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Bwrdd Iechyd Prifysgol
Bae Abertawe
Swansea Bay University
Health Board

Digital Strategy

Our organisational approach to service driven transformation for digital, data and technology



Un Bae Ar y Cyd
One Bay Way

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A Foreword From the Chief Executive and the Director of Digital



The last five years have been an extremely challenging time for healthcare. Since the pandemic, demand for health services has remained high, and staff across both clinical and operational teams within Swansea Bay are working under significant pressures to deliver high quality care for the population.

The pandemic greatly accelerated the rate of digital progress and adoption across our organisation making now the perfect time to capitalise on strong foundations and push forward with the digital agenda. We recognise the need for thoughtful, transformational change across our health board with robust, data driven decision making and analysis at the heart to help us make the very best decisions for the people we serve.

The Digital Strategy, outlines our ambitions for making SBUHB an inclusive, 'digital first' organisation, using the most appropriate digital tools intelligently and selectively to support service-led transformation and deliver tangible benefits for the workforce, our patients and our population.
Abigail Harris – Chief Executive

We have worked hard to ensure that this strategy strikes a balance between being highly ambitious whilst still being realistic and feasible.

Realising our vision will require the skills and commitment of all our colleagues, digital and non-digitally minded alike, working together with our key partners across Wales and of course the people of Swansea Bay.

We are excited by the potential of this strategy to establish SBUHB as a UK digital exemplar – delivering a modern, safe, high-quality service for the people of Swansea, Neath Port Talbot and further afield.

Matthew John – Director of Digital



Who is the Digital Strategy for?

Swansea Bay University Health Board (SBUHB) leadership - to establish the vision and strategic direction for digital, data and technology to enable our SBUHB organisational ambitions, and build momentum and support for the work required to make this a reality



Clinical and Service Leads – enabling our leads to transform service delivery by using digital technology for the benefit of our patients and SBUHB.



Digital and clinical Digital leaders and their teams - to establish the strategic direction for digital in SBUHB and to ensure colleagues understand how their work contributes to achieving this vision



All employees of SBUHB – to highlight what the strategy means for colleagues across SBUHB in their day-to-day roles including operational staff and clinical and care professionals

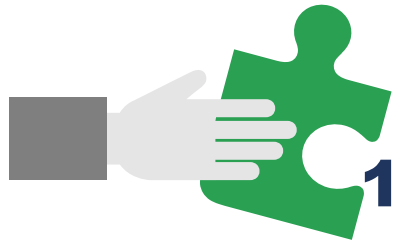


Our patients and wider population - to communicate what digital, data and technology transformation means for the care and well-being of the people of Swansea Bay

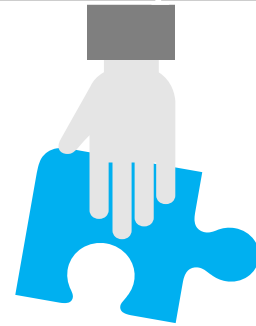


Our local, regional and national partners- to show how we will work together to achieve collective goals and shared objectives





1. Executive Summary



Executive Summary (1)

The Digital Strategy sets out the Health Board's digital vision and key deliverables over the next 10 years. The strategy is aligned to the One Bay Way principles of becoming a high-quality organisation, which is depicted in the vision statement: **"To improve the health and well-being of the population of Swansea Bay by harnessing the power of digital technology and digital transformation."**

Our Digital Strategy is aligned with the Health Board's strategic objectives, enabling technology to drive and support our overarching goals. This alignment ensures that digital transformation is not pursued in isolation but is embedded within service transformation, to enhance efficiency, improve patient outcomes and provide high-quality care.

The Strategy is the result of extensive engagement and consultation with our staff, patients, partners and stakeholders, as well as a comprehensive review of the current digital landscape, the emerging trends and challenges, and the best practices from other health systems. Our strong internal digital capabilities combined with impactful commitment to collaboration on regional and national programmes has enabled us to build the strong digital foundations SBUHB has today. However, the strategy recognises the need for further advances in the way we use digital, data and technology to enable service-led transformation and deliver tangible benefits to our patients, population and workforce.

Whilst the strategy describes the technical approach to delivery, it strongly emphasises that the vision requires the skills and commitment of all colleagues across the Health Board. The Strategy recognises that the Health Board cannot deliver the benefits required for the provision of sustainable healthcare by simply replicating current paper and hybrid processes within new digital solutions. There is an opportunity to deliver true transformation as the Health Board removes barriers to change that currently dictate how services are delivered, such as the reliance on paper. It also recognises that the Health Board will not be able to seize upon the opportunities presented by new and emerging technologies such as Artificial Intelligence, machine learning, genomics, big data etc. unless the fundamental building blocks of capturing information electronically, as part of care delivery, are in place.

The SBUHB digital landscape needs to be simplified, rationalising current systems and developing a central Electronic Patient Record (EPR) model and Care Data Repository (CDR). This approach will enable 'true integration', where information about a patient can be entered once and will automatically populate across all relevant systems thus feeding a rich data repository that is capable of supporting advanced business intelligence and analytics. Alongside this, the EPR model will make it possible for all clinicians to access the patient information they need to make the highest quality clinical decisions regardless of where they sit in the system, reducing the need for patients to repeat their stories and ensuring clinicians and care professionals understand a person's full medical history and circumstances when engaging in their care. Key to this is a focus on digital inclusion – we must ensure that our digital transformation never excludes our patients from health and care or creates increased barriers to accessing our services, on the basis of digital ability.

There is a national approach to digital in NHS Wales. Delivering a single integrated patient record that provides clinicians with all the relevant information at the point of care, regardless of where in Wales the patient is seen, is at the heart of national policy. In April 2021, the Special Health Authority for Digital, Digital Health and Care Wales (DHCW), was formed to lead and support on effective digital transformation across NHS Wales. A recent review of NHS Wales digital governance identified 16 recommendations to strengthen the approach, controls and assurance mechanisms for digital delivery. It is imperative that SBUHB leaders support and influence the implementation of these recommendations, which will have a significant impact on digital advancement across the Health Board. Effective collaboration at a national level will be vitally important to the success of the Health Board's digital journey. SBUHB must strike the right balance between local innovation and exploiting national resources and solutions.

Executive Summary (2)

Furthermore, partnerships and collaborative working on digital transformation with other key organisations will be essential to the success of the Health Board. Strengthening the links between health and social care and working closely with local authorities will be increasingly important for delivering integrated care. Under the direction of the joint committee between SBUHB and Hywel Dda University Health Board, we will identify opportunities to accelerate digital transformation together across the region.

The strategy identifies four key enablers that are crucial for its success: Data & Analytics, Technology & Digital, Workforce & Culture, and Organisational Functions. These enablers are intricately aligned with the vision of the strategy and have a transformative effect on the entire organisation.

- **Workforce & Culture:** Ensuring that the workforce is confident and supported in using digital tools. This involves providing the necessary skills and training to realize the benefits of digital transformation
- **Data & Analytics:** Leveraging data to generate insights that improve health outcomes and relieve pressures on staff. This requires collaboration with clinical colleagues to design and iterate the digital environment
- **Technology & Digital:** Implementing powerful, streamlined digital systems and technology to benefit both patients and colleagues. This includes moving to cloud-based infrastructure to improve resilience, security, and functionality
- **Organisational Functions:** Supporting service-led transformation through clear governance, robust business case practices, clear and consistent benefits/impact identification and reporting and tight financial oversight

By focusing on these enablers and fostering a sense of collective responsibility, SBUHB aims to establish itself as a UK digital exemplar, delivering a modern, safe, high-quality service for the people of Swansea Bay.

Benefits and Investment

The Strategy will deliver digitally enabled service transformation across the 5 SBUHB Programme areas: Population Health and Wellbeing; Primary Care and Closer to Home; Mental Health and Learning Disability; Planned Care; and Unscheduled Care. Each of these Programmes will see a wide range of benefit opportunities to support the transformation of service provision, including:

- **Improved Patient Care and Outcomes:** The strategy focuses on leveraging digital tools to enhance patient care. This includes real-time access to patient data, improved clinical workflows, and seamless integration between primary and secondary care. These improvements are expected to lead to better health outcomes and more efficient care delivery.
- **Enhanced Patient Empowerment:** Digital solutions will empower patients to manage their own care and well-being. This includes access to their health information, remote monitoring, and virtual consultations, which will enable patients to receive care at home or in community settings.
- **Operational Efficiency:** The strategy aims to streamline processes and reduce operational costs through the use of AI and automation. This includes improving recruitment and retention of staff by providing a more flexible and engaging work environment.
- **Data-Driven Decision Making:** By leveraging data and analytics, the strategy aims to generate insights that improve health outcomes and relieve pressures on staff. This includes the use of big data to identify disparities across populations and address inequalities through targeted interventions.
- **Improved Workforce Capabilities:** The strategy includes initiatives to develop the digital skills of the workforce, providing necessary training and support to ensure staff are confident and supported in using digital tools.

Executive Summary (3)

The Strategy advocates the establishment of a Health Board wide Benefits Framework. The framework will ensure that all transformation initiatives are aligned with the Health Board's broader strategic objectives, providing a clear and consistent way to measure the impact of all investments and service transformations. By establishing clear, consistent metrics across the Health Board, the framework will help track progress, demonstrate value, and ensure accountability. It will also facilitate informed decision-making, enabling the Health Board to prioritise initiatives that offer the greatest benefits to patient care, operational efficiency and progress towards achieving the Health Board's Strategic Objectives. Once established the framework will allow measuring and tracking of the benefits realisation and ongoing performance management.

The Digital Strategy will require significant investment of resources and will require significant cash releasing savings to ensure the delivery of sustainable high-quality services to our population. Digital experts suggest that allocating 5-10% of total Health Board income to digital and data is the benchmark for achieving Digital Transformation and reaching HIMSS Digital Maturity Stage 7. This is much higher than the current annual spend on Data and Digital at SBUHB of just over 2%. The Strategy sets out the indicative requirement for SBUHB to increase the allocation to 4.6% of allocation over the 10 years. Recognising the Health Board's financial challenges, the delivery of the strategy will require robust business cases, collaborative national working, Welsh Government support and external strategic partnerships in order to realise the full potential of a digitally enabled health and care service.

The Kings Fund briefing: "A digital NHS: An introduction to the digital agenda and plans for implementation in 2016", highlighted McKinsey estimated that the digital transformation of Health organisations can save between 7% and 11.5% of their health expenditure. For SBUHB this would equate to between £81.2m and £133.4m per annum (based on the current allocation). The benefits framework will therefore have a key role to play in ensuring that digitally enabled transformation delivers the SBUHB strategic objectives in a sustainable and affordable way.

Mobilisation Plan

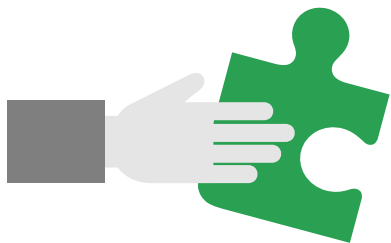
We believe the key to the success of our strategy in the long term is rapid yet thoughtful change within the next three years to 2028. Our ambitious 3-year roadmap maximises the enormous potential of SBUHB by focussing on a prioritised list of strong digital foundations, building a robust, modern, and consolidated suite of digital and data capabilities.

The Mobilisation Plan sets out the 3 key areas of work that must now be undertaken over the course of next 12 months to evaluate SBUHB's current work and maximise the SBUHB Digital Strategy's success. The three areas include:

Aligning – securing sign-off, maintaining momentum and building buy-in

Mapping – testing and prioritising digital projects against the new vision,

Structuring – setting up the programme for success



2. Our Context



Addressing Healthcare Needs in Swansea Bay

1. Demand for our services is growing.

The percentage of our citizens aged **>85 will double** by 2035

35% of our citizens report feeling limited by a longstanding condition

67% of people in Swansea Bay have had contact with us in the last 6 months.

2. We are still an unequal society, and this impacts our health.

Concerns have been raised by residents over **'rural poverty'** with inequity of access to services

There is a **9-year difference** in life expectancy between the wealthiest and poorest fifths of our population

30% of Children in Swansea bay are living in poverty

3. Satisfaction with healthcare services is falling.

In a recent survey of Swansea Bay, **52%** of respondents were satisfied with the quality of health and social care

Two thirds of the public think the standard of NHS care has gotten worse over the last 12 months, whilst **over 50%** think it will continue to get worse.

£1.6bn
health budget

13,500
Health & Care
staff

3
major hospitals

390,000
population

92
community
pharmacies

51
GP practices

72
dental practices

32
optometry
practices

Aligning the Digital Strategy to the Strategic Objectives

Our Digital Strategy is aligned with the Health Board's strategic objectives, enabling technology to drive and support our overarching goals. This alignment ensures that digital transformation is not pursued in isolation but is embedded within service transformation, to enhance efficiency, improve patient outcomes and provide high-quality care.

People of Swansea Bay live healthier, equitable and more equal and prosperous lives



- Patient-facing digital solutions will empower patients and residents to manage their own care and well being.
- Better health outcomes through real time access to patient data and improved clinical workflows.
- Seamless integration between primary and secondary care enabling joined up care.
- Digital technology will bridge the gap in health care access, particularly in rural and underserved areas.
- Big data identifies disparities across populations and can address inequalities through targeted interventions.

Care is high quality, safe, efficient and delivers the best possible outcomes for people



- The provision of real time patient information reduces errors and/or lost or incomplete information.
- Advanced digital intelligence will help to monitor performance and identify areas of improvement.
- Automated alerts and clinical decision support systems enhance patient safety.
- Data driven insights allow for personalised care and predictive analytics to enable early interventions.
- Scored outcome Measures (PROMS) completed by the patient, help clinicians assess condition progress, available from individual, service and organisational perspectives supporting triage, screening, condition monitoring and direct patient care.

Care is delivered in safe and appropriate settings supported by innovative digital solutions



- Remote monitoring will enable patients to receive care at home or in community settings, reducing hospital admissions and providing timely interventions.
- Digital solutions can empower patients to access their own health information leading to better adherence to treatment plans through continuous assessment and improved communication between the patient and clinician.
- Secure, trusted and insightful data and digital platforms empower staff to deliver more and higher quality care and improved patient outcomes and population health.
- AI algorithms can analyse data to identify patterns and risk factors, enabling clinicians to intervene sooner and provide timely care in appropriate settings.

The health board is a great place to work where staff feel valued and work together towards a common goal



- Encourage a digitally inclusive culture, where patients, clinicians and non-clinical colleagues work collaboratively to digitally transform the health board.
- Digital tools empower flexible hybrid working by enabling seamless communication and the ability to access information from anywhere.
- Platforms for document sharing, video conferencing, and project management enhance teamwork and ensure everyone is working towards common goals.
- Creating a culture of digital innovation across the organisation and making the digital team at SBUHB a desirable place to work and progress one's career
- Developing a workforce's digital skills will equip them with valuable digital capabilities they can apply outside of work.
- Enabling digital ways of working can improve recruitment and retention of staff as it provides a more flexible and engaging work environment.

The health board is a resilient, financially sustainable and responsible organisation



- Robust cyber security will strengthen the Health Board's resilience, ensuring continuity of critical services, contributing to long-term financial sustainability.
- Data-driven decision making will allow the Health Board to allocate resources efficiently, improving patient outcomes and identifying cost-saving opportunities.
- AI and automation can streamline processes, reduce operational costs and improve efficiency.
- Effective benefits realisation ensures investment in digital technology delivers measurable improvements in efficiency, patient care and cost savings.

Our Digital Journey at Swansea Bay

Since its formation in 2019, we have worked hard to make Swansea Bay University Health Board a Welsh leader for digital and data innovation in health and care. We have successfully aligned solution delivery with organisational and national priorities. During the COVID-19 pandemic, while acknowledging the devastating impacts on our citizens and people, we were able to drive digital transformation at an exceptional pace, transforming the way we work to deliver care to our patients.

A few examples of the work we've done include:

- Local development of the Welsh Nursing Care Record which has since been rolled out across Wales, transforming nursing documentation from paper to digital
- Creation and deployment of SIGNAL digitising patient flow in a hospital setting
- Pathfinder for the Electronic Prescribing and Medicines Administration (ePMA) system. The Health Board has successfully rolled out ePMA across all adult inpatient wards and Mental Health and Learning Disability sites
- Delivering data analytics through the availability of a vast amount of Business Intelligence dashboards
- Roll-out of Microsoft 365 across Swansea Bay for all our staff transforming the way our staff work and increasing the digital capability to collaborate with strategic partners
- New modern energy efficient data centre built at Morriston Hospital
- Completed wireless rollout for all acute, community and mental health hospitals providing access to clinical systems at the point of care
- Increasing adoption of cloud-based services providing digital systems for patients and staff, including workforce systems, finance systems, virtual consultations, booking solutions
- Implemented fast login to shared devices saving clinicians time for accessing clinical systems and e-prescribing
- Implementing the Swansea Bay Patient Portal to empower our patients and citizens to engage with their care

But we know there is still a lot more to do to make the most of digital and data solutions for our patients, our staff and our organisation. This strategy sets out how we will work towards achieving this.

National Context

There is a national approach to digital in NHS Wales. Delivering a single integrated patient record that provides clinicians with all the relevant information at the point of care, regardless of where in Wales the patient is seen, is at the heart of national policy. In April 2021, the Special Health Authority for Digital, Digital Health and Care Wales (DHCW), was formed to lead and support on effective digital transformation across NHS Wales. A recent review of NHS Wales digital governance identified 16 recommendations to strengthen the approach, controls and assurance mechanisms for digital delivery. It is imperative that SBUHB leaders support and influence the implementation of these recommendations, which will have a significant impact on digital advancement across the Health Board. Effective collaboration at a national level will be vitally important to the success of the Health Board's digital journey.

SBUHB will ensure the strategy aligns with national strategies such as the Welsh Government's Digital and Data Strategy and DHCW's Organisational Strategy. SBUHB must strike the right balance between local innovation and exploiting national resources and solutions. SBUHB will play a lead role in:

- **ensuring consistency and standardisation across NHS Wales** – enabling a unified approach to digital transformation across Wales, reducing duplication and ensuring seamless interoperability across systems
- **improving patient care and outcomes** – supporting clinical workflows, allowing better and easier access to data and digital solutions for both patients and healthcare professionals
- **enhancing efficiency and resource allocation** – the delivery of national solutions will benefit all health boards and will help to streamline digital investments and maximise the impact of shared technologies and solutions
- **strengthen data sharing and security** – facilitate secure, real-time information sharing across health and social care to support clinical decision making
- **influence national priorities** - continue to act as a national digital influencer to influence SBUHB's priorities and deliver the best possible outcomes for the population of Swansea Bay
- **promoting collaboration and innovation** – working collaboratively will encourage shared learning and the adoption of best practices, helping to drive digital transformation across Wales
- **future proofing digital infrastructure** – build scalable, adaptable digital solutions that support long term digital transformation across Wales

The Importance of Digital Maturity

The Healthcare Information and Management Systems Society (HIMSS) digital maturity models provide an internationality regarded standard by which to assess digital maturity in healthcare systems between Stage 0 and Stage 7.

A recent HIMSS **Electronic Medical Record Adoption Model (EMRAM)** assessment at Morriston, resulted in SBUHB receiving a **Stage 1** result, performing favourably in comparison to other Welsh health boards and making strong progress against many of the criteria of the higher stages. However, we are currently **unable to progress** beyond Stage 1 without addressing the **mandatory criterion of a CDR** in place as a single data repository. **By simply adding a CDR, it is highly likely that SBUHB could progress rapidly to Stage 5.**

Having mature digital, data and technology infrastructures in place is the only way to keep pace with modern innovation in healthcare and ensure SBUHB continue to deliver the best possible outcomes for our population.

A study of 1700 leaders found digitally mature organisations gain abilities in dynamically and accurately understanding the needs of the population they serve, through an increased quantity of data that can be more intelligently analysed, enabling them to “develop new offerings based on evolving customer needs and desires”¹.

Research conducted across 1,000s of healthcare organisations² showed that those with **advanced HIMSS scores (Stage 6 and Stage 7)**:

- Have **significantly stronger patient experience** scores
- Perform **significantly higher on patient safety** - including on surgery safety outcome measures such as collapsed lung, post operative respiratory failure and accidental cuts and tears
- Have **significantly lower numbers of adverse events** – with statistically significant correlations found in measures on retained foreign objects, falls and trauma, and pressure ulcers
- Hospitals at Stage 7 also had **statistically better operational outcomes**, such as bed occupancy rates and shorter patient transfer times, compared to those at Stages 0 – 4

If SBUHB fails to focus on digital maturity now, then we risk falling behind over the next decade. By acting on this strategy here in 2025, we can deliver better care for the people of Swansea Bay in 2036.

¹ <https://hbswk.hbs.edu/item/leading-in-the-digital-era-where-can-digital-transformation-take-you>

² <https://www.digitalhealth.net/2023/04/himss-study-suggests-digitally-mature-hospitals-perform-better-on-safety/>

The Need to Act Now

1

MAINTAINING HIGH-QUALITY CARE

Modern digital, data and technology is essential to delivering the high-quality care our patients expect and enacting a more preventative model that supports residents to stay healthy. If SBUHB don't act now to keep pace with more digitally mature health systems, our patients risk poorer outcomes in the longer-term by comparison

2

A SUSTAINABLE NHS

Continue serving the rising demand and expectations and addressing the health inequities without digitally-enabled ways of working is becoming unsustainable. Manual/paper-based ways of working will become operationally unsupportable due to the impact of demographics and the difficulties of attracting and retaining staff

3

REDUCING PRESSURE ON DIGITAL RESOURCES

As the complexity of the SBUHB digital infrastructure increases organically across the system it puts more and more pressure on the digital team and wider NHS service. SBUHB needs to work towards a simpler overarching architecture now to ensure we are maximising the value of our resources over the next ten years

4

REDUCING INEQUALITIES

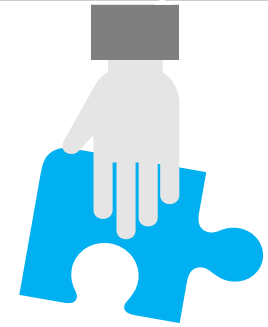
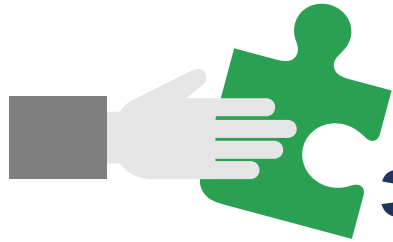
We know that minorities and underserved groups in Swansea Bay experience worse health outcomes than the general population. By investing in our data and developing more advanced analytics capabilities we can better meet the needs of those communities. We need to act now to grow those capabilities and improve the equity of outcomes for our patients by 2036

5

AVOID LEAVING IT TOO LATE

On average it takes ten years, supported by considerable investment, for an organisation to move from a HIMSS digital maturity score of Stage 1 to Stage 7 – SBUHB wants to be a UK exemplar Stage 7 by 2036 and that means investing in our system now. We outline the importance of HIMSS scores on the next slide

Having made considerable progress in recent years, SBUHB have created the perfect opportunity to deliver a single unified digital, data and technology vision for the people of Swansea Bay by 2036. But - this will only be possible if we act now!



3. Developing our Strategy

Strategy Development

In developing the SBUHB Digital Strategy to 2035 we engaged extensively with colleagues across the organisations through both group discussions and 1:1 meetings, to ensure the digital strategy was developed collaboratively and is aligned to the needs of the organisation. Adopting an inclusive approach to the development of the strategy was important to encourage buy-in as delivery of the strategy will require significant changes to organisational ways of working, with all teams taking a much more collective responsibility for digitally enabled transformation and the realisation of the potential benefits.

Our approach to developing our Digital Strategy included ...

Digital and organisation-wide surveys

1:1s with digital leaders and health board Executives

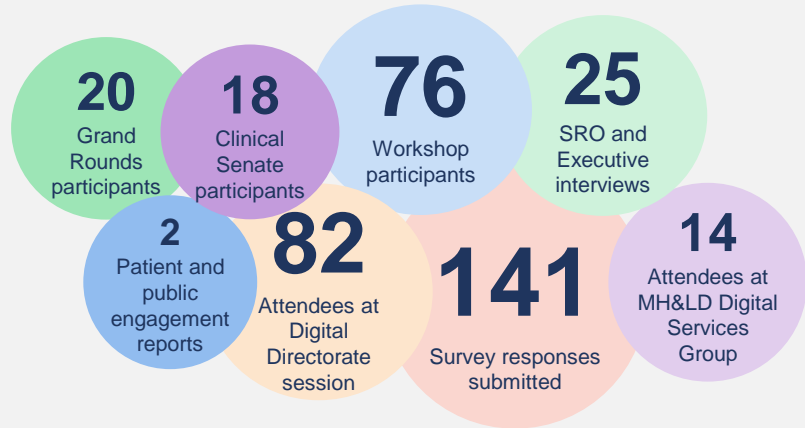
Clinical engagement sessions

Comprehensive documentation review

4-part workshop series

Working sessions for feedback and iteration

Through our engagement process we have listened to ...



Learnings from the Survey

In total, we received 141 responses from colleagues across SBUHB sharing their views on Digital and Data as well as their assessment of the extent to which Digital Enablers are currently supported. At a high-level we found that:

- Non-digital colleagues shared **positive reflections on working with the Digital Services team**, particularly highlighting the proactiveness of the team.
- Among the digital enablers, **technology and digital was the lowest rated** with large opportunities for improvement including working towards an **EPR approach** and the provision of digital services in **community and primary care**.
- **Workforce and culture was the highest rated** digital enabler, with opportunities for improving digital literacy and the adoption of new technologies. A common theme was empowering both our workforce and patients through digital solutions.
- **Non-digital staff gave notably lower assessments** across all digital enablers – the reoccurring reasons given for this included poor SBUHB wide communication and training, a lag in the delivery of benefits, and a misalignment of digital solutions to clinical needs.

The findings from the survey have been crucial in developing our baseline understanding of the state of Data and Digital at SBUHB and forming the starting point for recommendations as part of this strategy.

42% of respondents said that **improving the digital training offer** was a significant opportunity for Data & Digital

"There are huge **discrepancies in digital capability and confidence**"



"I don't think **digital is given enough strategic importance** to revolutionise the way we offer services and the way we work"

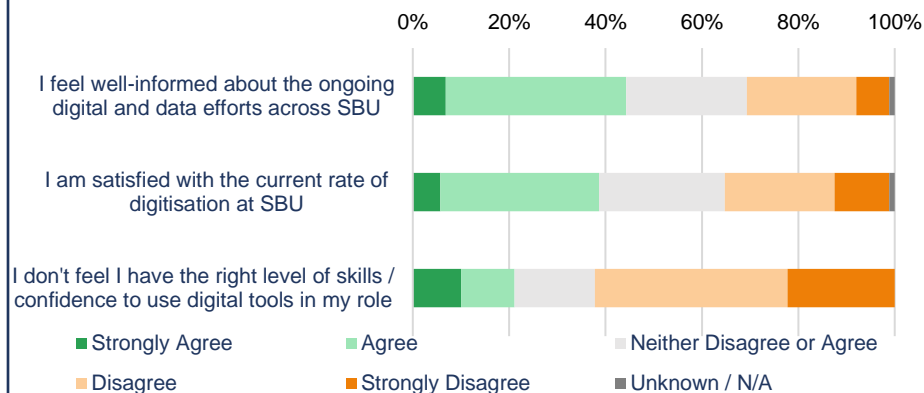
35% of respondents highlighted **integration and interoperability** of existing clinical systems as a key priority, building towards an **integrated EPR model**

"I hugely **value the relationship we have with our clinical colleagues** – we need to continue to listen to them when designing clinical services."



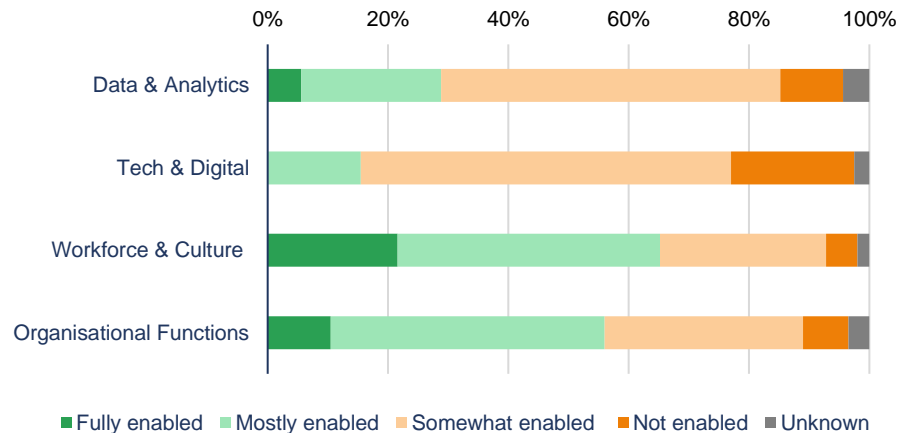
SBUHB Colleagues' Views on Digital and Data

n = 91

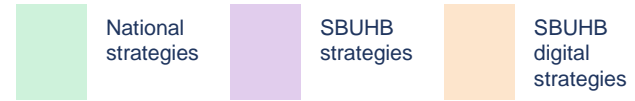


SBUHB's Colleagues' Assessment of Digital Enablers

n = 50



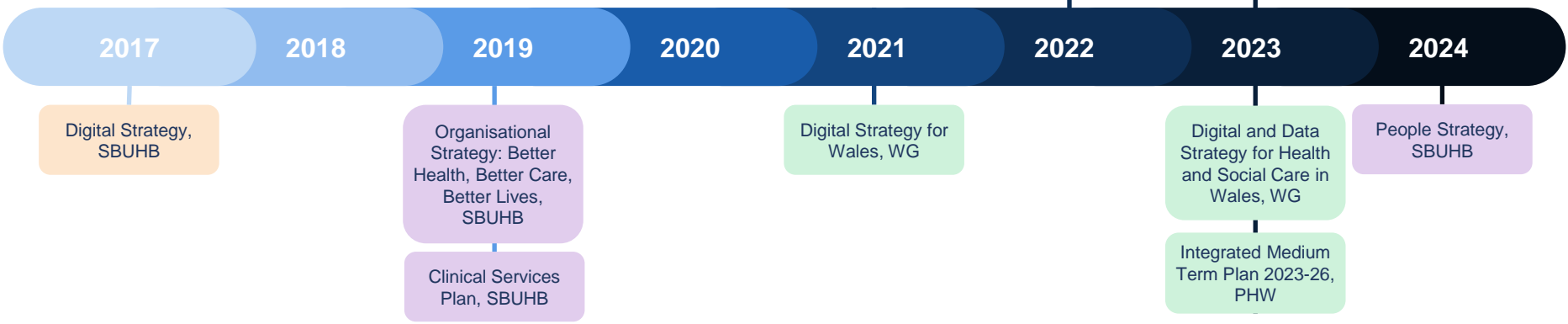
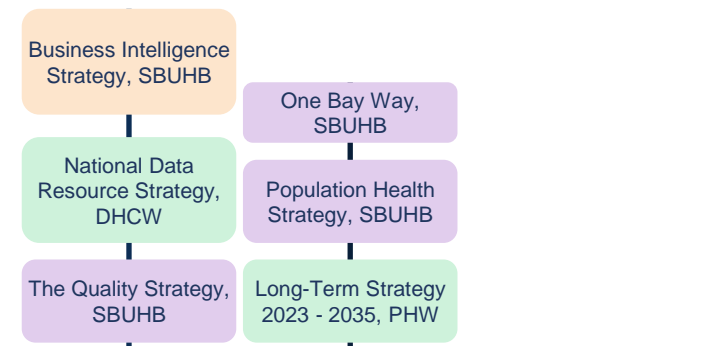
Aligning with Existing Strategies



The success of the Digital Strategy is dependent on strong alignment with both the national direction of travel, the regional priorities and the broader organisational strategy. It is crucial that we continue to develop and deploy digital solutions that are closely aligned with these wider strategies and the priorities they set out.

These strategies in conjunction with the engagement across the health board have been used extensively to develop the priorities and have acted as guiderails throughout the entire Digital Strategy development process.

The digital strategy is aligned with “The One Bay Way” setting out SBUHB’s 10-year vision to become a High Quality Organisation. This includes a relentless focus on the patient and staff at the centre of our digital services, supported by a leadership culture which encourages our staff to be supported, engaged and involved in the success of the organisation through digitally enabled transformation. As the refreshed SBUHB Clinical Services plan is developed, further alignment of the digital strategy and plans will need to be undertaken.



Working together with our partners

In order to go further faster, SBUHB needs to work together with partners at a national, regional and local level whilst also maintaining a clear view on its own priorities as an organisation.

National

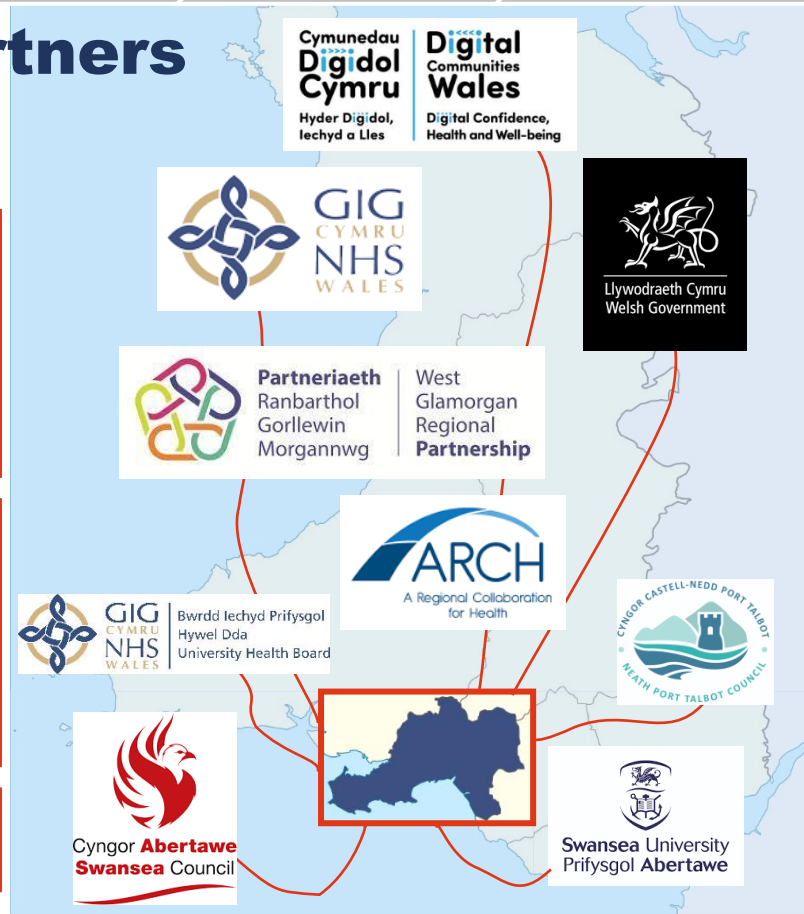
- SBUHB has historically been a leading partner in supporting NHS Wales digital programmes, with examples of local Swansea Bay innovation that has gone on to be implemented nationally
- As part of the Digital Strategy, we want to deepen our engagement with Welsh Government Digital Leads, DHCW and other NHS Wales organisation, enabling us to showcase our ideas and positively steer the digital agenda as a leading digital innovator.
- We want to work with national partners to explore new ways of working with the private sector to accelerate our digital maturity journey and deliver improved patient outcomes.

Regional

- Strengthening the links between health and social care and working closely with local authorities will be increasingly important for delivering integrated care
- Under the direction of the joint committee between SBUHB and Hywel Dda University Health Board, we will identify opportunities to accelerate digital transformation together across the region.
- We also want to grow our relationships with local higher education centres, and research organisations - bringing the benefits of their work to our patients through increased innovation and continuous improvement.

Local

- Locally, we want to focus on collaborative approaches and engagement with our clinicians, patients, non-clinical staff and other end-users during the design, development and implementation of digital solutions and initiatives.



Digital Inclusion Matters

A large minority of our population do not have the necessary access, skills, motivation and trust required to be able to utilise digital services.

Who is likely to be digitally excluded:

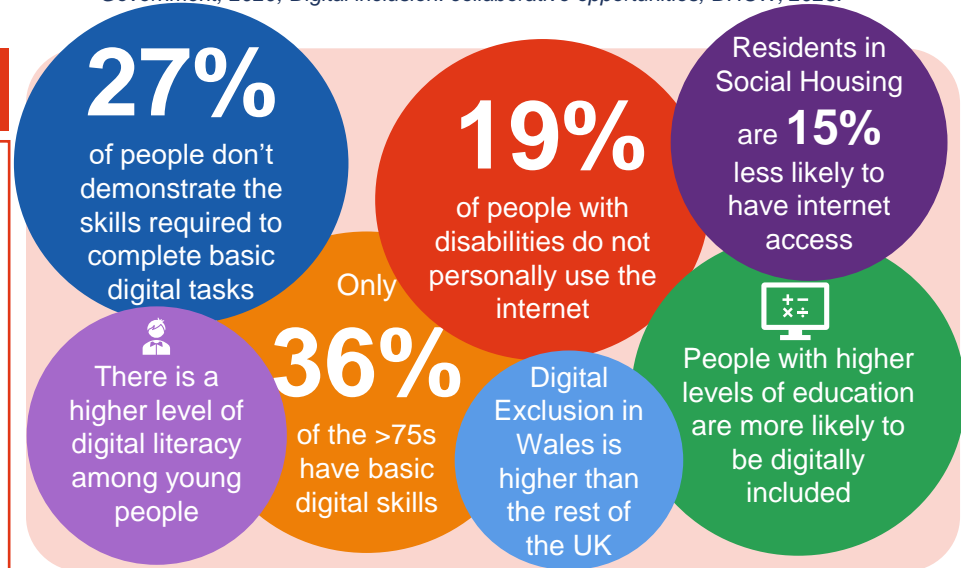
- Older adults
- People with disabilities or long-term health conditions
- Lower educational attainment
- Lower income individuals and families
- People living in rural areas
- Welsh speakers and individuals whose first language is not English
- Socially isolated and lonely people
- Homeless people

Many of these groups are likely to be the heaviest users of health and care services, so risk being left in the digital health transformation.

Implications for Swansea Bay Patients:

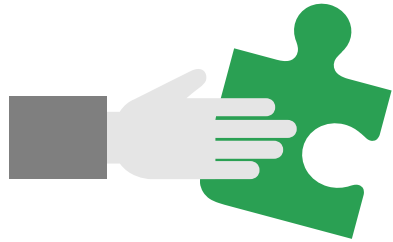
1. Our digital transformation and redesign processes must be conscious never to exclude our patients from healthcare on the basis of digital ability. This means a number of settings will need both digital and non-digital options available to meet patient need.
2. In designing patient facing digital services, we must ensure the design is as intuitive and accessible as possible (e.g. multi-lingual, device agnostic etc.) to maximise adoption. Patient facing services should be simple to use with no training.

*SOURCE: Digital Inclusion and Basic Digital Skills in Wales (2019-2020), Welsh Government, 2020; Digital inclusion: collaborative opportunities, DHCW, 2023.



Actions to Maximise Digital Uptake:

1. Evaluating digital interventions for inclusivity is critical to preventing a two-tier health system emerging, where those with poor digital access are excluded from aspects of the health services.
2. SBUHB will work together with national and local partners, e.g. Digital Inclusion Alliance Wales, Digital Communities Wales and Local Authorities, to deliver the Digital Inclusion Charter and improve the digital literacy of our citizens and patients.



4. Our Strategy



Introduction to the Digital Strategy Framework

Vision:

Our vision provides us with a call to action that guides and aligns all our colleagues under one ambitious path. Our vision also sets a high standard that all our patients can expect to receive whenever they interact with our organisation.

The Enablers:

We have identified four key enablers. These are: Data & Analytics, Technology & Digital, Workforce & Culture and Organisational Functions – all of which are intricately aligned with the vision of our Strategy. Organisational Functions encompass the SBUHB activities which are not exclusively digital in nature, yet are essential to the success of digital transformation, for example governance, leadership and finance. Initiatives and solutions targeted at these digital enablers have a transformative effect on our entire organisation, driving progress across the Health Board. All four enablers are fundamentally interlinked. Therefore, we must prioritise all enablers to ensure the success of our strategy.

SBUHB's Digital Vision

Principles

5 clinical programmes

Digital Services

Organisational Functions

Principles

The five principles act as our central guiding themes. They inform our vision for a 'digital first' organisation and are the fundamental criteria for evaluating any initiative which is conducted as part of this overarching strategy.

Programmes:

There are five high-level programme areas. Digital Services influences and collaborates with each of these. They represent the broad areas where our strategy will be implemented through solutions based on our digital enablers. We believe these represent the substantially different environments of the NHS where digital solutions are likely to show the greatest variety. However, it is crucial to remember that our citizens often use multiple programme areas simultaneously. Our strategy sees these areas as part of a seamlessly integrated patient journey with digital at the core of our service provision.

The Digital Strategy Framework

Vision

The aspirational outline of the future state

To improve the health and well-being of the population of Swansea Bay by harnessing the power of digital technology and digital transformation

Principles

The foundational values that drive the success of the strategy

Collaborative

Innovative

Inclusive

Flexible

Sustainable

The Enablers

The core pillars of the strategy which will deliver the overall vision

Data & Analytics
Goal and Priorities

Technology & Digital
Goal and Priorities

Workforce & Culture
Goal and Priorities

Population
Health and
Wellbeing

Primary Care
and Care Closer
to Home

Mental Health
and Learning
Disability

Planned Care

Unscheduled
Care

Programme Areas

Key areas of work

Digital Services

Organisational Functions

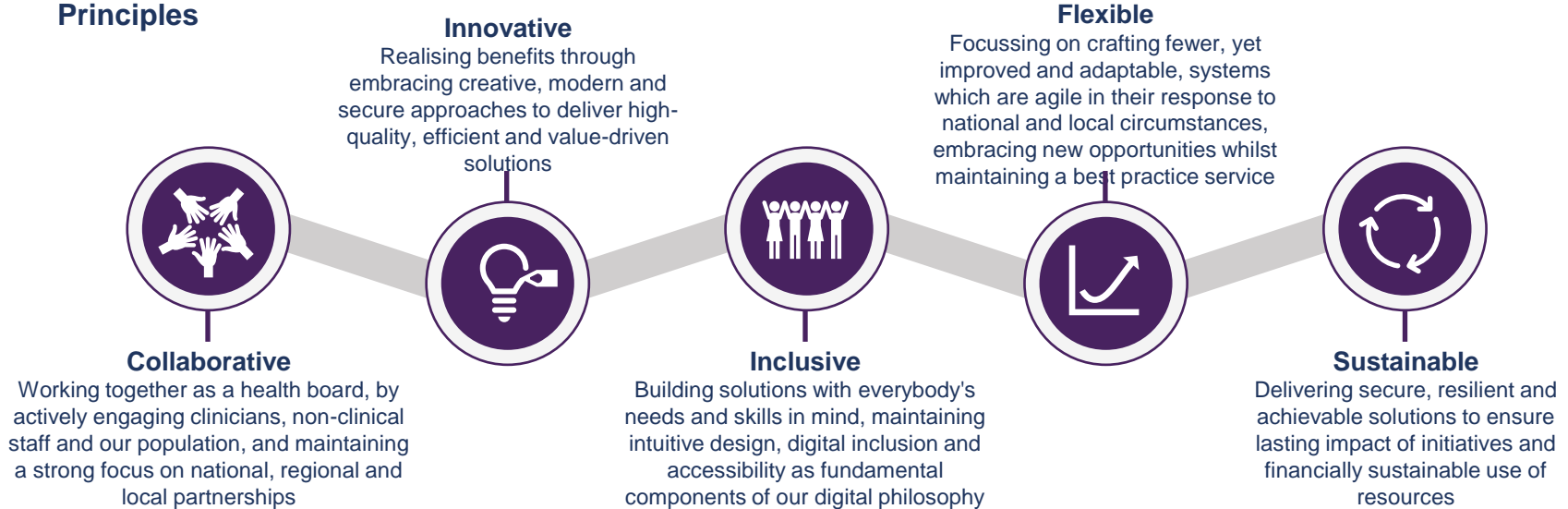
e.g. governance, leadership, procurement and finance

The Strategy Vision & Principles

Vision

To improve the health and well-being of the population of Swansea Bay by harnessing the power of digital technology and digital transformation.

Principles



Clinical Programmes as Vehicles for Delivery

Our patients often require a range of clinical services on their care pathway. In practice these clinical areas are fundamentally interconnected, but by using discrete categories we can better coordinate activity, ensure ownership of workstreams, and allow for more targeted interventions and initiatives. However, it is important to acknowledge that our digital solutions commonly affect multiple clinical programmes simultaneously.



Population Health & Keeping Well

Delivering care with a strong emphasis on well-being, self-care and prevention - supporting our population in maintaining good health.

We need to deepen our understanding of the health and care needs of our population, reducing inequalities in health and care quality and outcomes, and introducing targeted interventions that improve population outcomes.



Primary Care & Care Closer to Home

Delivering care in primary care and community settings and optimising these resourcing models to deliver care that improves patient outcomes.

Working better together as an integrated health board, to transition care out of hospitals and into the community or people's homes to ensure care is delivered in the best possible setting for each individual.



Mental Health & Learning Disability

Improving the emotional and mental wellbeing of our population, through supporting choice and responsibility, where hospital-based care is the exception rather than the norm.

Delivering MH & LD services that minimise barriers to good mental and physical health and ensuring we make reasonable adjustments in how we provide health services



Planned Care

Delivering scheduled health and care services in such a way that patients are seen at the 'right time, by the right person, in the right place' including a focus on 'my home first' where possible.

This includes day cases, inpatient care and outpatient services.



Unscheduled Care

Creating 'one unscheduled care system' which clearly supports patients and communities in knowing where and when they can get the care they need in an emergency.

All our front-door services are included within unscheduled care, including the Emergency Department, ambulatory, short stay and specialist services.



Digital Services

Taking ownership of the overall direction and monitoring of digital delivery on behalf of the Health Board, while working together with clinical programmes and empowering them to own and deliver service-led transformation through digitally enabled solutions.

Our Clinical Programmes in Practice

Current needs

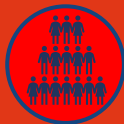


As a patient I want healthcare to be more accessible, efficient and personalised to allow me to manage my own health and wellbeing



As a clinician I need seamless access to accurate, real-time patient data to allow me to make more informed decisions at the point of care

Clinical Programmes



Population Health and Wellbeing

Future Experience



I have personalised care using intuitive digital technology which helps me to be proactive in managing my wellbeing



I am able to detect diseases earlier through data-driven interventions which has eased the pressure on frontline services



As a patient I want care to be more accessible, with technology that allows health professionals to care for me in the community



As a clinician I want digital tools that will support remote monitoring and virtual consultations, allowing me to provide care closer to home



Primary Care and Care Closer to Home



My Care is consistent, convenient and close to home. I have accessible care that is personalised to me



I can provide patient-centred care closer to home with digital technology that enables AI-driven triage, remote monitoring and seamless integration. I have access to information I need wherever I am.



As a patient I want easier access to support, with easy communication with my care provider. I would like personalised resources to help me feel in control of my care



As a clinician I would like digital tools to support remote consultations, real-time data sharing and AI-driven insights to help monitor patient progress to allow early intervention



Mental Health and Learning Disability



I can self refer via online assessments, with more flexible treatment options. AI powered digital tools will tailor my treatment based on my needs



I have access to integrated digital records that improve communication with GP's, social services and other agencies, with the ability to provide care remotely and flexibly



As a patient I want to be able to book an appointment, receive reminders and have better communication with healthcare professionals to track treatment progress



As a clinician I want streamlined clinical workflows that provide real-time access to patient records, to enhance patient care and reduce administrative workload



Planned Care



I am able to book my own appointments, and communicate with health professionals via digital apps regarding my follow up care



Remote monitoring and virtual follow ups helps me to monitor patients without the need for hospital visits. AI decision support helps me to identify risks and personalise treatment plans



As a patient I want faster more efficient emergency care where health professionals have quick access to my medical history



As a clinician I want instant real time access to patient information enabling faster more accurate decision making



Unscheduled Care



As a patient I can arrive at ED and all of my past medical history is available, I won't have to wait long to be seen as digital tools have enabled faster, more accurate triage and care. I know the next steps in my care so, I am reassured and can prepare to go home.



A patient's data is always available, accurate and secure. I am able to provide faster more efficient care, through streamlined processes and digital tools that support clinical workflows

The Enablers

Based on engagement, we created a framework for digital enablers to assess SBUHB and the constituent programmes.

Workforce & Culture



- Becoming a digital first organisation
- Clinically led digital transformation
- Workforce's digital skills, awareness and confidence
- Digital and clinical collaboration
- Digital culture and ways of working
- Digital and data teams' development
- Recruitment and retention of digital staff

Tech & Digital



- Technology and equipment
- Clinical software and platforms
- Enterprise Architecture and Design Authority
- Integration and interoperability
- Patient facing digital services
- Cybersecurity and resilience
- Workforce and administrative software

Data & Analytics



- Data exchange and sharing
- Business Intelligence
- Data collection and storage
- Data standards

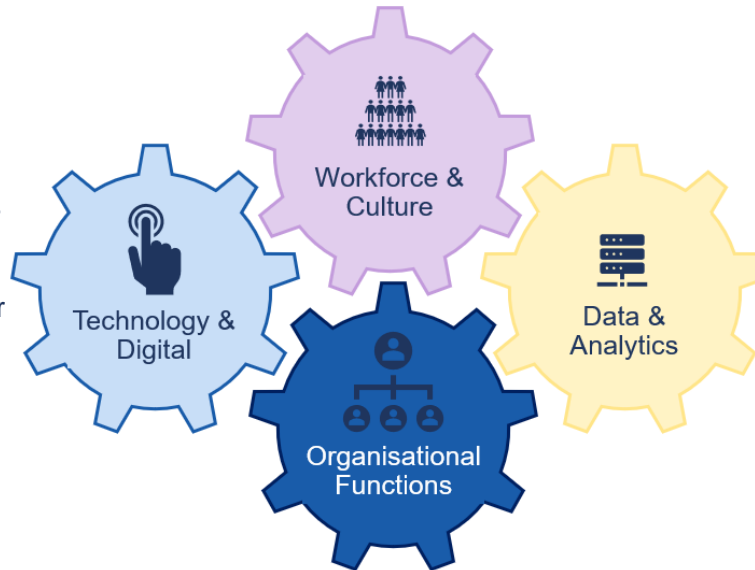
Organisational functions

- Business cases, funding, procurement and contract management
- Partnering with national programmes and regional partnerships
- Programme evaluation, benefits realisation, governance and information governance
- Strategy, leadership, communication and change management

The Enablers: A Whole System Approach

Workforce & Culture: The pre-requisite of an excellent digital organisation is a confident and supported workforce. In order for innovations in data, analytics or time- saving technology systems to be effective, we need our staff to feel certain that they have the skills and training needed to realise these exciting outcomes for staff and patients.

Technology & Digital: The engines of our strategy are powerful, streamlined digital systems and technology, of increasing maturity and complexity, which will benefit both patients and colleagues. We will operate in innovative new ways, taking full advantage of cloud-based infrastructure improving resilience, security and functionality requiring more complex financial management. However, having fewer streamlined systems will reduce the complexity of the contracts we engage, making the most efficient use of resources



Organisational Functions: Successful delivery of service-led transformation will be dependent on organisational functions working efficiently to support progress. This means that clear governance routes, robust business case practices and tight financial oversight, supported by effective change management is critical to ensure a clear view of performance and benefits as well as successful engagement and collaboration with national programmes

Data & Analytics: Our organisation will realise tangible benefits from using data to generate insights that will increase the health of our citizens whilst relieving pressures on our staff. This requires a greater collaboration in which our clinical colleagues feed-forward into the design and iteration of our digital environment. The ability of our clinical systems to deliver improved patient outcomes hinges on the quality and availability of data and analytics.

Workforce & Culture: Overview



Workforce & Culture

We will cultivate a digitally inclusive culture, where we work collaboratively with patients, clinicians and non-clinical colleagues to create effective and efficient services.

Current Challenges

- Inconsistent levels of digital and data literacy
- Attraction and retention of digital expertise
- Resource constraints and limited technical support coupled with limited training capacity can cause delays in the implementation and adoption
- Change management is hard and requires incentivised adoption of new practices
- Digital and clinical teams often work in parallel rather than in an integrated way

Desired Outcomes

- Staff have increased confidence and feel supported to adopt a digital first mindset
- All staff have the right amount of digital and tech support, in the right place and at the right time
- Staff are empowered to deliver service-led transformation enabled and supported by digital and clinical teams have joint ownership of digital solutions at every process stage

Key Enabling Capabilities

Change management

Communication and engagement

Digital leadership

Priorities

1. Creating a culture of digital innovation across the organisation and making the digital team at SBUHB a desirable place to work and progress one's career
2. Enhance the showcase of benefits of data and digital, communicating positive outcomes for both patients and staff to encourage adoption of digital solutions
3. Focus on improving ways of working between clinical-facing and digital teams creating a joint ownership of digital systems throughout the health board
4. Grow staff confidence and capability in data and digital through enhanced training and development programs that maximise impact and improve retention, while addressing the need for 24/7 support

Solutions

Digital Co-production and Innovation Model

Developing an SBUHB delivery framework that outlines how digital services, end-users and the broader health board come together to collaborate, pilot and implement new digital innovation in the process of designing and delivering service-led digital transformation.

Digital Training, Literacy & Support

Developing an accessible, high quality modular training pathway for the entire health board staff, which provides a clear development trajectory for staff across the organisation to improve our digital skills - interfacing with a broader digital support offer, digital induction packages and cloud adoption training ensuring integration of digital training into existing clinical training arrangements.

Digital Workforce Strategy: Recruitment & Retention

Developing a comprehensive workforce strategy that sets out the workforce requirement to deliver and sustain the digital transformation including the recruitment and establishment of a Clinical Digital Leadership team with the responsibility of leading the Clinical Design Authority - establishing a strategy to increase the retention and recruitment of digital services staff by reviewing the employee value proposition and ensuring opportunities for progression, including protected learning time and regular development time with managers

Clinical Digital Champions and Joint Ownership

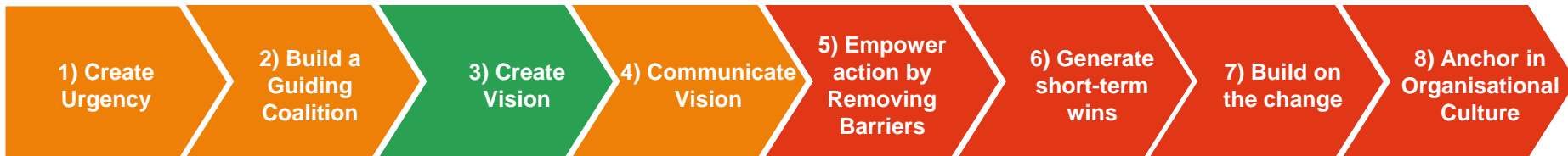
Establishing a network of 'clinical digital champions' across the organisation to champion the digital vision, provide support and feedback on challenges and opportunities supporting joint ownership across projects – service led digitally delivered. Embedding Digital Business Partners within the service delivery groups

Kotter's 8 Step Model – To support Transformational Change in SBUHB

Kotter's 8 step model can effectively guide the evolution of SBUHB's workforce and culture to support digital transformation. Anchoring new approaches in the culture of the organisation will ensure digital transformation is health board wide and embedded into everyday practices, leading to sustainable change and improvement.

The chevrons below show **Kotter's 8 step model for successful transformation** in the NHS alongside an initial RAG rating for SBUHB's current progress against each step as of February 2025

- SBUHB has begun to build a **sense of urgency and to build a coalition of the willing around the future vision** and this now needs to extend, broadening out to reach more colleagues across more teams so that we can build a **cultural commitment to digital transformation**.
- This will require both Executive support and endorsement as well as a willingness from SDGs and other service teams to partner with Digital Services and take **shared responsibility for the realisation of the desired benefits**
- This Mobilisation plan will support SBUHB to continue to build on steps 1 – 4 whilst making concerted progress against steps 5) and 6)



Data & Analytics: Overview



Data & Analytics

We will leverage secure, trusted and insightful data to empower our colleagues to increase their provision of efficient high-quality care, resulting in improved patient outcomes and population health

Current Challenges

- Inconsistent data standardisation and low data quality
- Challenges in delivering BI at scale
- Limited data-sharing across SBUHB organisations as well as local, national and regional partners
- Increased volume of data and systems

Desired Outcomes

- Our staff confidently utilise comprehensive, standardised and high-quality data
- Data insights are core to informing clinical and operational decisions to improve patient outcomes
- Our patients receive care that is better informed by their health and care information and spend less time repeating themselves

Key Enabling Capabilities

Data Governance and Collaboration

Training & Support

Digital leadership

Priorities

1. Increase digital literacy to increase the use of data to inform clinical and operational decision and for predictive health analytics to improve population health management
2. Improve data standardisation and quality using clinical data standards, and digitisation of data collection by moving towards a paper-light/paperless service
3. Expand partnership working to support more extensive data sharing and improve data accessibility across SBUHB, including addressing complexities of IG
4. Encourage consistent use of data analytics with a cloud first approach to increase real-time understanding of clinical outcomes, tracking of KPIs and monitoring of strategic indicators

Solutions

BI Capability

Establishing a best-practice Business Intelligence capability. Core to this a centralised resource capable of analysing trends and providing predictive insight into population health management, organisational finance and workforce, and makes best use of the opportunities that AI present for data & analytics. This needs to be coupled with an increase in the digital literacy and adoption of BI capabilities throughout organisation.

Cloud Strategy

Migrating, at pace, to a cloud-first compute and storage solution throughout the entire health board, underpinned by a robust Cloud Strategy, which recognises the needed for some continued on-prem compute and storage for business continuity purposes. Including conducting an infrastructure review with the view of creating the best environment available to deliver data and analytics. Establishing cloud as an underpinning principle in the development and procurement of digital systems.

Consistent Data Standard

Implementing a consistent data standard across the Health Board to allow easier data sharing between clinical systems, programmes and partner organisation and increase the potential for powerful and insightful analysis. A consistent data standard underpins the success of many of the strategy solutions including CDR and EPR implementation.

Care Data Repository

Delivering a data repository for SBUHB's health and care data, linking data from across the organisation, helping to create a full picture of the health of patients and the population. This would allow data to be inputted once but used many times. The CDR is key in placing SBUHB as a key partner of the NDR national programme, shaping and influencing both the development and delivery of the NDR.

The Future of Artificial Intelligence

Context

There are huge opportunities for Artificial Intelligence (AI) to revolutionise service delivery at Swansea Bay Health Board over the next decade, enhancing both clinical delivery and administrative functions for a more enhance communication within the healthcare system. Swansea Bay Health Board will become a smarter, more efficient, and patient-centric healthcare system by embracing AI. However, AI can only be utilised if information is captured and stored electronically.

Clinical Decision Support (CDS)

AI powered clinical decision support can enhance clinical delivery by automating complex decision-making processes, making clinical delivery more efficient and precise. Machine learning algorithms will analyse medical data and identify patterns, offering more personalised data driven insights.

Personalised Medicine

AI will also play a key role in personalised medicine, predicting individual responses to treatments and minimizing side effects. AI-powered virtual assistants will support clinical staff, allowing them to focus on complex patient care. Virtual assistants will also help patients adhere to treatment plans and improve their own health and well being.

Streamline Administrative Functions

AI will optimise resource allocation, reduce operational costs, and enhance patient experience by automating repetitive tasks such as appointment scheduling, note taking, outcome letters etc.

AI-driven analytics

AI will provide insights into patient flow and resource utilisation, ensuring efficient allocation of staff and equipment, reducing wait times, and improving satisfaction.

Early Diagnosis & Screening

AI powered imaging tools can assist in detecting diseases earlier with greater accuracy, improving patient outcomes. Predictive analytics can analyse patient data to predict the likelihood of patients developing chronic conditions, enabling proactive intervention.

Advanced natural language processing

(NLP) tools will enhance communication within the healthcare system. Electronic health records (EHR) will be automatically updated, enabling informed decision-making and cohesive care delivery.

Governance

AI Commission for Health and Social Care in Wales will play a pivotal role in shaping the future of AI within NHS Wales. The Commission will provide guidance on the safe responsible, and ethical adoption of AI technologies. There will be a focus on creating an enabling environment where AI can enhance patient care, streamline operations and modernise services.

Technology & Digital: Overview



Technology & Digital

Empower our patients to make informed and meaningful choices about their health and care, while simultaneously empowering our staff to work more efficiently, safely and effectively for our patients.

Current Challenges

- Patients lack support to manage their own health
- High volume of systems is challenging for users and hinders ability of our clinicians to get a single view of an individual patient
- Some clinical services lack a consistent clinical record and have continued reliance on paper-based systems
- Existing systems are not consistently intuitive and don't meet all the needs of our clinicians
- Infrastructure needs to be resilient and up to date to ensure secure and efficient digital technology

Desired Outcomes

- Patients are empowered to engage and manage their own care and well-being
- Patients receive care that is personalised to them and informed by their entire clinical background
- Clinicians access a minimal number of clinical systems, and can easily view and find all the relevant information

Key Enabling Capabilities

Cyber Security

On-Prem / Cloud hosting

Data standards

Priorities

1. Replace and consolidate existing systems, optimising what already exists and ensuring meaningful integration between systems that will remain post consolidation
2. Enhance patient-facing digital solutions to empower patients and residents to manage their own care whilst also promoting digital inclusion
3. Focus on intuitive user centered and collaborative solutions to provide an opportunity to transform ways of working
4. Adopt a consistent clinical record system in primary and community care and MH & LD, while enhancing integration of existing clinical systems, with a view to building a single view of a patient's record

Solutions

Integrated EPR Model

Implementing an integrated EPR model across the entire health board with a strategy that includes an approach to incorporating interim clinical systems such as those required for MH& LD and primary and community care. The EPR model consolidates multiple patient record functions into a single front facing solution. Where possible, users can access the EPR solution through all existing clinical systems, and where this is not possible, these clinical systems are replaced or meaningfully integrated.

Patient-Facing Digital Services

Committing to improving the offering of patient-facing digital services to empower patients to manage their care, including the ability for patients to manage their own appointments, interact with clinicians and report their health and care outcomes in line with Value Based Healthcare priorities. Working towards establishing the NHS Wales App as the single front door for patients in Wales.

Single-sign-on Process

Implementing an identity management solution which ensures staff only need to log-in once to access all the systems they need for their session.

Filling Core Digital Gaps in Clinical Programmes

Replacing and consolidating legacy paper systems across mental health, learning disabilities and care closer to home into a new consistent digital clinical record system. This will ensure patient information can be more reliably accessed and to transform ways of working, delivering benefits through moving away from paper-based processes. Additionally, addressing the need for dependable IT equipment and hardware for our clinicians.

Key Considerations for the EPR Strategy and final EPR Model

Compatibility and interoperability:

- No EPR system has full clinical or administrative functionality and so designing an EPR strategy means balancing specificity to your needs and what can be achieved with efficient implementation and cost and tailoring.
- Standardised data across SBUHB will allow improved communication between different systems making it easier to identify biggest gaps in functionality
- An EPR provides clinicians with seamless access to all relevant patient information at the point of care with a single, easy to use system

The Product Lifecycle:

- The EPR strategy will clearly define expectations around delivery timelines including the implementation of any third party products we may procure
- This will include understanding what aspects of the EPR model can be implemented in parallel and what work will need to be staggered, how updates are made during product use as well as the estimated operating life before replacement is needed (unlikely to be more than 10 years)

Obsolescence in Parallel Systems:

- The EPR strategy will set out what clinical systems currently in use the new EPR model will replace over time and how interim solutions are incorporated
- This requires clear understanding of contract cycles and upfront planning for when divesting and turning-off duplicative systems could be possible
- It's possible that some double running will be required as systems are established to avoid staff losing functionality and this must be built into the EPR strategy where required

Maintenance & Workforce implications

- The EPR strategy will need to be explicit about the size and skills of the workforce needed for delivery including the procurement, migration and maintenance to any new third party systems
- Recurrent maintenance costs will then need to be built into the SBUHB financial baseline

Cost Profile:

- Third party products tend to have higher upfront costs with in-house solutions taking longer to implement and incurring additional costs over the longer term
- Developing in-house means we may capitalise some of the development costs, compared to the predominantly revenue costs if purchasing a third-party solution
- Where are the best opportunities for savings following successful implementation and how will we measure them

Potential EPR Capabilities:

Compliance alerts	Bedside Observations
Pre-operative Assessment	Maternity
Patient administration	Nursing Care
Workflow management	Patient flow
Records, plans and assessments	Ward Board management
ePrescribing	Mental Health Information

System Character:

- Single 'off the shelf' solutions bring a risk of vendor lock-in making it difficult to change approach in the future
- Fully in-house enterprise solutions take longer to implement and have higher workforce and maintenance costs overall
- We will likely adopt a balanced approach with some customised third party components and other elements developed more bespoke in-house to meet SBUHB specific needs

Partnership Opportunities:

- Alongside the development of our EPR strategy and the delivery of our future EPR model we will continue to liaise closely with national programmes aligning the lifecycle of our solutions to national programmes wherever possible
- SBUHB also hope to act as an early innovator for Wales demonstrating the benefits and potential of an EPR approach in supporting improved outcomes

Organisational Functions: Overview

Organisational Functions

We will ensure our organisational wide processes and governance arrangements enable service transformation and the adoption of new digital technologies for the benefit of the people of Swansea Bay.

Current Challenges

- Organisational process do not currently support digitally enabled transformation
- Funding and financial frameworks are not designed to manage the shift towards Cloud and Software/Infrastructure as a Service commercial models
- Longer term goals are not able to be prioritised due to urgent immediate need of service delivery
- Health organisations are known to be a target for cyber criminals

Desired Outcomes

- The health board maximises the outputs from Contracts and Strategic Partnerships
- Services can transform using the flexibility of cloud and software as a service commercial models
- Solutions are seamless and meet end user needs whilst being sustainable and resilient
- The Health Board can prioritise investment effectively and measure impact of transformation consistently

Key Enabling Capabilities

Change Management

Clinical Leadership

Digital leadership

Priorities

1. Ensure there is a culture of transformation enabled by digital solutions throughout the organisation and the impact of transformation is consistently measured.
2. Determine the balance between how the long-term goals of SBUHB and the immediate requirements can be managed to ensure resources are prioritised appropriately.
3. Enter into a long-term strategic partnership with a supplier to allow a modular implementation of a single core EPR within secondary care
4. Understand the financial impact and opportunities of the move towards Cloud and Software as a Service solutions and how they will be managed.

Solutions

Benefits Framework

Development of a Health Board-wide benefits framework to provide clear and consistent metrics to ensure that all transformation initiatives are aligned with the Health Board's broader strategic objectives. The benefits framework will be embedded across performance management throughout SBUHB to provide a clear and consistent way to measure the impact of service transformations; track progress, of delivery; demonstrate value; ensure accountability; and enable informed decision making and prioritisation for investments.

Procurement and Contract Management

Establish an appropriate procurement model to enable the modular approach to the procurement of the EPR. Develop or secure expertise in the development and management of cloud and software as a service procurements/contracts to to ensure scalability, data security, information security and compliance with healthcare regulations. Effective contract management and partnership arrangements will have to be established with suppliers.

Financial Management

Appropriate financial management arrangements will be put in place to ensure that, as the shift to the cloud moves the organisation to a "pay as you go model" for digital solutions and services, services are able to benefit from the flexibility that this will provide to improve services whilst maintaining appropriate financial control.

Governance Arrangements

A Technical Design Authority (TDA) will ensure the design and architecture of digital solutions, are scalable, secure, and interoperable, providing expert guidance on technology choices whilst also informing the development of a robust cyber plan to mitigate the risks associated with digital transformation. A Clinical Design Authority (CDA) will oversee the design and implementation of digital solutions to ensure they meet clinical needs, improve patient care, comply with medical regulations and are underpinned by clinical workflows.

Managing the Cyber Security Risk as an Organisation

Protecting SBUHB against the ever-increasing sophistication of cyber attacks is crucial to guarantee uninterrupted availability and delivery of all our digital solutions. Without robust cyber security in place the safety, quality and timeliness of the patient care we deliver is at risk.

The Cyber Assessment Framework

Developed by the National Cyber Security Centre (NCSC), and used by Welsh Government and DHCW, the Cyber Assessment Framework (CAF) is a comprehensive approach to assessing the extent to which cyber risks are being managed.

Objectives



The most common types of cyber crime (phishing & malware) make up 60% of cyber crime

Estimated cost of cyber crime to Welsh public services is **£113m / year**

Around **40% of major incidents** reported to NCSC were aimed at public sector bodies

*SOURCE: Centre for Digital Public Services, Welsh Government, 2022

Why is Cyber Security so important?

- Reduced risk of successful cyber attacks means less risk of:
 - Loss of access to digital systems / data
 - Loss / unauthorised access to information
 - Fraudulent transactions and financial loss
- Better knowledge of data privacy laws empowering us to go further with our data
- Reduced risk of legal challenge from incorrect application of data privacy laws

To address this at scale we will need to work in partnership with partners such as the Welsh Government, DHCW and the NCSC, among others.

Cyber Security Commitments:

1. Committing to maintaining and increasing proactive cyber protection and prompt responses
2. Continuing to assure, test and monitor live and developing services, ensuring robust, secure and resilient services across SBUHB
3. Educating all our staff in cyber security, equipping them with the information to help mitigate cyber risks and protect sensitive information
4. Developing a robust Cyber Security plan, accompanied by a committed cyber security investment plan

Our Successful Outcomes

How will we know that our strategy is working and where should we expect to see benefits?

Our framework identifies the 6 key outcomes that a successful digital strategy will achieve for Swansea Bay. Each of our proposed digital solutions must work towards one or more of these outcomes to deliver impactful benefits for citizens, patients, clinicians and system colleagues.

- 1. Well-led & Efficient:** Inclusive, collaborative and compassionate leadership drives the strategy forward using an evidence-based understanding of the most effective use of resources to support our teams to deliver digitally enabled service-led transformation. Leadership ensures the strategy capitalises on the increases in efficiency that digital maturity can deliver.
- 2. Secure & Resilient Processes:** We earn the upmost trust of our citizens by maintaining robust cyber security and handling their data securely and in accordance with the Caldicott principles. Our digital strategy ensures that we are forward facing in identifying and pre-emptively responding to safety alerts and cyber risks to ensure continuity of service.
- 3. Support Staff:** Our staff are the strength of our organisation. Our strategy increases digital literacy and confidence across our organisation, enabling colleagues to work optimally with data and digital solutions to improve the care they deliver for patients.
- 4. Better Care:** Our digital and data initiatives enable us to provide better care to our citizens, which is safer, higher quality and timelier, leading to better outcomes, delivering better value and improving efficiency. Digital and data solutions enhance services for patients, reduce unwarranted variation and positively transform care delivery.
- 5. Healthy Citizens:** We make best use data and digital services to improve the health and wellbeing of our population, using data insights and analytics to make data-driven decisions that improve health outcomes, improve access for underserved communities and reduce health inequalities.
- 6. Empower Patients:** Patients are at the centre of our mission. Our digital strategy empowers patients to play an active and meaningful role in managing their health and keeping well.



Tailored for Swansea Bay and adapted from NHS England's 'What Good Looks Like Programme'.

Potential Obstacles and Solutions

Obstacles

Obstacle 1: The Digital team is already stretched very thin and will need to free up some capacity to deliver this work successfully

Obstacle 2: Continuing to align and partner effectively with national, regional and local initiatives is time consuming

Obstacle 3: Securing and maintaining buy-in and commitment from across the whole organisation is challenging however, this is imperative given the prominent role the strategy work needs to play in SBUHB's workload for the next decade

Obstacle 4: It can be difficult to establish clear expectations on what's achievable to what timelines across SBUHB so that the organisation goes on the journey together

Obstacle 5: Sometimes siloed management of digital initiatives without a comprehensive overarching digital governance structure and sufficient technical and clinical input, increases the risk of fragmented strategic components

Obstacle 6: Organisational pressures and a historic approach to IT has resulted in Digital Services leading projects and pushing digital initiatives on their own. The organisation must now buy-in to digital as a team sport, each understanding our role in delivering the benefits together

Our Solutions Checklist

Solution 1: The digital team must promptly conduct an internal mapping to understand the full range of work they're currently supporting. This will enable them to prioritise their workload based on what aligns with the delivery of necessary BAU and the delivery of the strategy

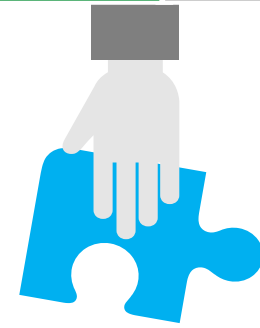
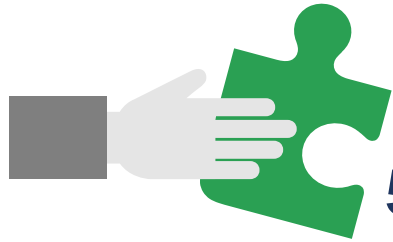
Solution 2: SBUHB must consider how it best organises its resource to support working with its partners and delivering shared objectives. Maintaining and growing these relationships will be crucial as the complexity and scope of digital projects increases in the coming years

Solution 3: The digital team must engage effectively with the executive teams to help them understand how the strategy will drive benefits across their portfolios and why the strategy needs to be seen as a shared organisational mission with robust investment

Solution 4: The digital team must quickly establish a regular interface with the SBUHB board and wider colleagues to set clear expectations of what the digital team intends to do and the resources requested alongside strategic communication

Solution 5: Effective governance processes and review forums are needed to support the delivery of the programme at pace. Given that multiple digital solutions will be delivered simultaneously, governance structures, including technical assurance, need to be streamlined to allow delegation of responsibilities to appropriate delivery teams.

Solution 6: A new process of co-ownership and delivery of digital initiatives needs to be designed and implemented, clearly setting out the roles and responsibilities of digital and non-digital teams in delivering service-led transformation supported by digital initiatives to improve outcomes for the people of Swansea Bay



5. Investment & Benefits



Delivering a Sustainable Future for Swansea Bay Health Board

The Digital Strategy will require a significant increase in investment of resources into digital solutions and ways of working, with anticipated annual expenditure on digital solutions expected to double during the next 10 years. **Funding requirements will be identified via the IMTP process and justified via local and national business cases as appropriate.**

Significant cash releasing savings will be required to ensure the delivery of sustainable high-quality services to our population.

Investment decisions will have to be taken throughout the strategy period, supported by the appropriate governance, that will influence the pace and scale of change.

Delivery of the Strategy will allow for more integrated solutions, leading to:

- a more streamlined experience for users
- reduced maintenance load for digital teams,
- improved data security and system resilience in compliance with the '5 Safes' framework
- reduced financial risk of overrun across multiple contracts

Public / societal benefits

- Improving Patient Care Access: Facilitating easier access to healthcare services, particularly benefitting those who experience barriers in accessing face-to-face services
- Improving Population Health: Using digital tools and insights to monitor population health trends, enabling timely responses as well as delivering patient-facing digital services to improve the health of our citizens
- Raising the Bar for Digital Provision in Wales: Promoting digital innovation and progress across Wales through leading on implementing the most exciting and innovative solutions
- Strengthening Research & Innovation: Expanding the availability of data for research endeavours will drive long-term improvements in patient care and population health

Financial cash-releasing benefits

- Reducing the Lifetime Cost of Care: By using digital and data to improve the health and wellbeing of the population we care for, as well as improved outcomes for our patients, will reduce avoidable admissions to hospital and enable step-down care to happen more quickly
- Prioritising Delivery of Existing Systems: Rationalising and prioritising the delivery of existing systems will lead to some cost savings over time and free up the capacity of our digital team to deliver other solutions
- Reducing Costs from Paper Records: By transitioning to a paperless / paper light service less money will be spent on printing and postage of paper records and letters

Qualitative benefits

- Empowering Patients: Creating digital services which empower patients to actively and meaningfully engage and manage their health care thereby improving the patient experience and their outcomes
- Empowered Healthcare Professionals: Meeting the user needs of our clinical professionals to equip them with the tools and skills to deliver improved care for our patients
- Improved Patient Experience and Outcomes: Delivering digital and non-digital health and care services, improving the quality, safety and timeliness of the care our patients receive improving both their care experience and their care outcomes
- Increased Healthcare Equity: Addressing health inequalities and disparities in terms of access and outcomes for the Swansea Bay population

Financial but non-cash releasing benefits

- Delivering a Sustainable Service: Providing health and care services which are sustainable - environmentally, financially and operationally
- Improved Clinical Efficiencies: Enabling the use of data, insight and intelligence to iterate, improve and innovate digital and non-digital services thereby increasing the efficiency and efficacy of care delivery
- Delivering Operational Efficiencies: Enhancing the use of data and digital systems for operational purposes, will reduce the burden of administrative processes and allow us to better optimise the use of resources

Indicative Investment Requirement for The Digital Strategy

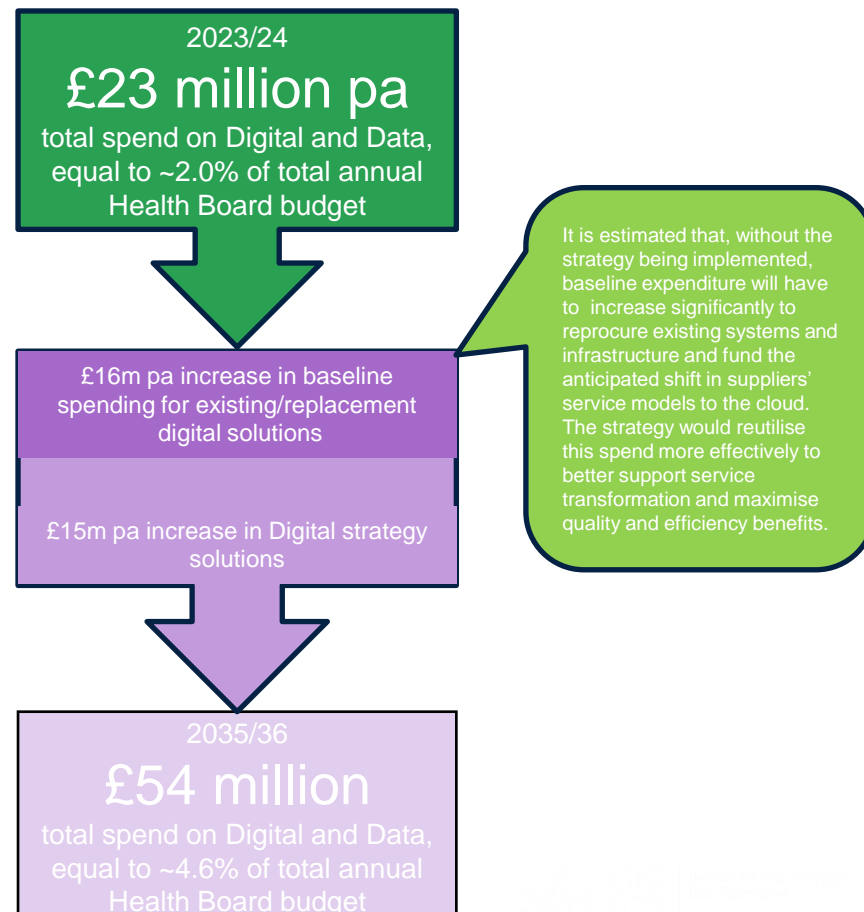
Digital transformation sits within the context of a complex and constrained financial landscape both for SBUHB and for NHS Wales more broadly. However, to achieve the service-led digitally-enabled transformation set out in this vision, a considerable increase in investment into digital, data and technology will be required. Digital experts suggest that allocating 5-10% of total Health Board income to digital and data is the benchmark for achieving Digital Transformation and reaching HIMSS Stage 7. This is much higher than the current annual spend on Data and Digital at SBUHB of just over 2%.

Given that SBUHB is already making good progress against higher HIMSS levels, we believe that SBUHB can achieve our digital vision by allocating less than the suggested 5-10% of Health Board budget (~£1.16bn). The financial modelling suggests that an increase from £23 million per annum in spending on Digital and Data to £54 million per annum over the next 10 years will be required to achieve the Digital vision. This represents an increase from ~2.0% of the total Health Board budget to ~4.6%. This spending is made up of:

1. **Baseline Spending:** The spending required to sustain the current Digital Services initiatives including re-procurement and replacement of existing systems. It represents the spending required to 'keep the lights on' for existing Digital solutions
2. **Digital Strategy Solutions:** The additional investment required to deliver the digital transformation required to enable the delivering of the One Bay Way

Furthermore, there is an expectation that Digital Services costs will progressively decrease their dependency on capital funding, transitioning further towards revenue funding as SBUHB adopts a cloud-first approach, in line with WG and NHS Wales strategy.

The pace of change and delivery of the strategy will have to be set in the context of the availability of funding and the speed in which the organisation is able to increase the proportion of its budget allocated to digital transformation and solutions. The plan that has been set out is ambitious and describes a rapid acceleration towards embedding digital ways of working throughout our service delivery, with the goal of providing the highest quality care. Whilst this is a statement of intent and commitment of the Health Board to the Digital journey it is acknowledged there are likely times where investments will need to be prioritised and assessed, in light of service demands and other economic factors, that may impact on the pace of delivery. Funding requirements will be identified via the IMTP process and justified via local and national business cases as appropriate.



Delivering a Sustainable Organisation

Digitally enabling the Health Board will require significant investment of resources and will require significant cash releasing savings to ensure the delivery of **sustainable** high-quality services to our population.

The Kings Fund briefing: “A digital NHS: An introduction to the digital agenda and plans for implementation in 2016”, highlighted McKinsey estimated that the digital transformation of Health organisations can save between **7%** and **11.5%** of their health expenditure. For SBUHB this would equate to between **£81.2m** and **£133.4m** per annum (based on the current allocation).

Challenges

- **Cultural and Transformative Shift:** Achieving the magnitude of savings will require a cultural and transformative shift in approach.
- **Higher Quality and Better Preventative Care Provision:** Will reduce admissions and length of stay, however translating this into cash benefits is challenging given the increase in demand caused by an aging population and the accelerating complexity of care provision.
- **Appetite for Risk:** The health boards risk management policy states that “*it has a risk-seeking appetite to the development of new systems and managing system changes that are aimed at improving service delivery.*” Maintaining this appetite to risk for investment into technology and a commitment to transformative change is essential to digitally enabling the Health Board. This will need to be underpinned by a robust approach to governance, finance and procurement.

Local Evidence

- Evidence within SBUHB that digitally enabling processes and care can significantly reduce costs and improve the quality of care. Examples include:
 - **RFID** - Patient note tracking Released 10 wte Band 2 £232k pa and eradicated previous high levels of agency spend within the Health Records team.
 - **Connecting Care** - The SBUHB business case for WCCIS identified the opportunity of £371k cash releasing and £1.099m non-cash releasing savings per annum
 - **HEPMA** – 5600 hours of prescriber time and 8900 of nursing hours saved per annum from rewriting or searching for medication charts across NPT and Singleton
 - **MS365** – Teams – Reduction in travel expenditure of c£1m

National Evidence

- Global/National examples of how digital transformation can support the reduction of costs and increase in quality of care include.
 - **Intermountain Healthcare USA** implemented a systematic approach to standardise clinical workflows across its facilities, using digital solutions and business intelligence. This involved identifying best practices, reducing unnecessary variation, and integrating evidence-based protocols into daily operations. They have estimated that this has resulted in a 30% reduction in costs.
 - **Kaiser Permanente (an American integrated managed care consortium)** – a wide scale transformational approach to service provision with the implementation of Telemedicine services, has estimated an average saving of \$174 per appointment and has increased their customer satisfaction ratings.

Establishing a Benefits Framework across the Organisation

The development of a Health Board-wide benefits framework will be essential to support the governance arrangements for delivering the digital strategy. This framework will ensure that all transformation initiatives are aligned with the Health Board's broader strategic objectives, providing a clear and consistent way to measure the impact of investments and service transformations. By establishing clear, consistent metrics across the Health Board, the framework will help track progress, demonstrate value, and ensure accountability. It will also facilitate informed decision-making, enabling the Health Board to prioritise initiatives that offer the greatest benefits to patient care, operational efficiency and progress towards achieving the Health Board's Strategic Objectives. Once established the framework will allow measuring and tracking of the benefits realisation and ongoing performance management.

Benefits Framework

Each SBUHB Strategic Objective will have a core set of defined quantifiable measures that will be used to demonstrate progress against delivery. Where appropriate financial values will be attributed to each measure. e.g. Length of Stay, Avoided admissions, could be assigned to Objective: Care is high quality, safe, efficient and delivers the best possible outcomes for people and be given a financial value.

Business Case

All business cases and IMTP decisions will be required to outline the benefits and impact they are anticipated to have against the core measures within the benefits framework. (The framework will include cash releasing savings as **one** of the core measures.) Cases will have to evidence stated impact as appropriate.

This will allow SBUHB to prioritise investments and decisions on a consistent basis.

Implementation

During the implementation process of any transformation initiative the stated benefits will be reassessed and validated.

Benefits realisation and tracking will be embedded into every change program and will be required to set out how benefits will be tracked and monitored post implementation. It will need to be recognised that benefits will cross internal organisational boundaries e.g. a transformation in Community may reduce LoS in Secondary Care.

Performance Management

The Benefits Framework will be embedded into the performance management governance arrangements for the Health Board. This will ensure that there is continuous assessment of the impact of investment and service improvement decisions. It will also ensure that the organisation has oversight on progress being made towards achieving its longer-term strategic objectives.

Investment Opportunities

Delivery of the funding requirement to digitally enable the Health Board will be challenging and SBUHB will need to explore a wide range of funding options.

Traditionally, beyond its own allocations into Digital solutions, SBUHB has been relatively successful in securing funding from traditional funding routes namely the Digital funding available via WG Digital funds and wider WG capital year end slippage. In the last 3 years SBUHB has received **£9.3m** capital (excluding allocations for COVID response) and **£2.3m** revenue to invest in technology refresh and delivery of new projects such as HEPMA. Whilst work will continue to secure funding through these routes it is recognised that these traditional funding routes alone will not be sufficient and, that the shift into the cloud and software as a service, is changing the funding requirement from Capital to Revenue. The Health Board will, therefore, need to broaden its approach to include:

WG Funding



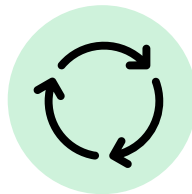
- Welsh Government funding from wider transformational initiatives by embedding digital ways of working in everything we do.

Strategic Partnerships



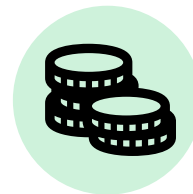
- Developing Strategic Partnerships with commercial suppliers to co-develop solutions that benefit both parties.

Reinvestment

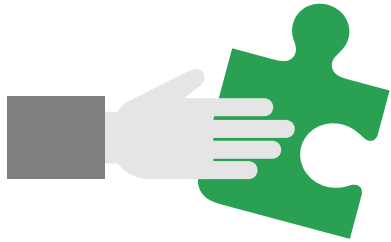


- Reinvestment of efficiencies released from projects back into other digital enablement projects.

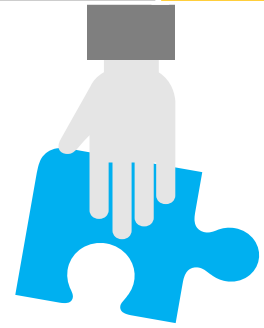
Income Generation



- Income generation from solutions developed within SBUHB.



6. The Plan



The Mobilisation Plan

Delivery of the SBUHB Digital Strategy for 2035 will require significant changes to organisational ways of working, with all teams taking a much more collective responsibility for digital transformation and the realisation of the potential benefits. The SBUHB digital landscape needs to be rationalising, consolidating current systems and developing a central Electronic Patient Record (EPR) model and Care Data Resource (CDR). We believe the key to the success of our strategy in the long term is rapid yet thoughtful change within the next three years to 2028. Our ambitious 3-year roadmap maximises the enormous potential of SBUHB by focussing on a prioritised list of strong digital foundations, building a robust, modern, and consolidated suite of digital and data capabilities.

The Mobilisation Plan sets out the 3 key areas of work that must now be undertaken over the course of next 12 months to evaluate SBUHB's current work and maximise the SBUHB Digital Strategy's success. The three areas include:

- Aligning – securing sign-off, maintaining momentum and building buy-in
- Mapping – testing and prioritising digital projects against the new vision,
- Structuring – setting up the programme for success

By 2028, we will have a fully developed Electronic Patient Record (EPR) model strategy and commenced implementation of priority modules. The 3-year plan outlines the key deliverables from 2025 to 2028 across the four enablers and aims to deliver specific digital solutions and capabilities to support the broader 10-year vision. The three priority components that contribute to the delivery of a health and social care record for Swansea Bay patients and citizens are detailed below.

The 3 Priority Components

A single electronic patient record (EPR) for secondary care. Fundamental to its success will be the establishment of a strategic partnership with a preferred supplier who will work flexibly with the Health Board on both existing and emerging priorities.

A digital system for Community, Mental Health, and Learning Disabilities. A key requirement from this solution will be alignment and integration with regional partners, such that that digital solution can enable delivery of the ambitions of "A Healthier Wales".

Specialists service solutions which deliver unique functionality, that cannot be delivered as a module of the electronic record for secondary care. This will include services such as pathology, radiology, maternity and intensive care.

Ingredients for Successful Delivery of the SBU Digital Strategy

ALIGNING

1. **Alignment** with the strategic agenda
2. Executive **endorsement** and active commitment
3. Buy-in from all levels and a sense of **urgency** and importance
4. **Organisational commitment** and belief in the value of the financial investment in Digital
5. Clear articulation of **benefits** and a shared sense of the scale of the opportunity

MAPPING

6. Single **coherent view** mapping all the digital and data work and capabilities being carried out and supported across SBU, including those supported by the Digital Services team, but also other organisation-wide activities
7. Development of a **Prioritisation Framework** using an agreed set of criteria to test activities (both current and future) against the future vision
8. Application of the framework, starting to **rationalise projects and BAU activities**, freeing up capacity for the programme, while acknowledging the dis-benefits to services that may occur in the short-term

STRUCTURING

9. Set-up of appropriate **Delivery Vehicle** for the work across existing portfolios and new programme areas
10. Align individuals with the most critical **skills and experience** to specific areas of delivery ensuring **ownership and accountability** for outcomes
11. Robust reporting and governance processes with appropriate technical and strategic support available to unblock challenges
12. Set-up **appropriate KPIs** and define **success criteria** to track delivery and celebrate success

Continuing business critical activities and delivering on IMTP commitments

National Programmes and Initiatives

There are a number of core National Programmes and initiatives which will play a significant role within our strategic plans. Our ability and positioning to collaborate and influence prioritisation within each area could have a significant impact on the pace at which we achieve digital transformation and deliver against local priorities.

National Data Resource (NDR)

The NDR programme aims to establish a national standardised rich data source encompassing all aspects of health and care datasets. The NDR will be the single source of truth for NHS Wales which can be surfaced to clinicians, patients and health and care leaders through front-end applications, to provide individual patient records through to advanced analytics.

National Enterprise Architecture

The National Enterprise Architecture will sit above the NDR providing the health and care business process rules, standardised across Wales. Thus, enabling systems used by the workforce and patients, such as EHRs and patient portals, to interrogate the data layer in a standardised way. As technology progresses, systems will be replaced. The enterprise architecture will create a standardised layer of abstraction between the systems and the data.

NHS Wales App

The Digital Services for Patients and the Public (DSPP) programme is helping to coordinate the rapid delivery of digital solutions and health and social care applications for patients and service users across Wales through the development of the NHS Wales app. An early deliverable for SBUHB will be the integration with the Swansea Bay Patient Portal.

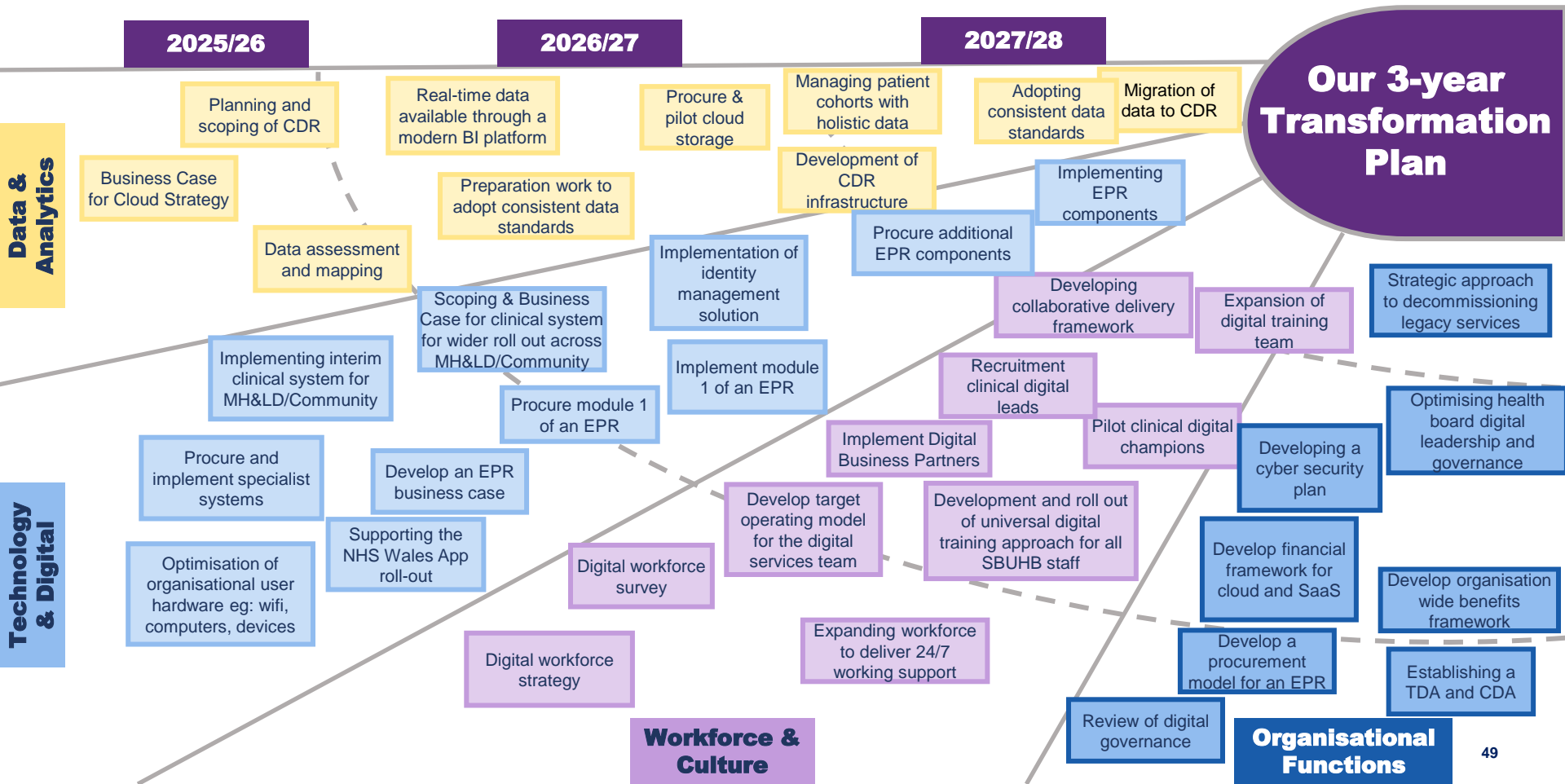
Electronic Health Record (EHR)

There is significant momentum emerging from national digital leads collaboration to drive forward the Electronic Health Record (EHR) agenda. The Cabinet Secretary for Health has requested that a National EHR business case be developed by September 2025 for ministerial consideration. The SBUHB Digital priority of a first phase EPR for unscheduled care is a tactical approach to act as a pathfinder for the National approach.

Digital Medicines

Digital Medicines aims to introduce connected, digital services for prescriptions, prescribing and medicines management, including the delivery of the Electronic Prescription Service (EPS), Electronic Prescribing and medicines Administration ePMA and a Shared Medicines Record (SMR). SBUHB has been the trailblazer organisation over the last 5 years in delivery ePMA across all Wards.

Our 3-Year Transformation Plan



Current Assessment of the Mobilisation Risks

Theme	Current Risk	Proposed Mitigations
Organisational & National Alignment	There is a risk that there is a perceived misalignment between the priorities of the digital strategy, the wider organisation and national, resulting in difficulty mobilising the Digital Strategy due to limited buy-in from non-digital stakeholders from across SBUHB and DHCW	<ul style="list-style-type: none"> Achieve formal sign-off from the Execs, rapidly following strategy completion Sustain communication efforts with both Execs, the wider organization and DHCW, communication key priorities and immediate next steps, and continuing to align the Digital Strategy programme with the organisational priorities
Culture, Empowerment & Belief	While the Digital Services team have developed positive relationships with clinical and operational teams, established collaborative processes are currently limited which risks perpetuating siloed ways of working. This could risk reinforcing a culture where digital and non-digital teams work in siloed ways – some view digital initiatives as solely owned by Digital Services while others independently source digital solutions	<ul style="list-style-type: none"> In the short-term, the Digital Strategy will require universal buy-in. Digital and non-digital leadership need to socialise the strategy and demonstrate the achievability of its plans to staff Ensure there is non-digital representation as part of the governance processes for the Digital Strategy as a whole, as well as for individual projects including establishing Clinical Digital leadership group and Clinical Design Authority
Governance & Reporting Framework	Siloed management of digital initiatives without a comprehensive overarching governance structure and sufficient technical input, increases the risk of fragmented strategic components. Similarly, SBUHB have historically struggled to prioritise robustly and stop work that isn't serving them which risks not releasing sufficient capacity to deliver	<ul style="list-style-type: none"> Review and establish refreshed governance and reporting frameworks and processes to support centralised progress sharing and priority setting, allowing for innovation and 'failing fast' where appropriate Establish a TDA responsible for solutions aligning with the organisational strategy Develop and apply prioritisation framework consistently – commit to saying “no”
Ownership & Accountability	If there is unclear indication of ownership for individual components of the strategy, there is a risk of ambiguous accountability leading to potential implementation challenges	<ul style="list-style-type: none"> As part of reviewing and establishing governance processes for the Digital Strategy programme, identify accountable officers for each project in the portfolio Through governance groups, foster a culture of supportive challenge where programmes are not on track or change in approach is needed
Appropriate KPIs	Whilst there have been KPIs proposed for solutions as part of the 3-Year Roadmap, if KPI data is not used to inform decisions on the Digital Strategy, it poses a risk of inadequate performance measurement and strategic alignment.	<ul style="list-style-type: none"> Agreeing an organisational method for tracking and responding to KPIs related to the Digital Strategy Strategising how KPIs will be adapted and reported on as digital solutions progress over time
Skillssets	The potential presence of skills gaps in areas of required digital expertise, e.g. digital procurement, and modern digital skills, e.g. cloud service platform skills, software defined networking and advanced cyber security skills, combined with the capacity pressures already faced by the digital workforce poses a challenge to the execution of critical Digital Strategy solutions.	<ul style="list-style-type: none"> Conduct a prompt gap analysis to identify missing staff capabilities and accompanied recruitment drive to fill the identified capability gaps Execute the mapping exercise of current digital projects led by both digital teams and services to consolidate workload and free up capacity for new activities Increased digital team training and development offering to increase productivity, build skills and improve retention
Finance & Resourcing	Failure to secure financial commitment for the Digital Strategy investment required, due to the substantial increase in budget proposed, risks making successful implementation unviable	<ul style="list-style-type: none"> Develop comprehensive financial and benefits analysis of the Digital Strategy Promptly mobilise the financial planning discussions required to secure funding in principle for the Digital Strategy

The journey to the future

A high-level view of the key activities and areas of progress we need to focus on for SBUHB to successfully deliver on our digital vision in 2036

Digital Maturity over Time

Partnering with Local, Regional and National Programmes

Clinical & Care data stored safely in the Cloud and expanding our existing cloud-based service provision

Paperless / Paper-light records captured electronically

Dependable IT equipment & robust Wi-Fi

Enhanced patient facing digital tools that empower our people

A Digital Workforce Strategy that attracts and retains top talent & valuable skills

Identity management through 'single-sign-on' ensures staff need only log-in once to access all the systems they need for their session

Dedicated projects target the biggest gaps in current digital provision e.g. mental health and community

Common data standards and data entry create a single version of the truth

A unified Digital Training and Support offer improves staff digital literacy and confidence using digital tools

An enhanced Business Intelligence and Analytics capability optimises the use of data to drive evidence-based decisions and improvements in care

A Digital Co-production and Innovation model supports SBUHB to embed best practice and pilot new initiatives

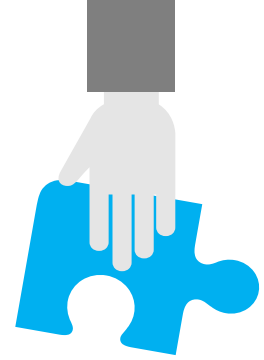
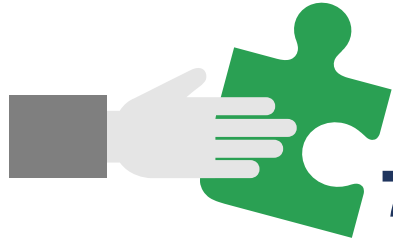
The critical step

A Care Data Repository (CDR) connected to an Electronic Patient Record (EPR) model provides all clinicians with access to the patient information they need to make the best clinical decisions, whilst providing SBUHB with rich and accurate data to plan care effectively for the people of Swansea Bay

NHS Wales App becomes the single digital front door for patients in Wales

Advanced analytics and use of AI tools support proactive and preventative care planning and assist clinical decisions

Capability of workflow and back-office systems increases by linking into CDR and central tooling



7. Additional Resources



Understanding the Terminology

Patient Facing Services

Digital tools, applications, or platforms designed to empower patients and facilitate their engagement in their own healthcare, including services such as online appointment scheduling, telemedicine consultations, patient portals for accessing health records, educational resources, remote monitoring devices, and mobile health apps.

EPR (*Electronic Patient Record*)

A healthcare EPR is like a digital file that keeps all your health information together in one place, such as your medical history, test results, and medications. It is the digital interface which doctors, nurses and those involved in your care use to seamlessly access your medical information, whilst keeping your information safe and private.

CDR (*Care Data Repository*)

A CDR is like a big digital storage space where all the system's health and care information is kept. It collects information from different care settings and puts it all together in one safe, secure and organised system. Among things, it is where the data inputted in the EPR is stored. It helps create a full picture of the health of both individuals and the population.

Data Standardisation

This is the process of making sure all the information recorded across the health system is organised and recorded in the same way. This is done by applying 'data standards' or a data language so that the data can move more easily between systems and everyone can understand and analyse information more easily to drive improvements in care.

Here are a few digital terms it will be useful to understand when engaging with the strategy



AI (*Artificial Intelligence*)

A rapidly evolving branch of computer science that enables problem-solving, decision-making, language understanding, and pattern recognition. AI tools can act as a smart helper that supports clinicians to make better decisions through activities such as analysing medical images, predicting diseases and even suggesting treatments.

The Cloud / Cloud

Storing health data in the cloud or is like putting your information in a safe and secure digital locker on the internet. It reduces the risk of paper-based reports which can get lost or damaged and improves the security of your data. It can also allow for easier access and scalability over time.

Single Sign on Process

A system that enables clinicians to access multiple applications or systems with a single set of login credentials that only have to be entered once per session. This makes it much easier than having to sign-in to each system individually saving clinicians time and effort in the process.

Cyber Security

Tools and techniques employed as part of your digital infrastructure to protect computers, systems and data stores from any unauthorised access, cyberattacks/hackers, viruses or data breaches. Cyber security keeps valuable health information safe and ensures only the right people can access it.

SBUHB's Current Digital Capabilities

Despite SBUHB's position as a Welsh digital leader there remains substantial progress to be made before fully realising the digital vision. The below is an indicative assessment of the extent to which these Digital Capabilities are currently supported within SBUHB, indicating those which are fully supported, those which are yet to be implemented, and those which are in progress.

Key:

Data & Analytics	Technology & Digital
Workforce & Culture	Organisational Functions

Fully supported

Not currently supported

Patient and Citizen Empowerment

Patient Portal	Information Input	Patient outcomes reporting	Self Care	Self referring	Collaboration Tools	Appointment Booking	Patient data consent
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Integrated Health and Care

Virtual consultations	OOH Handover	Primary community care records
Transfer of care	Remote monitoring	MH & LD records and assessments

Diagnostics

Medical Imaging	Electronic Test Requesting	Diagnostic results and reporting
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Hospital patient, safety and flow

Bed Management	Appointment Scheduling	Digital champions
Compliance alerts	Bedside Observations	Ward Board management
Pre-operative Assessment	Maternity	Staff rostering
Patient administration	Nursing Care	Mental Health Information
Workflow management	Patient flow	Longitudinal care record
Records, plans and assessments	Patient communication	ePrescribing
Pre-hospital flow	Asset tracking	

Security and Information Governance

Ethics	Single Sign-on	Information Sharing Agreement
Audit	Cyber Security	DPIA
Patient privacy preferences	Digital Risk Management	

Reporting & BI

Incident Reporting	Predictive models	Planning
Data visualisation	Population Health	Automated detection
Near-miss reporting	Robust data classification system	

Enabling digital technology

Identity Management	Data Repository	AI tools	Smart Devices	On-Prem / Cloud hosting	Wi-fi	Desktop, printers and devices	Integration and Interoperability	Data standards	Document management
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Digital management services

Change management	Mobilised workforce	Horizon scanning	Communication and engagement	Agile development	User experience design				
Training & Support	Contract Management	Data Governance and Collaboration	Project Management	Financial management	Workforce planning	Human Resources	Benefits realisations	Digital leadership	Recruitment and retention

Our Vision for SBUHB's Digital Capabilities in 2036

Below is a comprehensive and ambitious list of the digital and data capabilities that SBUHB aims to achieve by 2036 through the successful delivery and implementation of the. These capabilities are categorised based on the main digital enabler they align with, although many of them cut across multiple.

Key:

- Data & Analytics
- Technology & Digital
- Workforce & Culture
- Organisational Functions

Patient and Citizen Empowerment

- Patient Portal
- Information Input
- Patient outcomes reporting
- Self Care
- Self referring
- Collaboration Tools
- Appointment Booking
- Patient data consent

Integrated Health and Care

- Virtual consultations
- OOH Handover
- Primary community care records
- Transfer of care
- Remote monitoring
- MH & LD records and assessments

Diagnostics

- Medical Imaging
- Electronic Test Requesting
- Diagnostic results and reporting

Hospital patient, safety and flow

- Bed Management
- Appointment Scheduling
- Digital champions
- Compliance alerts
- Bedside Observations
- Ward Board management
- Pre-operative Assessment
- Maternity
- Staff rostering
- Patient administration
- Nursing Care
- Mental Health Information
- Workflow management
- Patient flow
- Longitudinal care record
- Records, plans and assessments
- Patient communication
- ePrescribing
- Pre-hospital flow
- Asset tracking

Security and Information Governance

- Ethics
- Single Sign-on
- Information Sharing Agreement
- Audit
- Cyber Security
- DPIA
- Patient privacy preferences
- Digital Risk Management

Reporting & BI

- Incident Reporting
- Predictive models
- Planning
- Data visualisation
- Population Health
- Automated detection
- Near-miss reporting
- Robust data classification system

Enabling digital technology

- Identity Management
- Data Repository
- AI tools
- Smart Devices
- On-Prem / Cloud hosting
- Wi-fi
- Desktop, printers and devices
- Integration and Interoperability
- Data standards
- Document management

Digital management services

- Change management
- Mobilised workforce
- Horizon scanning
- Communication and engagement
- Agile development
- User experience design
- Training & Support
- Contract Management
- Data Governance and Collaboration
- Project Management
- Financial management
- Workforce planning
- Human Resources
- Benefits realisations
- Digital leadership
- Recruitment and retention

High-level view of the number & complexity of our digital systems

SBUHB currently maintains a high-volume of digital systems, with integration and interoperability existing to varying degrees within and across programmes. The below table provides a high-level overview of the current digital assets in places across SBUHB. While not exhaustive, it illustrates the complexity of SBUHB’s digital landscape, made up of many separate systems, which poses significant challenges for integration and interoperability.

Key:

- Awaiting implementation
- Partially implemented / awaiting replacement
- Implemented

Patient & citizen empowerment	SBPP		Woundcare App		Synertec Document Management (hybrid mail)		PROMs		Attend Anywhere		NHS Wales App	
Integrated health & care	Connecting Care		Adastra GP OOH		WCCG		Malinko		Consultant Connect		ETR	
Hospital patient safety & flow	ICNET	WEDS	HEPMA /ePMA	WICIS	ICNET	CDR/NDR	Leicester	SIGNAL	Pharmacy Hospital Management			
	Child Health	HSDU theatre utensils	Nugensis	Cellma	EPOA	Meditec IVF	Millcare	Omnicell	Hero K2 (Foetal monitoring)			
	TOMS	Twinkle	WPAS	MIMS	CANISC	Maternity Cymraeg	WNCR	Chemocare	Badgernet (Foetal monitoring)		DATIX	WCP
Diagnostics & treatment	DAWNAC	Spacelabs	MUSE	Auditbase	Radiology PACS	EMS & tdoc	WRIS	PATS	MIMS WABA	POCT		
	Vitaldata	Mosaic Radiotherapy	RADIS	LIMS	Cardiology PACS	Roche Accu	Cardiobase	Hermes	Neuroworks EEG	Wales Pathology Handbook		
Document management	DMS		Z-drives		Share Drives		Excel		SharePoint Online		Office 365	
Reporting & BI	Data Warehouse				Qlik				PowerBI			
Workforce & operational	MyPorter			ESR			E-Roster			Allocate		