivery of the strategy was paused or changed, it also accelerated some areas where that was supporting the public health emergency response. This is particularly relevant to 'Digital First'.

The last three years have seen major changes in the way digital is used in the healthcare and other sectors, with a shift to more flexible ways of working and modes of delivery of healthcare. There was a need to support remote delivery through digital, where that was appropriate and necessary for public health protection. As the Covid-19 restrictions and requirements changed, this has evolved into more hybrid ways of working. The scale and pace of these changes were driven by the immediate and pressing necessity of the response to the pandemic. The legacy of this is complex, with benefits in relation to greater agility and competency in digital use but also challenges in relation to the stability and security of systems and infrastructure.

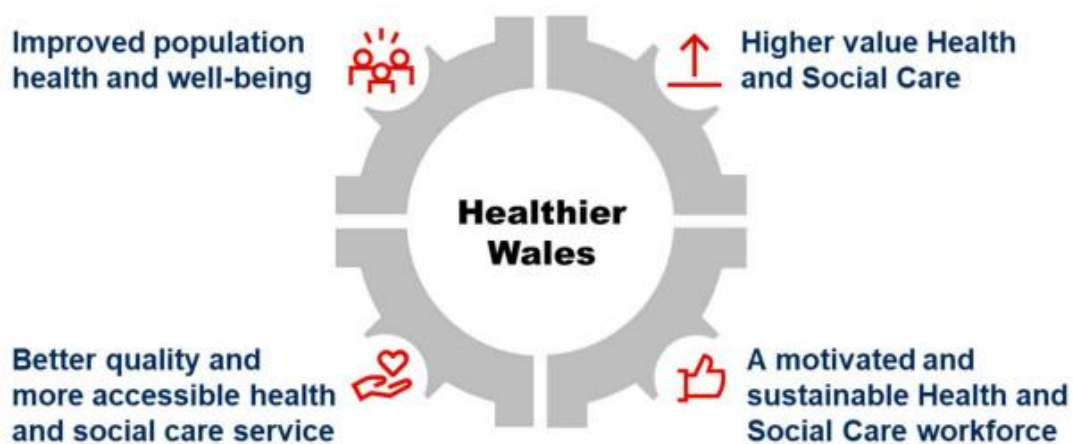
This remains a period of unprecedented challenge, locally as it is across NHS Wales and across the border. Recovery from the pandemic remains a key priority and is reflected in the Ministerial Priorities set out in the NHS Wales Planning Framework 2023 – 2026. The scale of this challenge is great, in the context of significant and ongoing socio-economic difficulties and global political events. The impacts are being experienced close to home, not only in relation to public sector cost pressures and supply chains but also for each resident in Powys, in terms of the cost of living increases and household incomes.

In this context, progress will not be achieved by traditional ways of working. As the NHS moves into its 75th year, it is important to celebrate those things that make it successful, whilst looking forward, even as far as NHS 100, to what will be needed to make healthcare sustainable, and meet the future needs of the population.

Digital First is more important than ever, in this final phase of delivery against the health and care strategy, in enabling the development of a sustainable model of care. An important programme of work has been initiated by the health board, working with partners in the Regional Partnership Board. To develop an 'Accelerated Sustainable Model of Care', aligning with the national ambition for 'A Healthier Wales' and key to the next phase of delivery of 'A Healthy Caring Powys'.

The Health Board is both a provider and a commissioner of healthcare for the Powys population who access services in both Wales and England, and the health board has demonstrated a strong track record in a 'whole system approach' to Digital First, with partners. Alliances will be key going forward and the refresh of the National Digital Health and Care Strategy will be important in achieving those ambitions where collective efforts are required at a wider regional and national scale.

This builds on the key steps taken within NHS Wales to date to respond to the parliamentary review into health and social care in Wales in 2018, which described the increasing demands and new challenges facing the NHS and social care, including an ageing population, lifestyle changes, public expectations, and new and emerging medical and digital technologies. In response to this review, in June 2018, the Welsh Government published A Healthier Wales: Our Plan for Health and Social Care. The ambition is for the health and social care systems to work together, to help people live well in their communities, meet their health and care needs effectively and provide more services closer to home, so that people only need to access a hospital for treatment that cannot be provided safely anywhere else. The plan describes four goals for the health and social care system in Wales, which is referred to as the Quadruple Aim:



It also set out how Digital teams and Clinical professionals together with simpler, easy to use technologies are key to achieving these aims and recognised the importance of business change in enabling fuller integration of health and care, setting out the priority for the NHS and Local Authorities to implement the Welsh Community Care Information System (WCCIS).

In 2019, Welsh Government commissioned an architecture review which set out several principles for the development of technology for the NHS in Wales. This was followed by the establishment of Digital Health and Care Wales to provide national digital services and to work with other

NHS Wales organisations, and NHS Trusts England in delivering technology that will transform the way that care is delivered.

Current State

A full analysis of the key planning parameters including an assessment of external political, economic, social, technological, legislative and environmental (PESTLE) and internal strengths, weaknesses, opportunities and threats / challenges (SWOT) can be found in the PTHB Integrated Plan and RPB Area Plan.

- The Covid-19 pandemic impacted on the wellbeing of the population and the delivery and health and care. There are challenges ahead, some of which are shared not only across Wales but the UK and Western Europe, as well as internationally. The evidence base is still emerging about the consequences of both the direct and indirect harms, compounded by other complexities such as cost of living increases and a challenging economic climate.
- The NHS Wales Planning Framework for 2023 to 2026 recognises that economic and financial outlook is extremely challenging. A set of Ministerial Priorities have been published (which are detailed in full in the PTHB Integrated Plan) and focus on the importance of relationships as well as focused work on key areas of healthcare access and delivery.
- Additional resource constraints have been introduced into the health and care system in recent years, given this complexity. A renewed focus on cost reduction and value-based healthcare is key to develop sustainable services.
- There has been significant change in the use of technology over the pandemic and this has created a complex legacy, with innovations in digital and increased uptake and confidence in its use, but also consequences in relation to the increased pressure on systems, infrastructure, and related security.
- Legislative changes notably the Health and Social Care (Quality and Engagement) (Wales) Act with a Duty of Candour and Duty of Quality, the establishment of a new Citizen's Voice Body, Llais and legislative reform in England, with the implementation of the Health and Care Act and the establishment of Integrated Care Systems
- The continued importance of other key legislative drivers and duties, including the Future Generations Act and Social Services and Wellbeing Act, and the overarching ambition set out in 'A Healthier Wales'.
- The Welsh Government Net Zero Carbon Status Route Map and Decarbonisation Strategic Delivery Plan published in 2021 build on existing legislation in the form of the Environment Act 2016 and Planning Act 2015.

- The work being done in partnership on the Accelerated Model of Care is particularly important in this respect, in setting out the both the case and the levers for change, in a highly complex and challenging environment.
- Intensive, focused efforts are required to continue to build a stronger understanding of what health inequalities look like in Powys and how that impacts on population wellbeing (more detail relating to population health and inequalities is available in the PTHB Integrated Plan).

Trends in Digital

A number of trends have been identified by Digital Health and Care Wales (DHCW) in their recently published Integrated Plan. DHCW note that the digital landscape is moving fast and has its own challenges, with growing cyber threats, supply chain issues, variable data resource availability and affordability, and legacy technology.

There are risks noted in relation to digital inflation, workforce, finance, supplier dependency and complexity in the current context. Nonetheless, there is also opportunity to use digital to drive efficiencies and improve patient outcomes. DHCW note several key trends which are important in understanding both the national and local context:

- The growing importance of data
- Digital services driving service transformation
- Moving to Cloud services
- Protecting against ever increasing sophistication of cyber attacks
- International technical and data standards
- Tackling a shortage of technology talent
- Cost optimisation – digital inflation and funding pressures
- A shift from capital funding to a recurrent revenue based model
- Organisations shifting from programme to ‘product’ based delivery models
- Continuous agility in delivering digital services, modular components and mix and match
- Automation, eg in testing
- Open architecture where data exchange is facilitated between public and private sector providers
- The increasing need to ensure robust, secure and solid digital foundations to enable successful digital delivery
- Patient empowerment Apps




Powys Insights

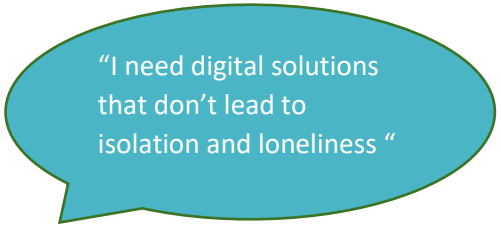
A full analysis of the current state has been carried out by the health board to identify the key insights for Powys (the full report is available separately).

In summary, the key issues and opportunities are as noted below:

- There are opportunities to deliver better care for the Powys population by maximising the use of technology and increasing digital confidence.
- Digital is critical to achieving the ambition to deliver more care closer to home, changing the nature of provision, as part of the Accelerated Sustainable Model.
- Working across Powys borders is key for our population, so it will be critical to strengthen alliances. This will support standardisation in interfaces across multiple systems to track the patient journey and improve value and outcomes for Powys residents.
- Our staff and services are enthusiastic about digital transformation and have made significant steps in the past few years, with a strong commitment to maintaining and progressing digital improvements.
- There is potential for further innovation including remote monitoring, virtualisation of services, use of artificial intelligence and self-management tools and resources.
- There is potential to transform the legacy platform and the way in which information is held and stored to a secure, resilient, easy to access fast solution which attracts greater scope for information sharing, business intelligence and agile working.
- However, there are significant issues in relation to ageing digital infrastructure and equipment at the end of its life. Digital exclusion remains an issue given the rurality of Powys, with mixed levels of confidence. Significant modernisation is still required to support a fully digital first approach, the pace of which is constrained by available resources and some supply chain issues.
- There are significant paper processes still in use and where electronic systems are used, there are high volumes of data across various systems, some with poor or no interoperability. Wi-Fi is not yet optimum and whilst improvements are planned, there is a recognised mobile connectivity signal problem amongst Mid rural Wales.
- There are challenges in relation to cyber security, attacks and privacy risks. In addition, there are frequent network and outage issues which require significant resources to deliver short term resolutions.



“I need websites/interfaces to be driven by patient need and experience”



“I need digital solutions that don't lead to isolation and loneliness “

- There is a need for training, upskilling, and deeper cultural change, to move fully to Digital First. There is a strong foundation for collaborative effort. Understanding how to use new tools effectively and how this affects the way services work will require standardisation of ways of working, shared learning and review of current practice.
- The Powys Regional Partnership and Public Service Board have both refreshed partnership plans, providing a longer term and 'intergenerational' view for these ambitions.
- Digital ambitions are noted in each of the three Powys Cluster Plans as well as being a critical enabler for transformation programmes in North Powys and Pan Powys.
- It is essential that digital is integrated into the planning of all model's of care so that all the 'digital opportunities' for ways of working are understood and considered. Digital needs to be an integral part of the planning and investment as it will be the forerunner of the change we're trying to implement across the HB as part of the Accelerated Sustainable Model
- The national Digital Health and Care Strategy is currently being refreshed, and there are a number of existing and evolving national programmes, brought together with oversight through Digital Health and Care Wales.
- It is essential that there are robust, safe information sharing protocols together with the right access to information for services and dual roles across all commissioned services, particularly those 'cross-border' partnerships within England and Wales.
- It is a significant problem the national Digital Health and Care Wales clinical systems are not interoperable with care providers for those residents of Wales needing care from cross border providers. This poses a clinical risk in terms of access to the patient history when needed most for informed clinical decision making.

Powys Principles and Outcomes

A set of principles and Outcomes (in the form of 'I Statements' were developed as part of the Health and Care Strategy. These have been reviewed in the light of the context and insights noted on previous pages and reaffirmed as fundamentally important in the current PTHB Integrated Plan and the RPB Area Plan:



- I am able to find and do what I need online, such as make or change appointments, pay my bills, self-assess or reach a doctor or consultant without having to travel
- I am helped to use technology and gain access to resources to allow me to be digitally independent

Alignment with PTHB Integrated Plan

This framework drives forward the digital priorities set out in the PTHB Integrated Plan published in March 2023 as a working document in recognition of the complexity and further development required in year.



Digital solutions are noted throughout the Integrated Plan, ranging from virtual consultations, digital cancer and maternity records, cluster developments and condition specific apps for self-care management.

The Digital Strategic Framework defines how, as an organisation, we will enhance the quality of community care provision for the people of Powys through digital innovation, now and over the next five years. This will be delivered in partnership with clinical services, and external alliances, supported by programmes of work that are performance measured through the Accelerated Sustainable Model and the Integrated Performance Framework.

This framework seeks to provide a challenge to how we do things and enable a sustainable model for change. To ensure that any changes can be sustained by the technology in place and delivered within a robust governance framework, it recognises that investment is needed in

different places to make this happen and that all our workforce needs to understand what we are doing and why. This change needs to be user driven to be sustainable and will not all happen at once.

What are we aiming for?

This strategic framework sets out how the health board will achieve our shared ambition to enhance the quality of care through digital innovation. Powys aims to lead as a digital exemplar in the community healthcare field, with a holistic approach to how we 'use digital'.

We want to enable the people of Powys (especially our workforce) to feel confident and safe in any new technologies we introduce. We aim to improve patient outcomes by using a joint digital/clinical approach to technology to support independence and promote well-being. The front line will have access to simpler easy to use tools to support the delivery of care and enable timely responses to get it right first time.

Using data driven insights will improve decision making and experience while transforming processes, interactions and decision making. We will facilitate digital inclusion and adoption, working collaboratively to act on feedback, offering targeted guidance, mentoring and support. This will involve exciting new and innovative approaches, supporting new ways of working between multi-professional teams, from data driven redesign of care pathways to the use of applications, artificial intelligence, wearable devices, robotics and voice assistants.

Our ambition is to work more efficiently within a safe and secure infrastructure, that future proofs in light of rapid changes in technology and interoperability. This will mean a redesign and upgrade of the core infrastructure. Given constraints, this will be prioritised and phased.

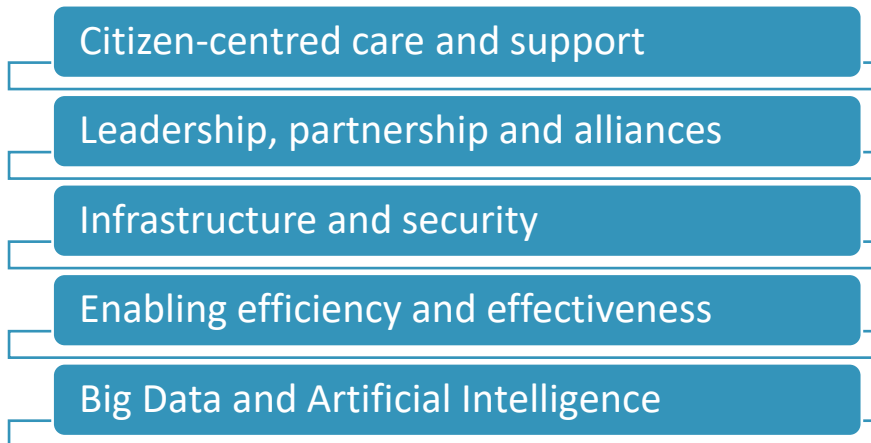
This will be supported by business change, strong governance and a robust framework for evaluation for quality, safety, and integrity. Collaboration with the people of Powys, partners and service leads on the design of Value-Based healthcare will underpin how we operate.

A **mission statement** has been developed for this Digital First Strategic Framework, through engagement with staff, users and partners:



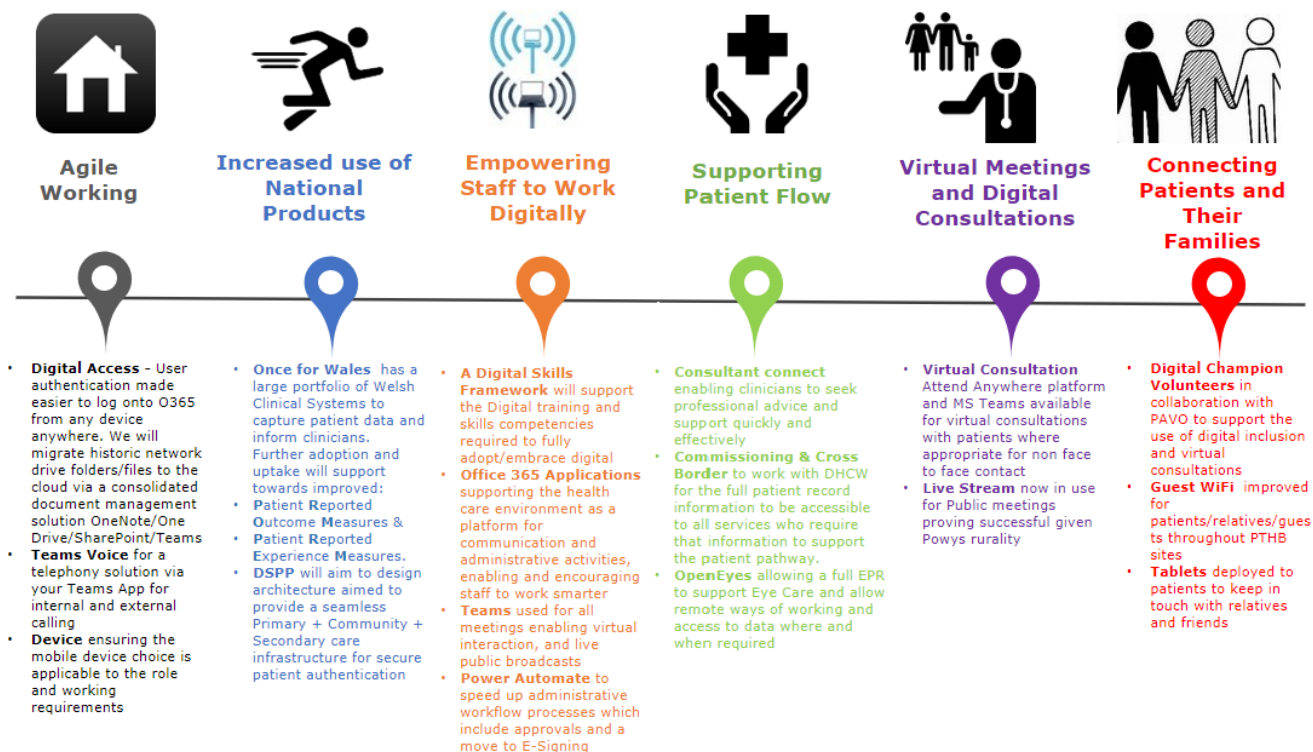
Key Themes

Five key themes were identified through engagement on the development of this framework, informed by consideration of the current state and context as noted earlier in this document:



This builds on the 'Digital Journey' set out in earlier plans:

Setting the Digital Landscape



OUR MISSION FOR 'DIGITAL FIRST'

- Empower individuals to care for themselves and take control of their own health and wellbeing
- Make Powys an area of digital innovation in community health and care
- Achieve a joined up, efficient and informed patient journey, based on secure, real-time patient data
- Enable our staff to have access to high quality information, equipped with the digital resources they need to deliver safe, high quality and efficient care

WILL BE DRIVEN FORWARD BY FIVE THEMES:

Citizen-centred care and support

Leadership, partnership and alliances

Infrastructure and security

Enabling efficiency and effectiveness

Big Data and Artificial Intelligence

...AND DELIVERED THROUGH:

- Digital Leadership, Alliances and Multi-Professional Team Working
- A Phased Portfolio of Programmes
- A new Target Operating Model

RESULTING IN:

- Whole population health intelligence
- Shared Care Record
- Digital Care Pathways
- Patient experience and journey tracking
- Self Help and Service Portal
- Apps, wearables, home devices
- Intelligent automation
- Interoperability of systems
- Standardisation of processes
- Shared decision making
- Flexible and Agile Estates Strategy
- Digital skills and capability
- Resilient and reliable data platform
- Greater cyber security and data protection



Citizen-centred care and support

The potential of cutting-edge technologies to support preventative, predictive, and personalised care is phenomenal, and our aim is to unleash this potential across our services.

Using more data-driven technologies to help diagnose conditions and to gain better insights into treatments and preventions that will improve and better manage the health of the population in Powys.

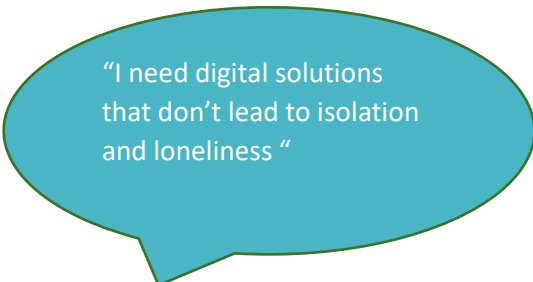
We want to ensure our processes and interactions are designed for our patients' needs. As professionals, clinicians, and service users, we need to be informed consumers of the tools and programmes we choose.

We need to understand what works well, what various platforms, applications and tools help us do better, and reassure ourselves that the governance structures around these products are strong enough to enable us to use them as part of a safe NHS service.


We need to consider the impact of digital technology on workforce planning. Digital technology is a game changer in terms of how we design and deliver services. The implications for what this means, and the knowledge and skills needed from our workforce to drive change forward and developing a community of practice learning network so people can interact and learn from each other.

We need a robust and speedy framework for evaluation for their application, quality, safety, and integrity.

What the staff told us:



"I need digital solutions that don't lead to isolation and loneliness"



"I need websites/interfaces to be driven by patient need and experience"

AS A PATIENT, CARER, OR FAMILY MEMBER

Improved access to and choices about healthcare

- I will have online options that improve and simplify access to the support I need
- I can book & change my appointments online
- I can access Welsh and English advice online
- I can have online consultations (but still have face-to-face if preferred)
- I can be signposted to other services and support in my local area (social prescribing)

Improved experience of healthcare services

- My experience of healthcare will be improved through digital options as it will take less time and be provided closer to home
- I will have improved communication with health care staff and can give feedback on the quality of my care

Improved experience of healthcare services

- I can access online resources and suitable home devices that allow me to manage and personalise my care
- I can better manage and personalise the care of someone I care for via digital opportunities/tools
- I can be signposted to other services and support in my local area
- I will be able to access devices and data that can advise on preventing ill-health, allowing me to be healthier and independent for longer

AS A PATIENT, CARER, OR FAMILY MEMBER

Tell us once

- I only need to tell my story once to a healthcare professional and not have to repeat it to others
- I am confident that information I am happy to be shared will be available to all those involved in my care

Personal Health Record

- I will have online access to my health record, or the record of someone I care for, and can input into it if I wish
- I have confidence that my personal information is safe and secure when shared across organisations supporting my care
- I have greater ownership of my personal Health Record

Deliverables

- Shared Care Record
- Self Help and Service Portal
- Apps, wearables, home devices
- Tools to capture & analyse patient experiences/journeys
- Patient & Clinical suite of apps
- Interoperability of systems
- 'Record Once, used many times'
- Whole population health data collection analysis

Leadership, Partnership and Alliances

We want to develop our capability and capacity, creating leaders that are digitally focused and growing the digital skills of our workforce to maximise efficiency and effectiveness. We will have in place a flexible and responsive workforce, digitally open to meet patient needs by ensuring:

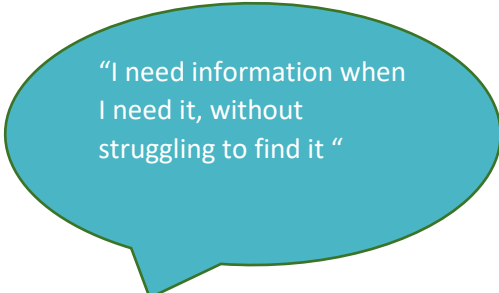
- Representing the diversity of our local population and bilingualism – we ensure all service areas provide a completely bilingual service and all staff are encouraged to develop their linguistic skills in both languages.
- Staff continually engaging in digital development regardless of role.
- Effective workforce planning ensuring the right technology is available to carry out their role.
- Take a proactive approach to developing our future workforce digital skills by engaging with partners, the local community and education providers
- Our staff will feel valued, included, and recognised

Each person should be given the opportunity to think about their job differently. To think how I would provide this service if it were a new service? What difference does access to information have on the treatment pathway for my patients? How can I use patient access to information to improve care? What can we do differently? How do I as a patient wish to receive health services and information about my health?

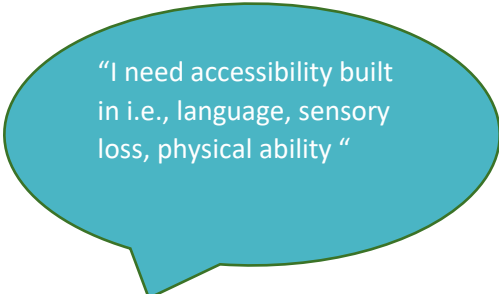
The Target Operating model will ensure digital staff work in partnership with clinical professionals to develop new working models combining clinical knowledge with wider organisational knowledge and experience of what digital tools can do and how they can help deliver services and the day-to-day role. We want Powys THB to be a place staff want to work and will stay through their career feeling supported and confident in how digital works for them and enhances their role to be easier allowing more time to care.

The development of a Board Level Chief Clinical Information Officer (CCIO) role will direct the seriousness and significance of Digital Leadership, development and investment but also act to create a multi professional team of clinicians working together and across the organisation on enabling clinical practice to adopt and develop digital and data capabilities.

What the staff told us:



“I need information when I need it, without struggling to find it “



“I need accessibility built in i.e., language, sensory loss, physical ability “

AS AN EMPLOYEE OF PTHB

Freeing up more time to care (reducing admin time, smarter data capture)

- I will have better access & guidance at the point of care
- Digital tools will reduce the time I spend on admin giving me more time to deliver care and support my colleagues
- I can be sign posted to other services and support in my local areas
- I will be able to easily capture data at the point of care (improving data quality)

The tools needed to do my job

- I will have real-time read & write access to patient records anytime, anywhere
- Our systems align with those of other health and social care organisations
- I will be fully mobile having access to apps via Office 365
- I will only need to update one system with my or my teams information
- I will have access to responsive ICT support and new equipment when needed

Sustainability and efficiency

- The Health Board will be digitally efficient
- The Health Board will use digital options to reduce its Co2 emissions (e.g. virtual working)
- Procurement standards will include single sign-on and interoperability requirements to improve internal efficiencies and external collaboration

AS AN EMPLOYEE OF PTHB

Digital Leadership and confidence

- My induction will give me excellent training and understanding of Health Board systems.
- I have opportunities to develop my digital skills and confidence, and the time to identify and test new digital ways of working.
- I will share good practice and encourage the use of digital tools for real time data entry
- I will feel I'm part of a 'digital by default' organisation where we place a high value in data, technology and user experience.
- I will be confident that the Health Board has robust cyber security arrangements and high levels of IT resilience to protect patients and staff records.
- I will have data protection training and identify it as key part of patient safety.
- I can securely access / share data via the interoperability of our systems.
- I will understand where to get data and support to turn that into knowledge to influence practice.

Deliverables

- Regular ongoing training and 'digital induction'
- Visible digital 'Leadership'
- Accurate and timely data
- Digital care pathways
- Reducing Physical Journeys
- Increase clinical space
- Procurement standards
- Clinical systems that are fit for purpose (interoperable) and allow mobile and flexible working
- Efficient data capture (intelligent automation)
- Efficient processes linked to PROMS/PREMS
- Cyber security training
- Data protection

Infrastructure and Security

We want to use digital capabilities and business intelligence in decision making to enable value-driven choices, working closer with our people of Powys, and making our information open and accessible wherever, whenever. Using information from interpreted data as a key corporate asset, will enable improved decision making and resource allocation.

We aim to:

- ✓ Create performance dashboards to monitor performance.
- ✓ Integrate data with partners and solutions.
- ✓ Improve our data integrity, ensuring high quality data.
- ✓ Embed predictive analytics in our reporting systems.
- ✓ Provide data that supports improved decision making.
- ✓ Use information to put resources where they are most needed.

Public cloud first – we get the resilience and backups of the most cyber-aware and heavily invested accredited suppliers.

Building a robust data storage solution using modern data technologies will ensure the highest digital standards are adhered to. A multi-layered Data Governance framework will be built to ensure that the flow of data is mapped, from start to finish, while ensuring compliance with relevant legislation and data storage best practices. This will ensure that data is available to those who need it, at all levels, while ensuring that the use of that data is monitored. What the staff told us:

We want to provide a fit for purpose, robust and safe infrastructure to support digital capability and an agile workplace, while ensuring it is cost effective. We deserve software and hardware that helps us meet our goals, and we should adhere to these architectural principles to achieve this.

We will adopt, monitor and maintain industry and government endorsed cyber security standards and protection , including keeping our software, networks, and systems up to date so that we can maintain the confidence of our users and we are assured we are able to build and buy securely.

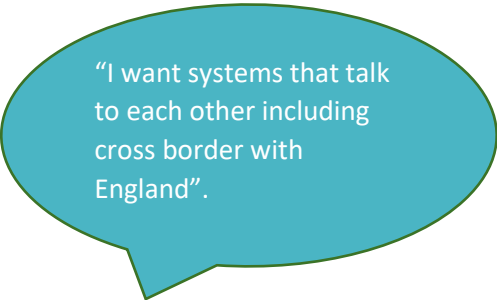
Utilise modern and secure browsers: we should move to a mobile first approach and make the same digital services easily accessible from all mobile devices, i.e., phones, tablets, laptops, and assistive technologies like screen readers. We recognise that our users across digital services are in a variety of contexts and technology like mobile alerts and responsive design can be critical to supporting the workforce in their roles.

We will benefit from continual security and functionality improvements that come with 'evergreen' ecosystem of modern browsers and web technologies.


We will aim to conduct a series of readiness assessments on modern digital technologies to support on demand delivery of digital resources over the internet i.e., cloud, application usage for efficiencies, and device reviews focussing on leading a workforce that is paper light, mobile and constantly challenging for improvement.

We need to work smarter and support the spread of innovations that work. While there is a plethora of projects able to attract investment, if proven, investment and support is not there to help that product reach the next level. We need to identify those technologies that have already shown potential in health and business processes and invest in them to take them to the next stage.

What the staff told us:



"I want systems that talk to each other including cross border with England".



"I need our system to be mobile and accessible from handheld devices"

POWYS HEALTH BOARD WILL

IT Infrastructure

- ❖ Upgrade and improve the IT infrastructure, so that the maximum benefit of digital opportunities can be realised.
- ❖ Develop the capabilities of our systems and services to tolerate inevitable failures and environmental issues through robust business continuity and disaster recovery processes.
- ❖ Ensure collaboration with All Wales Infrastructure programme and other nationally driven programs.
- ❖ Facilitate increased agility and speed of adoption of new local and national services.
- ❖ Update and improve Wi-Fi provision at Powys Sites – providing greater coverage and more secure and reliable access for patients, staff and partners.

Devices refresh

- Implement a rolling refresh program for workforce IT devices, providing staff with IT equipment capable of dealing with the demands of modern application and systems required, and taking advantage of the latest security capabilities.
- Provide sufficient and appropriate devices to enable meet current and future demands for a workforce better equipped to take full advantage of digital ways of working

Data Centre servers & Storage

- Provide new resilient, reliable and expandable capacity to meet the growing needs of the organisation.
- The Data Centre will be physically and Cyber secure, protecting the Health Board's information assets alongside a wider defence-in-depth cyber controls.
- Develop a cloud first approach where appropriate.

POWYS HEALTH BOARD WILL

Interoperability – access to information systems & applications

- Work with current and future suppliers to implement single sign-on capability to core systems
- Implement self-service support for the workforce, reducing time spent by staff seeking advice and assistance for common issues or tasks e.g. self-service password reset

Deliverables

- Provision of a secure, resilient, and reliant infrastructure
- HIMMS level Assessments
- Provide devices for staff that meet their needs and work style and are modern, efficient, and reliable.
- Install and commission new IT data equipment.
- Migrate services to new Data Centre
- Ensure reliable, effective, and high-speed access across all HB sites
- Delivery of clinical and patient portals
- Provide a Digital Support service for all technical related queries / issues
- Provide skilled capability and capacity to maintain and continuously improve the infrastructure foundations required as technology and demand evolves
- Resolve and support knowledge gaps.
- Communicate hints and tips
- Adopt common data standards to ensure Interoperability between IT systems

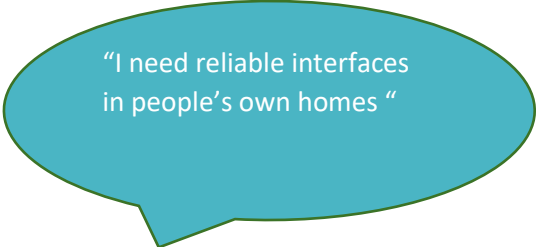
Enabling efficiency and effectiveness

We want to work with stakeholders to create Digital Hubs i.e., internet café, library, educational setting across Powys to connect and support health care delivery, patients, and partners in order to:

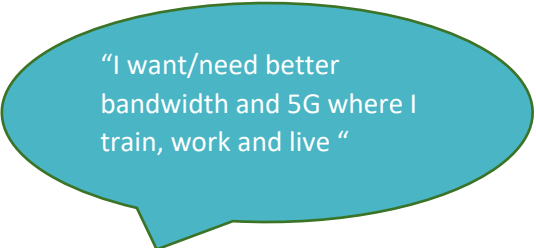
- ✓ Ensure where care is delivered it will be digitally enabled and accessible for all.
- ✓ Create virtual spaces and online waiting rooms.
- ✓ Help those with limited or no access to Wi-Fi to connect to our services
- ✓ Develop digital pathways to encourage and enhance self-care.
- ✓ The number of missed appointments decreases through effective digital tools.

Putting in place the right infrastructure so hospitals, GP's, pharmacies, community and social services can join up people's care and reduce the need for patients to repeat their medical history or care needs to different people, where systems can talk to each other safely and securely. Digital services must ensure that people's needs are met and understood, whether that be a website or service area.

What the staff told us:



"I need reliable interfaces in people's own homes"



"I want/need better bandwidth and 5G where I train, work and live"

To fully maximise technology requires skills and confidence within the workforce. The Topol Review (2019) explored how technology would impact healthcare, specifically and concluded that the NHS should focus on 'building a digitally ready workforce that is fully engaged and has the skills and confidence to adopt and adapt to new technologies in practice and context' [Topol Review](#)

As well as having the skills and confidence to engage in a digital workplace, developing the workforce digitally will act as a catalyst to realising the benefits of digital technologies and improving outcomes more broadly.

Opportunities to develop digital skills and capabilities are already available via the Health & Care Academy, and in partnership with Health Education in Wales and this includes support training and development in new and more effective technology rich ways. This framework will ensure work with healthcare professionals to become highly digitally capable by mandating the appropriate level of digital literacy for users of digital systems including ethical and patient safety considerations.

Sufficient capacity for transformation also needs to be included in workforce plans and solutions, to enable Powys THB to have the capacity to transform. It is vital to give staff the time and space to think about, prepare and engage with digital system projects. This will help influence the service requirements for digital systems and aim to make technology easy and simple to use, and adequate for staff to carry out their professional role without being disruptive to service delivery.

User research and engagement is fundamental to drive the strategic direction for digitally delivered health care services and particularly Value-Based healthcare.

Exploring opportunities to test theory, academically research, engage with people through focus groups, surveys to improve on what digital technology we have available for our staff and patients, and what the demand is using market research to review what our people of Powys want and need, and how they can get involved.

Every service must be designed considering the public, the clinicians, practitioners, business partners and charitable organisations such as the voluntary sector. Services co-created and designed with users and their needs through engagement, research and development which will facilitate confidence and buy in and people will get the right outcome for them, and prove more cost effective.

Innovators must be supported, and we will commit to facilitating and building a collaborative ecosystem for their ground-breaking discoveries. We will put collaboration and co-development at the heart of innovation in health and care.

POWYS HEALTH BOARD WILL

Research & Collaboration

- Actively collaborate with UK based and international academic and research institutions / networks to develop and apply pioneering new methods to solve established or emerging problems
- Open appropriate access to research related software to conduct required levels of statistical and qualitative analysis making available e.g., remote log in, and remote editable access within SharePoint

Whole population insight (prediction and prevention)

- Use machine learning, intelligent automation, advanced analytics, data science, risk stratification (identifying high-risk people and groups)
- Use population health management analytics will help to identify and prioritise healthcare planning and decision making

Commercial development

- Explore options for strategic relationships across industry and academia - focused on innovation to improve health outcomes.
- User digital opportunities as a 'common ground' for partnership working focused on collaboration and integration

POWYS HEALTH BOARD WILL

Data-rich decisions

Deliverables

- Academic and research collaborations
- Improve access to research software and systems.
- Accurate and timely data
- Clear pathways
- Clear understanding of flow with alerts and triggers
- Development of outcomes tracking and reporting
- Explore new commercial relationships focused on healthcare innovation.
- Install and commission.

Value based Healthcare

- Joined up services, information sharing
- Report against patient reported outcome measures
- Report against patient experience outcome measures
- Work locally, regionally and nationally with Health organisation partners to deliver efficient and effective services
- Remove professional silos

Deliverables

- Share information securely
- Implement robust business change and benefits realisation structure, policy and process
- Academic and research collaborations
- Improve access to research software and systems.
- Clear understanding of flow with alerts and triggers
- Development of outcomes tracking and reporting
- Explore new commercial relationships focused on healthcare innovation.

Big Data and Artificial Intelligence

A local data resource (LDR) is being developed to create a new data platform that brings together data about health and social care services across Powys. It will make data easier to access, share and analyse so that users, whether they are health and care professionals or patients, can make informed decisions. This will better enable Powys Teaching Health Board to improve patient experience and service outcomes. The LDR will provide improved analytics capability and will enable better decision making for clinicians, operational managers, data scientists and other users.

A national data resource (NDR) driven in partnership with Digital Health and Care Wales, Welsh Government and All Wales Health Boards and NHS Trusts, to improve the way data is collected, shared and used across the healthcare organisations in Wales and will drive forward the interoperability of health and care systems.

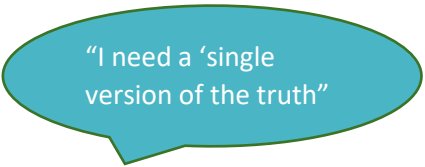
Artificial Intelligence (AI) and 'big data' analytics of healthcare data will be an enabler and support to the delivery of the organisation's strategic objectives. The abundance of information and opportunities will improve quality, safety and cost efficiencies and further improve productivity, services and care. Implementing advanced technologies and AI based tools to directly improve the data analytics within the organisation will deliver valuable insight that is both scalable and adaptable.

To briefly state, data analytics will help with:

- Improving patient care and outcomes
- Supporting health management
- Help make informed commissioning decisions and develop policies, practices and services
- Improve and create patient centric analysis

The key to this is obtaining high quality data, that is accurate and consistent. Providing high quality data will help enhance patient care and improve decision making not just locally, but regionally and nationally.

What the staff told us:



"I need a 'single version of the truth'"

POWYS HEALTH BOARD WILL

Data-rich decisions

- Improve the collection, quality and triangulation of diverse data sources (data sets, trials, records, patient feedback) to provide greater insight with which to make decisions
- Improved operational system, infrastructure and access for front line staff to do their job
- Routine operational data reported through key performance indicators
- Achieve interoperability of systems and data sets
- Continue to secure confidentiality of patient records by improving early anonymization of information ensuring that data remains non-identifiable across systems.

Whole population insight (prediction and prevention)

- Its capabilities to predict and/or improve early diagnosis to prevent or slow the onset of ill-health and reduce the future need for more urgent care. Focus areas will include working with young people to improve school based mental health wellbeing support
- Use machine learning, intelligent automation, advanced analytics, data science, risk stratification (identifying high-risk people and groups)
- Use population health management analytics will help to identify and prioritise healthcare planning and decision making

POWYS HEALTH BOARD WILL

Using Data to improve the health of others

- Know and be assured that only anonymised health information is used to improve care quality
- Know that health data will be used to predict and prevent ill-health, address needs and inform clinical decision-making
- Use its capabilities to predict and/or improve early diagnosis to prevent or slow the onset of ill-health and reduce the future need for more urgent care.
- Use machine learning, intelligent automation, advanced analytics, data science, risk stratification (identifying high-risk people and groups)
- Use population health management analytics will help to identify and prioritise healthcare planning and decision making

Deliverables

- Provision a Secure, resilient, and reliant data platform using the latest technologies
- Adopt common data standards to ensure Interoperability between IT systems
- Provide Information as intelligence.
- Develop integration of systems to be able to share data between them, improving workflow efficiency and interoperability
- Accurate and timely data
- Efficient data capture (intelligent automation)
- Data security

Digital First Target Operating Model

Most healthcare seeks to bring together the patient, a clinician/carer, and a record of the patient’s clinical history. The NHS was formed at a time when to unite a patient, clinician and the information meant going to the GP surgery or to a hospital. Digital technology allows this to be different, however the changes involved can seem difficult and challenge the status quo. The NHS tends to quickly revert to the way we have always done it, without thinking “why did we do it that way?”.

A redesign and new IT Service Delivery Target Operating model will be introduced which will move the focus of PTHB Digital and IT Service Delivery to a user engagement and experience model. We will develop a PTHB led service that builds upon regional and national alliances with partners and suppliers and industry best practices. Key performance indicators in place will primarily measure the user experience and the security and availability of the underpinning infrastructure. There will be a business change function to support staff to work differently and access and research those ideas for improvement and sustainability.

Supporting our workforce

Digital tools should be providing greater freedom and opportunities to do things differently and provide better treatment and care.

A culture of the system says yes, however, there can be a significant knowledge/experience/empowerment hurdles to get over that need to be acknowledged and worked at. This will require organisational support to overcome. There are digital ingredients that can be mixed for better care.

Operational Digital services should be sufficiently resourced, and each service should have improvement plans that evidences value for money.

Users should be able to use any device to access their data and complete digital tasks

Users should not need specific devices to engage with a service. Digital tools should be accessible on all common operating systems



Both staff and patients should be able to benefit from the promises of digital services being offered

Digital services should be available at all times and accessible in the patient home and on PTHB premises

All hardware should be refreshed and continually refreshed to ensure users are equipped with functioning devices

| Where Are We Now | Where would we like to be by 2027 |
|---|---|
| Not all care pathways are digitalised | Paper light via services connected across integrated care systems, implementation of an electronic document management system |
| At the moment there are a small number of operational dashboards available | More services utilize operational delivery dashboards to inform decision making |
| A small number of people have access to technology that helps them self-care | Most people who need it will have access to technology that helps them live independently |
| Demand for care closer to home is rising | Staff will have access information real time, when and where they need it |
| Wi-Fi Connectivity needs to be improved and resilient in some areas | Easily accessible and available Wi-Fi with 5g connectivity for staff, patients and guests |
| Demand for digital and data capability in services is rising | Develop leaders and confidence in digital and data |
| In some areas there are multi-professional silos are created through localized system configuration | Multi professional teams of clinicians working together and across the organisation adopting standard clinical practice to adopt and develop digital capability |
| In some cases, Digital governance and decision-making processes could be more robust and transparent | Aligned governance and decision-making processes including prioritisation, benefits realisation, incident management, performance management, project and programme initiation, reporting and management. Implementation of a Digital First Health Board steering group |
| The infrastructure has limited resilience and bandwidth to support digital system onboarding | In partnership with Estates and Facilities, Digital Services and systems will be underpinned by a modern digital and data platform, fit for purpose and future proofed for continued digital transformation |
| Small numbers of people are not digitally included | As an organisation we proactively approach members of the public, and specific patient groups/communities and the staff/services who support them |
| In some areas digital adoption could be improved in operational services | A strong policy approach to the development and implementation of digital will be in place, and will include standardised Service Operation Procedures, and regular audit of leading and managing service implementations. |
| There are complex data systems that are not fully integrated and support easy accessible information sharing | All data systems will be managed centrally to ensure data standards, data quality and consistency of configuration aligned to Information Governance, Cyber, and organisation reporting requirements |
| In some areas organisational capability in presenting and interpreting data, and reporting information is fragmented. | Following an organisational and development plan to educate and train services in consistent and confident use of information reporting and ensure there is a single source of the truth. |

5 Key Themes Digital Outcomes 2023 – 2027 (delivered via IMTP & Digital Programme of Work)

| Digital Roadmap | | | | | |
|-----------------|--|--|--|--|---|
| | Citizen – centred care and support | Leadership, Partnership and Alliances | Infrastructure and Security | Enabling efficiency and effectiveness | Big Data and Artificial Intelligence |
| 2023/24 | <p>Improved interoperability to support clinical decision making, improved patient outcomes and efficiencies.</p> <p>Maximise existing tools to capture & analyse patient experiences and outcomes.</p> <p>Evaluate the effectiveness of the community electronic patient record in comparison to alternative simple to use systems.</p> | <p>Review target operating model to support the development of new ways of working between Digital & Clinical.</p> <p>Introduce a clinical function to support the Clinical Information Officer (CCIO) to change behaviours to digital and standardise approaches.</p> <p>Expand on the on-site pan-Powys support days to include representation from across digital transformation.</p> <p>Review of workforce IT equipment to ensure staff have the right equipment to work remotely</p> | <p>Prioritise improvement plans needed to ensure the infrastructure works as staff expect and need, making Powys a place staff want to work in</p> <p>Redesign the network topology to introduce resilience and mitigate ongoing cyber threat.</p> <p>Sustained network and hosting infrastructure ensuring it is fit for purpose and resilient.</p> <p>Adopt and expand cyber security detection and response capabilities.</p> <p>Implement cloud platform to support the adoption of cloud where appropriate.</p> | <p>Scope the number of systems with the aim to simplify and standardise systems clinicians are required to use.</p> <p>Ongoing development of virtual consultations to support care closer to home and improve staff efficiencies.</p> <p>Implement health care communication tools to reduce the number of missed clinical appointments.</p> <p>Access to mobile devices to allow health care professionals to record digitally whilst out in the community.</p> <p>Improve documented working practices to focus on quality and results.</p> | <p>Adopt a Cloud first modern data architecture.</p> <p>Promote ownership of data to the services.</p> <p>Removal of data silos throughout the Health Board</p> <p>Putting the Data Team at the ‘heart’ of the HB creating ‘One source of the Truth’</p> <p>Develop a data catalogue to promote transparency.</p> |
| 2024/25 | <p>Develop data-driven technologies to help diagnose conditions using wearables, home devices and apps to record information.</p> <p>Access to digital technology to support independence,</p> | <p>Develop the capability and capacity of digital leaders.</p> <p>Improved digital learning experience by introducing ongoing training around cyber security, data protection, applications, and business intelligence.</p> | <p>Ongoing network and hosting infrastructure expanding on core infrastructure investments from 23/24.</p> <p>Improve cyber security posture through introduction of service segmentation,</p> | <p>Improved Wi-Fi coverage across the health board to ensure those with limited access can connect to our systems and services.</p> <p>Implement robust business change and benefits</p> | <p>Expansion of Data Estate to include additional Data Items.</p> <p>Training and education to increase Data Literacy throughout the Health Board</p> <p>Replacement of Manual/Paper Data Collection</p> <p>Push to more ‘Real-Time’ data collection & reporting.</p> |

| | | | | | |
|---------|---|--|--|---|---|
| | <p>promote well-being and care closer to home.</p> | <p>Opportunities to provide a digital induction and educate new staff groups.</p> | <p>detection and response capabilities and procedures.</p> <p>Improve health board service resilience, removing single points of failure.</p> | <p>realisation structure, policy, and processes.</p> <p>Implementation of a full Telephony upgrade including Welsh Language</p> | <p>Increased focus on automation and agility from all aspects of business intelligence</p> <p>Explore the user of emerging innovation coupled with AI to improve data quality</p> |
| 2025/26 | <p>Opportunities to create and maximise the use of clinical decision support tools.</p> <p>Development of a full integrated shared care record where notes are recorded once and used many times.</p> | <p>Empower staff to use digital tools and applications confidently.</p> <p>Expand digital champion's network.</p> <p>Expand the digital offer to support virtual working and reduce the HBs Co2 emissions.</p> | <p>Plan infrastructure lifecycle management for infrastructure investments 2025/2028.</p> <p>Focus on delivery of new services at a rapid pace, making PTHB able to respond to local and national programmes without delays.</p> | <p>Reduce the number of systems required and focus on the full pathway reducing professional silo's</p> <p>Removal of many pw's</p> <p>Opportunities for partnership working focused on collaboration and integration.</p> | <p>Further expansion of data estate to include data Items from Social Care and other organisations.</p> <p>Use data to inform clinical services to build knowledge and confidence where clinicians can provide coaching and triaging of patients to reduce emergency dept admissions</p> <p>Create multiple automated workflows to reduce data entry. duplication</p> <p>Adopt more of an Enabler/Account Manager role so that services own, understand & report on their own data.</p> |
| 2026/27 | <p>Develop self-help and service portals.</p> <p>Improved communication with health care staff where patients can feedback on the quality of their care.</p> | <p>Improved clinical systems that are fit for purpose that support mobile and flexible working.</p> <p>Grow internal and external capacity (succession planning).</p> <p>Digital seen as an enabler</p> | <p>End-to-End infrastructure lifecycle plans in place for all infrastructure.</p> <p>Ensure PTHB can take advantage of new local or national services without infrastructure constraints.</p> <p>Robust cyber security detection and response policies, procedures and technologies in place minimising the impact and possibility of an incident occurring.</p> | <p>Use machine learning, intelligent automation, advanced analytics, data science, risk stratification (identifying high-risk people and groups).</p> <p>Ensure collaboration and co-development are at the heart of innovation in health and care.</p> | <p>Adoption of AI & Machine Learning using expanded Data Architecture & Data Landscapes.</p> <p>Full adoption of Proactive not Reactive</p> <p>Data Derived Insights & Advanced Analytics as standard practice.</p> <p>Lead in the community informatics field with full transparency of health information processes to support audit, quality check</p> <p>Access to all relational information required for the role reducing multiple information searching</p> |

In partnership with Estates Facilities, Planning and Performance & Workforce Futures

Key Priorities for a new Digital Services Target Operating Model

The Staff Experience

Staff expect to be provided with appropriate software and hardware tools that allow them to undertake their job. This means reliable infrastructure and easy to use tools. This requires sustainable investment, easy to understand policies and procedures, and accessible training to create digital first leadership. ICT should just work, and be easy to understand and easy to use making the role of our workforce more enhanced and pleasurable.

Digital devices

Employees will be able to securely access the information they need to do their job. The device that an individual will have will depend on their role, where they work and to a lesser degree their personal preference. e.g., using their own Phone or tablet to access work systems and information. Policies are required which reflect this, along with a list of acceptable devices and support arrangements.

Digital Mobility

Staff should have access to a secure and fast network with access to the information resources available within the NHS and on the internet. This includes Wi-Fi access to enhance mobility. Over time the IT network will need to provide the bandwidth and reliability for the telephone service as the technologies continue to merge. A site-by-site review has been undertaken and an improvement plan developed to ensure that the network re-design is appropriate and that the bandwidth and Cyber assurance requirements are known. By ensuring that our network infrastructure is stable, capable and scalable, we aim to provide transparent foundations that will support our other strategic aims.

Administrative

Systems exist that help with administration e.g., access to the Electronic Staff Record, E-Expenses, e-mail etc. Each of these systems should be continually developing with new features being added over time. There should be a move to use commodity IT, which is standardised software that is continually being updated. A good example of this is the adoption of Microsoft Office 365, which has many applications that people may be unaware of, or how they can enhance their role and provide administrative efficiencies which will improve productivity. There will be digital facilitators, guides and videos available to make sure that people know how they should use systems and to have the confidence to use them. Some of these

products will be optional and users can explore how and when they use them themselves or within their teams.

Support - for patient care

Our workforce are responsible for having the digital skills and confidence to use the systems to deliver safe and effective care. Standard operating procedures along with good practice guides must be in place. Those with access to patient information will have completed mandatory Information Governance training. Staff must be aware of the requirement to update the information as they provide care as others using the systems will be reliant on, and assume that, the information is up to date. As new models of care are developed using the freedom that digital brings the use of systems becomes part of good care. All patient care applications should be available on mobile devices.

Sustainability for transformation

Staff should be given the opportunity to think about their job differently. The new IT Service Target operating model will support staff to develop new working models combining clinical knowledge with wider organisational knowledge and experience of what digital tools can do and how they can help deliver services and the day-to-day role.

Digital Support

Access - Each person will know how to get the digital support they need with a single contact point and multiple ways of engaging such as a centralised portal, email, chat, video, telephone, text and in person. There will be a 'Tech Bar' available for walk ins to offer digital support, advice and guidance.

Engagement

Staff will be made aware of the product development pipeline and have a way of contributing ideas, innovation, and suggestions for continual service improvement. Benefits realisation exercises and sharing best practice case studies will be developed through Digital and organisation wide communications.

Supporting our Population

What the public should expect

People increasingly expect to interact with services using digital services and using technology. This includes access to their health records and the progress of their treatment including details of appointment referrals and what is happening next. In addition to this there is an expectation that information about their condition and

treatment options should be available in various electronic formats and should be easily available and to some degree tailored to them personally.

People should know that their information is being held to benefit them and that they can be confident in the way that Powys hold and maintain the information about them. They should know that they will be asked for information once as we securely share it with other health and care providers to enhance their care.

Information Governance and cyber security manage the protection of sensitive information stored by the health board, and this will be a high priority. We aim to ensure that required and recommended security and governance standards form a key part of every digital service. We will ensure that security is considered throughout the service's lifecycle, from procurement to decommissioning. We will continuously adapt our cyber security posture to respond to the latest risks and vulnerabilities in this evolving landscape across all of our services.

People should know that they will not be excluded from services if they lack digital skills or capability. The health board will sign up to the digital inclusion charter and lead on digital inclusion using our facilities and skills to help people to use technology. Noting that not all digital health services require patients to be end users and so progress can be made in transformation without necessarily giving people technology.

The health board will support the national case for investment in patient records and the use of My Health On-line. Digital Services for Patients and the Public (DSPP) will need to support people's ability to look after their own well-being whilst connecting more efficiently and effectively with health and care, with online access to information and their own records; undertaking a variety of health transactions directly, using technology, and using digital tools and apps to support self-care, health monitoring and maintaining independent living.

This will mean participating in the provision of on-line accounts for people in Powys helping to make the case for national investment. Recognising that to make it easy for patients, the NHS will need to work as one organisation, avoiding the temptation to create on-line accounts for every different service a patient might have contact with. The approach also needs to operate across the border with England.

The PTHB website should be reviewed continually to make sure it has the information patients want and need.

Digital Project and Programme Management

Clarity on the status of projects and digital services

A project should have a lifecycle that ends and delivers operational services that require support. Projects need organisational visibility and need to end. They also need to be supported and aligned to the delivery of strategic objectives. We must

describe our requirements 'generically', drawing parallels with services provided in other sectors. This will help vendors understand that our requirements are only bespoke in exceptional circumstances or where we provide niche services.

A new project dashboard to allow progress to be monitored will provide assurance to governance groups and the board as well as acting as a means of communication to the rest of the organization. Streamlined governance arrangements will group projects to reduce the number of boards required to fit with the Digital First headings.

We must recognise that a digital solution procurement is not a project in itself. In the vast majority of cases, the project is a business change that is underpinned by a digital solution. We must therefore construct the project accordingly with appropriate resourced plans and clinical engagement not only to deliver and implement the business change, design and implement the service management wrap and address the business continuity implications.

Data Driven

Making information key to decisions

The statement that we are data rich and information poor is still true but increasingly we are information rich but do not always manage to link this with service planning and decision making. Ways of working will and can change with the knowledge provided by the data intelligence. There needs to be greater awareness of the data available and better on-line access to it. Healthcare is an increasingly data driven industry and plays a critical role in helping to make informed decisions and optimize operations. A centralised Business and Analytics function will work closely with services to analyse activity and maximise intelligence that can improve health and prevent admissions.

Services will be clear on what data and information they require to sustain, improve, and ensure efficiency in their healthcare delivery. This collaboration will result in improved quality and consistency of data input and reduce duplication of data collection where possible.

Local Data Resource

Care Teams and Senior Managers need data for decision making by embedding a local data repository via a redesigned data architecture platform, with Power BI reports and dashboards within the organisational portals that they already use. Safeguarding sensitive data as required using access controls and governance policies will allow secure provision to care teams access to the data they need. This is made possible by modernising the data platform, and will integrate with the many complex systems, internal and 3rd party partners, to provide greater visibility into our data and will collect real time insights for Key Performance Indicators. This will help make sense of multiple sets of data at once. Having access to information related to internal operations, the patient experience, workforce agendas/schedules

will contribute to providing evidence-based causes and solutions from a single platform. This will allow deeper analysis whilst continuing to sustain productivity.

Value Based Healthcare

The Welsh Government Value-Based Healthcare Programme (VBHC) is seeking to develop visual information products and analysis incorporating patient data, clinical outcome /audit data, patient reported outcome measures (PROMS) and financial costing data to inform a Value-Based approach to service transformation and sustainability. To improve the health outcomes of the people of Wales in a financially sustainable way, through the creation of a data-driven care system that seeks to provide timely information to citizens, clinical teams, and organisations to inform better, safer decision-making. Powys will engage with this work to develop and implement dashboards for "the Big Four" and to continue to promote the use of Patient Reported Outcome Measures (PROMS) and Patient Reported Experience Measures (PREMS).

Policy and Standards

We will continue to ensure that there are processes in place to adopt, contribute to and implement local and national digital policies. Through collaboration with national boards, peer groups and policy leads we will seek to influence policy direction where appropriate.

Local policies will be introduced to support consistent and standardised use of systems, working in partnership with Workforce Futures to develop confidence in digital systems, and with planning and performance to ensure the business intelligence from data entry is available to enhance and improve service delivery.

The Digital Services Support Structure

Digital Transformation and Informatics

Recognising the demand and requirement for a fully supportive Digital business service, we will continue to shift the focus of the ICT support model by exiting the bilateral S33 ICT Service agreement of operational delivery and focus more on supporting service leads to enact business change that is underpinned by digital solutions.

We will expand the scope of our relations with key partners such as alliances with NHS Wales organisations, and voluntary and regional 3rd party partnerships and Digital Health Care Wales to deliver a broader range of support and service management. This will require negotiation of SLA provision to move further towards a fully managed service offering where possible.

We have an opportunity for 'green field' solutions development i.e., development that introduces brand new business processes and requires untried development

techniques that provides opportunities to invest in solution architecture skills and staff development on emerging technologies, such as the use of remote devices (HoloLens for remote ward rounds) and robotics. The digital services will be internally established and provide the necessary capability and capacity within the Health Board.

Core Digital Informatics Service Functions

| | | | |
|---|---|---|---|
| <p>Digital Information Technology</p> <p>Provision of end-to-end IT support for our services to ensure staff have the right equipment and access to the information they need to carry out their role.</p> | <p>Procurement Services</p> <p>Responsible for the procurement and supplier management of all related digital assets and applications and management of the software and configuration management database</p> | <p>Telephony Services</p> <p>Management of the full telephony service offering including maintenance of mobile telephony, Switchboards, call centers and line usage and billing</p> | <p>IT Service Management</p> <p>Leading IT Service management process and functions, best practice alignment including Incident, problem and change, service transition, service design, continual service improvement and alignment with the Service Desk Institute</p> |
| <p>Data Architecture</p> <p>Responsible for the safe, secure & governed storage and processing of Data from multiple disciplines throughout Powys Teaching Health Board</p> | <p>Business Intelligence</p> <p>Leading and enabling the Health Board and stakeholders' access to Data & Information via multiple delivery methods – ultimately to drive more Data driven decisions & ownership</p> | <p>Application and product specialist Support</p> <p>Responsible for the maintenance, training & standards of multiple administration & clinical systems used by the Health Board. This includes both locally implemented & National Systems</p> | <p>Application Development Team</p> <p>The App Development Team is responsible for the development, security, training & maintenance of low-code apps developed within the Health Board to replace a number of instances of manual collection of Data with a more standards driven approach under a common framework</p> |
| <p>Clinical Coding</p> <p>Responsible for coding patient activity within Powys Teaching Health Board to enable accurate recording & reporting on diagnosis' and procedures within Powys</p> | <p>Cyber Security and Resilience</p> <p>Manage and protect the infrastructure, applications, network and devices and collaborate with digital Governance to ensure the supplier chain meets the Cyber assurance framework. To monitor and alert risk and prevent unauthorized access. To lead user education in Cyber Threat awareness</p> | <p>Network & Connectivity</p> <p>Lead and management of Network capacity, availability, resilience and configuration including WiFi coverage across multiple sites. Event management and robust change management activities to ensure a secure well performing network.</p> | <p>Cloud & Hosting</p> <p>Management of moving to a modernized virtualized and cloud hosted estate, including license management and compliance. As services move to cloud hosting demand will drive better understanding of associated demand and costs</p> |
| <p>Digital Transformation</p> <p>Leading innovation collaboratively with the Research and Innovation Hub, and the Health Care Learning Academy to maximise the use of new</p> | <p>Information Governance & Records Mgmt</p> <p>Responds to the rise in digital data and concerns about data privacy and security. Accountable for Freedom on Information,</p> | <p>Digital Capabilities</p> <p>Working in collaboration with the Chief Clinical Information Officer, Clinical Nurse Informatics Lead, Workforces Futures to deliver confidence, capability, and skills.</p> | <p>Programme and Project Management</p> <p>Leading, planning, engaging and delivery of all digital projects and programs locally, regionally, and nationally. Full project management and</p> |

| | | | |
|---|---|--|---|
| and existing technology such as HoloLens, Pepper and AI | Subject Access Requests and adhering to GDPR and associated legal compliance. Leading and support for the implementation of processes for directing and controlling the organisations information (records) | Continued support for services to adopt digital ways of working. | programme management support including risk management and benefits management. Responsible for associated business cases and bid submission where applicable |
|---|---|--|---|

Success Criteria & Benefits

There are several essential criteria for successful IT Service Delivery:

- ✓ **Assess levels of maturity in line with industry best practice**
- ✓ **Alignment of Digital IT to meet business needs.**
- ✓ **Clinically led collaboration and improved communication**
- ✓ **Creating better staff and patient experience**
- ✓ **Enhanced Security and improved quality**
- ✓ **Reduction of technical debt and outdated technology**
- ✓ **Ensuring confidentiality, integrity and availability of patient and staff data**
- ✓ **Build robust resilience to ensure system up time and availability**
- ✓ **Simplify and optimise our use of Digital resources.**
- ✓ **Rationalise on-premises data centre count.**
- ✓ **Operating a maximum securely managed hybrid cloud platform**
- ✓ **Enable future proof estate and platform for digital growth and innovation**
- ✓ **Improved Decision making, planning and performance through a single source of the truth and improved data analytics**

How will the Strategic Framework be implemented?

Our digital aims and the related outcomes are being used to help guide our decisions, and a programme of work will be developed and included as part of the IMTP and tracked by the PTHB Senior Leadership group and the Delivery and Performance Group. We will review the overall strategy annually to ensure it remains relevant and fit for purpose.

There will be a prioritisation and planning exercise to critically review the programmes of work to ensure they are in line with the organisations needs.

There will be several programmes and projects to deliver the ambition, over the next four years. Those requiring funding will follow business case approval, where applicable and be managed through best practice project management principles.

Established projects within the programme will be designed to deliver the optimal Target Operating Model aligned to role-based requirements and sustainability. An indicative approach to Role based requirements is included as Persona Story Boards in Appendix 1.

A persona matrix of requirements is shown below:

Persona Matrix

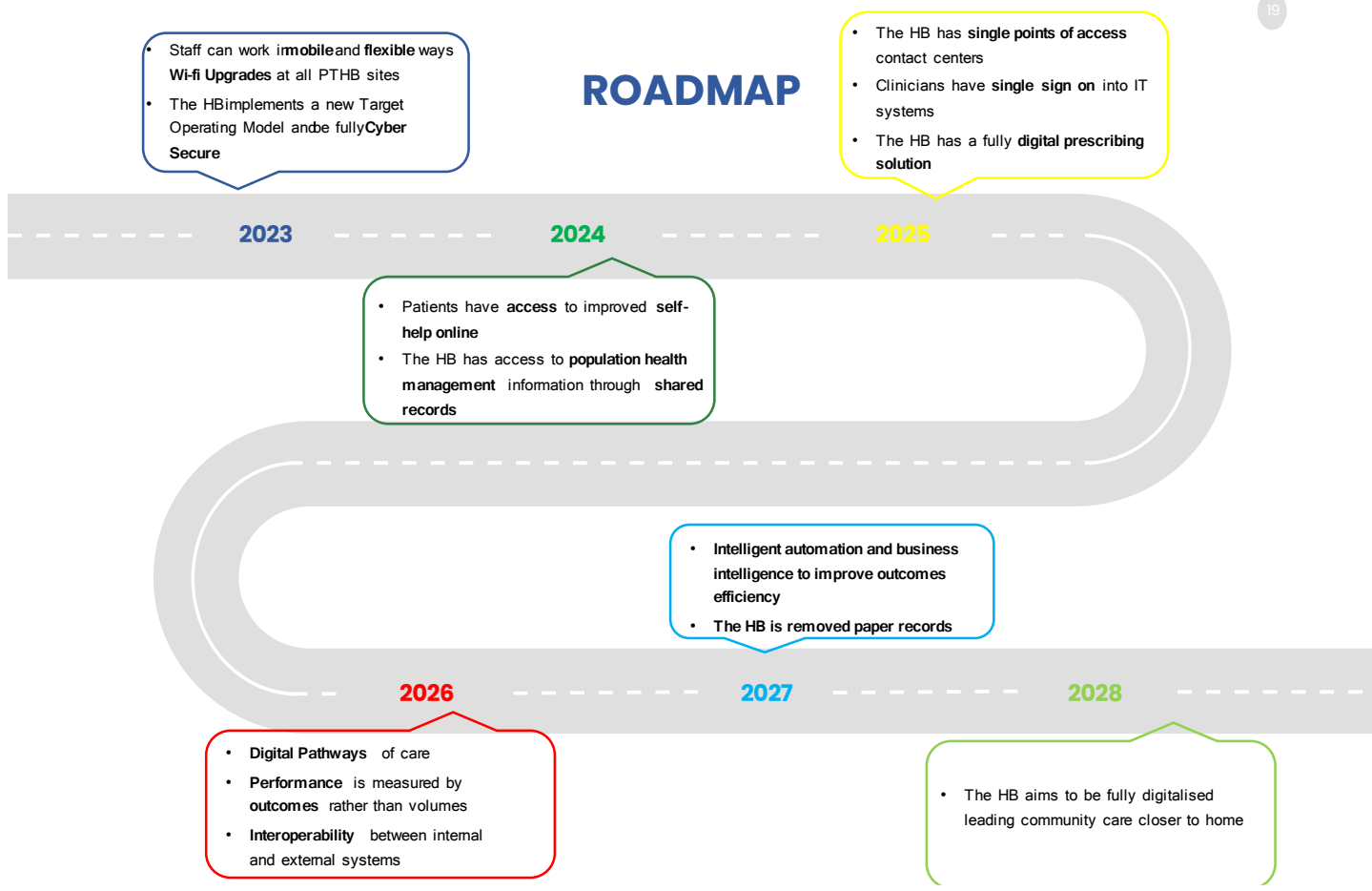
| | Executive | Corporate Office / Clinical Admin | Corporate Mobile | Clinical Clinic | Clinic Mobile | Support Worker | |
|-------------------------|--|---|---|---|---|---|--|
| User Description | Highly Mobile user who tends to travel between WHT and Community or Non Trust sites and Home | User spends majority of time in the same office with limited travel | Highly Mobile user who tends to be mobile between the hospital locations and home | Highly Mobile user who tends to travel between the Hospital and other Trust or non-Trust locations and home | User spends majority of time in the Hospital and some travel in Community | User is highly mobile and travels to clinics, patient homes, and a range of care meetings | User based mostly in a fixed location, large amount of time spent on the phone |
| Example Role | Director, Manager, Team Leader | Medical Secretary, Receptionist | Director, Manager, Team Leader | Pharmacist, Clinician, Matron | District Nurse, Health Visitor, School Nurses | Receptionist, Service Desk, Service Centre | |
| Options | Option 1 Option 2 | Option 1 | Option 1 Option 2 | Option 1 | Option 1 | Option 1 | |
| Client Device | Virtual Desktop Laptop Tablet | Virtual Desktop | Virtual Desktop Laptop Tablet | Virtual Desktop | Laptop Tablet | Virtual Desktop | |
| Desk Phone | Direct Dial Telephone Number Manager / PA Configuration (optional) | Internal Extension Telephone Number Virtual Telephone | Direct Dial Telephone Number Virtual Telephone | Direct Dial Telephone Number Virtual Telephone | Direct Dial Telephone Number Virtual Telephone | Internal Extension Telephone Number Virtual Telephone | |
| Mobile Device | Smart Phone Data Sim | No Mobile | Smart Phone Data Sim | Voice / Text Mobile (if required) | Smart Phone Data Sim | No Mobile | |
| Printing | Managed Print Service Manager / PA configuration (optional) | Managed Print Service | Managed Print Service | Managed Print Service | Managed Print Service | Managed Print Service | |
| Office 365 | Office 365 Licence E5 / E3 | Office 365 Licence E3 / E1 | Office 365 Licence E1 / E3 | Office 365 Licence E1 | Office 365 Licence E1 | Office 365 Licence F1 | |

Current Digital Programme of Work

| Project | Quarter | Year Complete |
|---|-----------|----------------|
| Cross Border (Interoperability) | Q1 | 2024/25 |
| Health Care Communications (Text messaging Hybrid Mail) | Q2 | 2023/24 |

| | | |
|--|-------------------------|----------------|
| Electronic Prescribing of Medicines Administration | Q4 | 2025/26 |
| Attend Anywhere Video Consultations Re-Launch | Q4 | 2023/24 |
| Electronic Referrals (Welsh Admin Portal) | Q1 | 2023/24 |
| Scan 4 Safety | Q2 | 2023/24 |
| Digitisation of Records | Waiting to start | |
| EyeCare Digitalisation | On Hold | |
| Sharepoint Migration | Q1 | 2023/24 |
| Telephony Upgrade (PSTN Switch off 2025) | Q3 | 2023/24 |
| Follow Me Printing, Managed Print Service | Q1 | 2023/24 |
| UPS replacement | Q1 | 2023/24 |
| Cabling Upgrade | Q4 | 2023/24 |
| Cloud migration | Q1 | 2023/24 |
| Digital Portal Implementation | Q2 | 2023/24 |
| Replacement of Backup Hardware and Licensing | Q1 | 2023/24 |
| Wi-Fi Upgrade | Q3 | 2023/24 |
| RISP | Waiting to Start | |

Our Vision Digital First



Appendix 1 - Persona Story Boards



Persona%20Story%20Boards.pptx