Our Digital Future

Digital Roadmap for Health in North Wales

2021 - 2024

GIG CYMRU NHS WALES

Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

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1. FOREWORD

This document is to share the progress we have made with our Digital Strategy.

Digital, along with workforce and finance, will play a key role in the delivery of better health and wellbeing outcomes for North Wales.

We know that we must increase the pace of delivery, help clinical and operational leads understand the important role they must play to making change happen, we must maximise the use of our budgets and additional funding with clear plans and properly resourced projects.

Following on from my recent appointment, I am now concluding my "discovery work" where I have been learning about the organisation and its needs and developing a plan to improve and modernise the way in which we deliver Digital, Data and Technology in the future.

This will include for example:

- Developing proposals for a new operating model for how we deliver Digital, Data and Technology Services as a Health Board,
- Working with clinicians and operational leads to put digital at the core of their strategies and plans,
- Establishing stronger relationships across North Wales,
- Audit, catalogue and review our applications portfolio,
- Review our current Electronic Health Care Record capability maturity level against an internationally recognised model,
- Get the basics right in the way we specify, commission, design and deliver Information Technology (IT), and
- Establish a costed three year rolling Essential Services Programme (ESP) necessary to keep key infrastructure up to date to mitigate against Cyber Attack and Major Information and Communication Technology (ICT) Failures.

This is while at the same time, we deliver against the commitments we have made from a project and programmes perspective and ensure minimum service standards are maintained to clinicians and other users.

This next year is going to be the busiest yet.

Dylan Roberts

Chief Digital and Information Officer

2. Executive Summary

Our Vision is **"transforming the patient experience, safety and outcomes through digital ways of working".** This means putting the experiences of patient, carers and staff at the heart of what we do.

The Our Digital Future strategy also supports the delivery of our strategic priorities in Living Healthier, Staying Well and our Population and Organisational Outcomes and is informed by feedback from our engagement. It covers Primary Care, Secondary Care, Community Care and Mental Health.

Our longer term vision is to work towards the development of a Digital Health and Social Care Strategy across North Wales, which ensures we are working collaboratively so together we can deliver more technology enabled care, supporting care closer to home and our prevention agenda.

The purpose of this report is to set out our progress against this vision, and putting the experiences of patient, carers and staff at the heart of what we do.

What we did well
We are excelling in the "Embracing Innovation" enabler through our work with the Small Business Research Initiative (SBRI) Centre. The Centre continues to be approached to assist colleagues across Wales on challenge led innovation and is currently assisting on a £1.5 million bid to reduce plastic waste within health. We continue to work with colleagues across Wales to identify unmet needs and run challenges within industry and ensure procurement and adoption of successful solutions.

We are well on our way to achieving what we set out to do this year in relation to the "Information to Improve" enabler. We have increased the use of Business Intelligence (BI) Dashboards for example, providing enhanced visibility, timesaving efficiency and enabling more accurate reporting. A pilot of Robotic Process Automation (RPA) is also being used.

We are also achieving against our "Strong Partnerships" enabler, having developed a model Information Sharing Protocol (ISP) to support integrated working across health and social care, and has been approved by the North Wales Information Governance leads.

Within the "Digital Organisation" enabler key achievements include the Chief Digital and Information Officer now being in post, who sits on the Board and the Executive Management Team to drive forward the digital agenda. We also launched the Digital Strategy and have developed a draft benefits framework and management of portfolio framework.

With regard to "Enabled Patients and Carers" we have implemented an online Patient Experience System to capture patient and carer feedback allowing the Health Board to engage with our community, to understand how the services we are providing are working, and to listen and act upon how the public say the Health Board needs to improve our services to provide a better experience. In terms of how we support the national development of the Digital Services for Public and Patients Programme (Patient Portal Gateway) the Head of Programmes Assurance and Improvement (PAI) sits on the Service Delivery and Transformation Group, and the Chief Clinical Information Officer is the Chair of the Ethics Groups.

For "Connected Staff", we have implemented Symphony at all our main sites and have considered the feasibility of a Digital Ward and as a result are implementing Stream across all wards. We have

assessed the feasibility of an e-referrals system and are implementing the Welsh Patient Referral Service (WPRS). We are also working with a number of different services to implement new systems and increase their gains from digital.

As part of our Road Map, we have successfully implemented:

- Symphony – an Emergency Department System across the Health Board
- My Prostate Specific Antigens (PSA) Tracker – PSA Blood tests are logged and tracked on the system
- Wellsky – Pharmacy & Medicines Management (drug procurement, stock management and dispensary)
- Welsh Patient Administration System (WPAS) (West into Central - May 22)
- Office 365 – Phase 1
- Procurement and roll out of laptops and smart phones for services to access Malinko

We have started:

- Results Management
- Medicines Transcribing & Electronic Discharge (MTeD)
- Canisc Replacement
- Eyecare Programe
- E-Referrals – Electronic Referrals from GP's to Consultants (Includes e-Advice)
- Welsh Community Care Information System (WCCIS)
- Stream – electronic board round process supporting patient flow
- WPAS Single Instance

We are preparing for:

- Welsh Intensive Care Information System (WICIS)
- Electronic Prescribing and Medicines Management Administration

What we are not doing so well

As part of our "Strengthened Digital Foundations" enabler, we had hoped to review the Informatics Support Model and pilot a new model in Mental Health and our Community Resource Teams, incorporating best practice in communication technology. However, this action was put on hold due to the development of the new Operational Model for the organisation as a whole that Informatics are required to support through the development of a new business partner approach.

Within the "Digital Organisation" enabler we have not been able to undertake research on the impact of systems on patient safety and outcomes and integrate the findings into the benefits realisation framework due to lack of resources, and we haven't yet fully assessed the level of staff engagement in project engagement and communication plans.

3. Informatics at Betsi Cadwaladr University Health Board (BCUHB)

Our Informatics Team supports the delivery across the Health Board and is made up of ICT, Patient Records & Digital Integration, Information and Clinical Coding, and Programmes, Assurance and Improvement. The Digital Strategy sets the direction of work for the team for the next few years.

- **ICT**
  Information and Communication Technology (ICT) is the development, management and support of the core ICT infrastructure, including systems and servers, networks,

telephony, personal computers, email and collaboration and mobile communications as well as the provision of Service Desk and Customer Support and Engagement.

- **Patient Records and Digital Integration**
  The Patient Records and Digital Integration Department provides a sustainable range of services that are renowned for ensuring the quality and standards of patient records, ensuring the timely availability of records to inform clinical decisions, and meeting our legislative requirements in relation to subject access requests; alongside leading projects to deliver the safe transformation from paper to digital.

- **Information and Clinical Coding**
  The Information Management Services Department is responsible for delivering a complex and diverse service to the Organisation comprising of WPAS Management, Information Development, Information Reporting, Information Standards, Information Analysis and Clinical Coding.

- **Programmes, Assurance and Improvement**
  The Programmes, Assurance and Improvement Service manage national and local digital programmes and projects working across the organisation. Undertaking business analysis to support services with their processes and systems, provide business support, assurance and improvement for the Informatics Service and are the guardians for the national SBRI Centre.

The new CDIO and Senior Leadership Team have identified some deficiencies and gaps in this structure and operating model. It is likely there will be some changes at a future date.

Our Digital Future

"Transforming the Patient experience, safety and outcomes through digital ways of working"

**Ambition 1
Enabled Patients
& Carers**

As a Patient or Carer I can use Digital Technologies to actively manage my own care / care of others, to communicate and to have my say on services

**Ambition 2
Connected
Staff**

As a member of Staff I can access the right information, in the right place at the right time, with the right devices and I am supported to be confident to use technology & information to improve the services I provide

Strong
Partnerships

Digital
Inclusion

Digital
Organisation

Strengthened
Digital Foundations

Information
for Improvement

Embracing
Innovation

The 6 Key Enablers

Enabler 1 – Strengthened Digital Foundations

"Our ICT infrastructure, systems, devices and support provided are suitable for today and the future, we have strong information security and governance, and we get the best out of our suppliers"

Enabler 2 – Information For Improvement

"We use quality data to create intelligence to make better decisions, predict demand and improve services"

Enabler 3 – Digital Organisation "Think Digital"

"Think Digital" We actively develop our digital culture and maturity through committed and accountable leadership, being integrated throughout our business planning processes with the appropriate investment to improve. Delivering benefits to patients and staff: financial, non-financial, social and environmental."

Enabler 4 – Strong Partnerships

"We can seamlessly share relevant information with our key partners and we work co-productively in developing new ways of working with our Patients, Staff, Key Partners and Suppliers"

Enabler 5 – Digital Inclusion

"We are fully aware of the impact of any new ways of working on our patients, carers and staff so we can put plans in place to ensure inclusion."
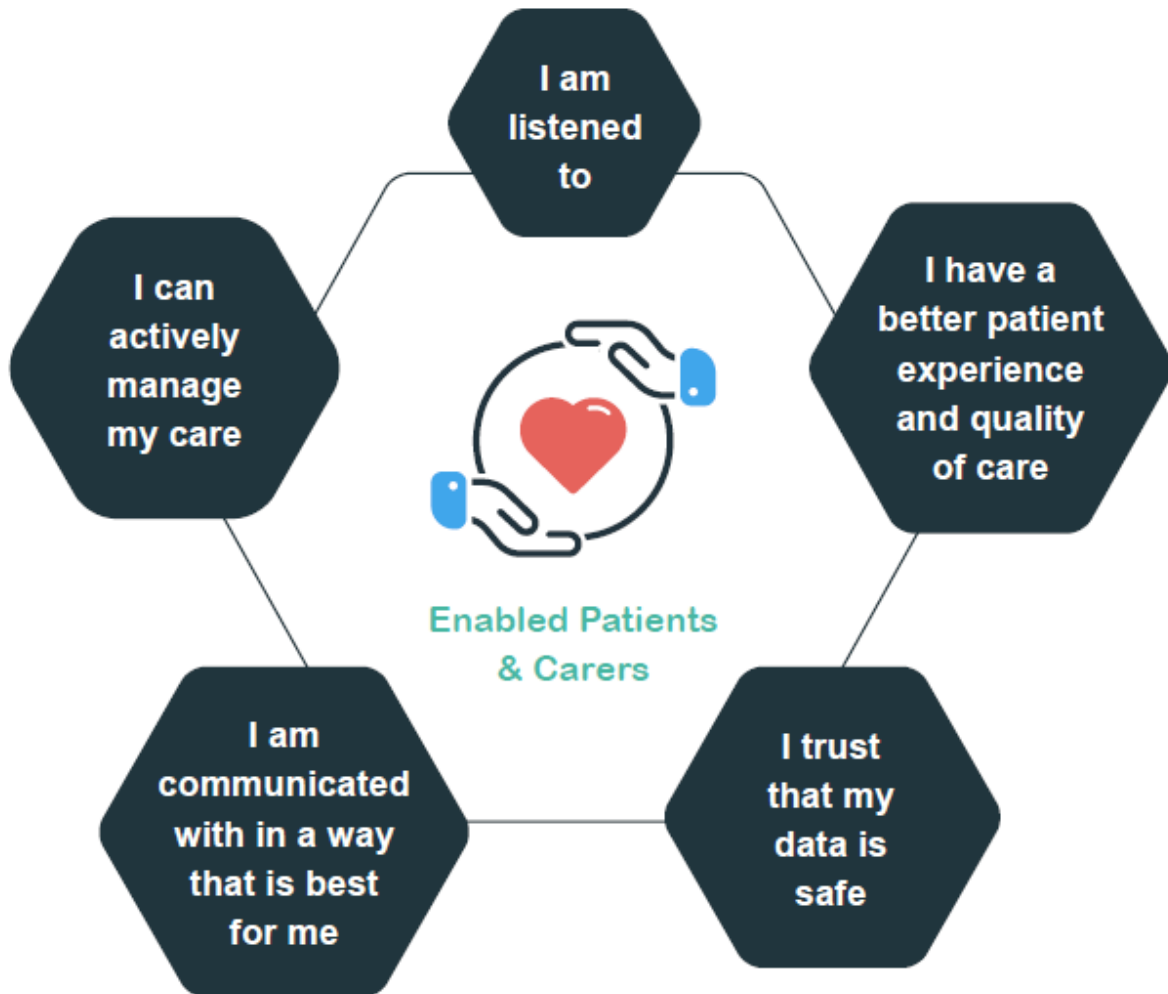
Enabler 6 – Embracing Innovation

"We keep up to date with new ideas and ways of working and be involved in and invest in innovative research and development. We learn from and are ready to adopt best practice"

Patient & Carers Experiences

We want our patients and carers to have the following experiences:

I am communicated with in a way that is best for me

What we wanted to achieve over the year

- **To plan any new patient digital systems so they take the language/method/format into account (includes the Welsh Language)**

Did we achieve it?
Ongoing action - we currently do not have any patient facing systems

I am listened to

What we wanted to achieve over the year

- **To embed a user-centred design approach into the implementation of patient focused systems.**

Did we achieve it?

Partly. End user training has just started to be provided nationally. Some staff have attended training but further development is required and linked to Service Design.

- **To implement a Patient Experience System**

Did we achieve it?

Yes. Civica is an online patient and carer feedback system which has been implemented and is being used across the health board. This system is being used as a tool to capture patient and carer feedback. This system allows the Health Board to engage with our community, to understand how the services we are providing are working, and to listen and act upon how the public say the Health Board needs to improve our services to provide a better experience.

- **To keep up to date with the Technology Enabled Care (TEC) Cymru Centre to identify and prioritise TEC projects for care closer to home**.

Did we achieve it?

Yes. Our Informatics Senior Leadership Team (SLT) received a presentation at the SLT meeting from Mike Ogonovsky on the work of the TEC. No projects were identified for prioritisation. This needs to be reviewed in relation to the Digital Strategy moving forward.

I have a better patient experience and quality of care

What we wanted to achieve over the year

- **To assess the impact on patient safety through our benefits realisation framework.**

Did we achieve it?

Partly. The draft benefits realisation framework has been trialled within two different projects (WellSky and Office365). Feedback from the users is being collated to help inform any required changes to the framework. The benefits realisation lead has received formal benefits realisation training and the learning will help inform the further development of the framework. The framework will need to compliment any Portfolio Management framework which is developed. A benefits realisation framework will provide structured processes to identify and deliver real outcomes that specifically support strategic objectives.

I can actively manage my care

What we wanted to achieve over the year

- **To support the national development of the Digital Services for Public and Patients Programme(DSPP – Patient Portal Gateway – NHS App)**

Did we achieve it?

Yes. The Head of PAI sits on the Service Delivery and Transformation Group and the Chief Clinical Information Officer is the Chair of the Ethics Groups.
The DSPP Update sessions have been promoted by Informatics.

6. AMBITION 2 – CONNECTED STAFF - UPDATE

Staff Experiences

We want our Staff to have the following experiences:

I am able to make better decisions, I have the right information at the point of care

I am actively involved in improving my service

I can use a range of digital communication methods to suit my patients needs

I can work effectively as part of an internal team or with key partners

Connected staff

I have the digital skills, confidence and the right equipment to do my job

I can work more efficiently through new ways of working

I can work more efficiently through new ways of working

What we wanted to achieve over the year

- **Implementation of the EyeCare Programme**

Did we achieve it?
Partly. The project is behind original national schedule of having a single pathway live in OpenEyes by March 2022 but there have been issues with the system - most notably the Enterprise Master

Patient Index (eMPI) not working beyond Cardiff patients. This clinical digital system will allow patient information to be shared between Primary Care and Secondary Care staff more easily.

I have the digital skills, confidence and the right equipment to do my job

What we wanted to achieve over the year

- **Develop a Digital Skills Plan working collaboratively with our key partners**

Did we achieve it?
Partly. Health Education and Improvement Wales (HEIW) have published a draft Digital Skills and Capability Framework and we will be using this to develop a Digital Capability Plan.

I am actively involved in improving my service

What we wanted to achieve over the year

- **Implementation of user centred design in the development/implementation of new systems**

Did we achieve it?
Partly. End user training has just started to be provided nationally. Some staff have attended training but further development is required and linked to Service Design.

I can work effectively as part of an internal team or with key partners

What we wanted to achieve over the year

- **Implementation of a Community Information Sharing System**

Did we achieve it?
Partly. The Welsh Community Care Information System(WCCIS) business case has been approved and a prototype is due to go live in September 2022.

I can work more efficiently through new ways of working

What we wanted to achieve over the year

- **Implementation of Symphony/Welsh Emergency Department System(WEDS)**

Did we achieve it?
Yes. The Go-live went as scheduled for 30th March 2022 in the Ysbyty Glan Clwyd Emergency Department. Post Go-live resources from Estates and ICT have been secured to install the additional wall mounted devices after they have been received. User support has been extended due to capacity issues and the need for timely resolution of issues inherent with implementation. This system offers real time patient journey tracking and timely identification of patient needs and urgency of attendance.

- **Feasibility of a Digital Ward**

Did we achieve it?

Yes. A proposal was taken to the Safe Clean Care Board but the decision was made to roll out Stream across all wards.

- **Assess the feasibility of the implementation of WPRS (e-Referrals internal Secondary Care)**

Did we achieve it?
Yes. Feasibility has been undertaken and WPRS is currently being implemented to maximise benefits before the WPAS Implementation. Full benefits in East and West will be fully realised when WPAS is in the single instance.

- **Maternity Services Information System**

Did we achieve it?
Partly. The National Digital Cymru team attended the Women's Service Board in February 2022 and gave a presentation. The previous specification issued by the network team is to be replaced by a new specification which is being developed and will be issued to Health Boards by the end of June 2022.

- **Pharmacy – Implementation of Medicine Transcribing and E-Discharge Project (MTeD)**

Did we achieve it?
Partly. The project has been re-initiated with Informatics providing additional project resources that started in post during March 2022. Project delivery resources took several months to be secured following the first Project Board meeting in November 2021.Once implemented the MTeD system will support patients from admission to discharge; addressing poor quality discharge communication and associated inappropriate readmissions, transcription errors from hand written prescriptions, and enables efficient and accurate exchange of discharge information between Secondary and Primary Care.

- **Implementation of Medicine Management and e-Prescribing**

Did we achieve it?
Partly. Procurement Framework - The National Framework Evaluation has taken place to review the potential suppliers of an Electronic Prescribing and Medicines Administration (EPMA) system. There were a number of suppliers to review and the outcome will be shared at the next National Board meeting.

Pre-Implementation proposal - Feedback from Digital Health and Care Wales (DHCW) has suggested that decisions regarding funding of pre implementation teams was on hold and therefore, we are yet to understand what our pre-implementation funding will consist of. Once Welsh Government release funding, a pre-implementation team will need to be recruited.

The new system is designed to reduce the risks associated with traditional methods of prescribing and administrating medicines.

- **Implementation of Rheumatology**

Did we achieve it?
Partly. The Rheumatology service will be utilising WPAS as its core system when Go live commences. However, Rheumatology West have been prioritised to receive Cito as they will lose key functionality when the Profile Information Management System (PIMS) is disabled from May 2022. During the last 6 months the Digital Health Record (DHR) team have collaboratively worked with key Rheumatology colleagues to explore and digitally develop a set of core eForms. These

eForms will provide patient data capture fields that support clinical decision which otherwise will be lost.
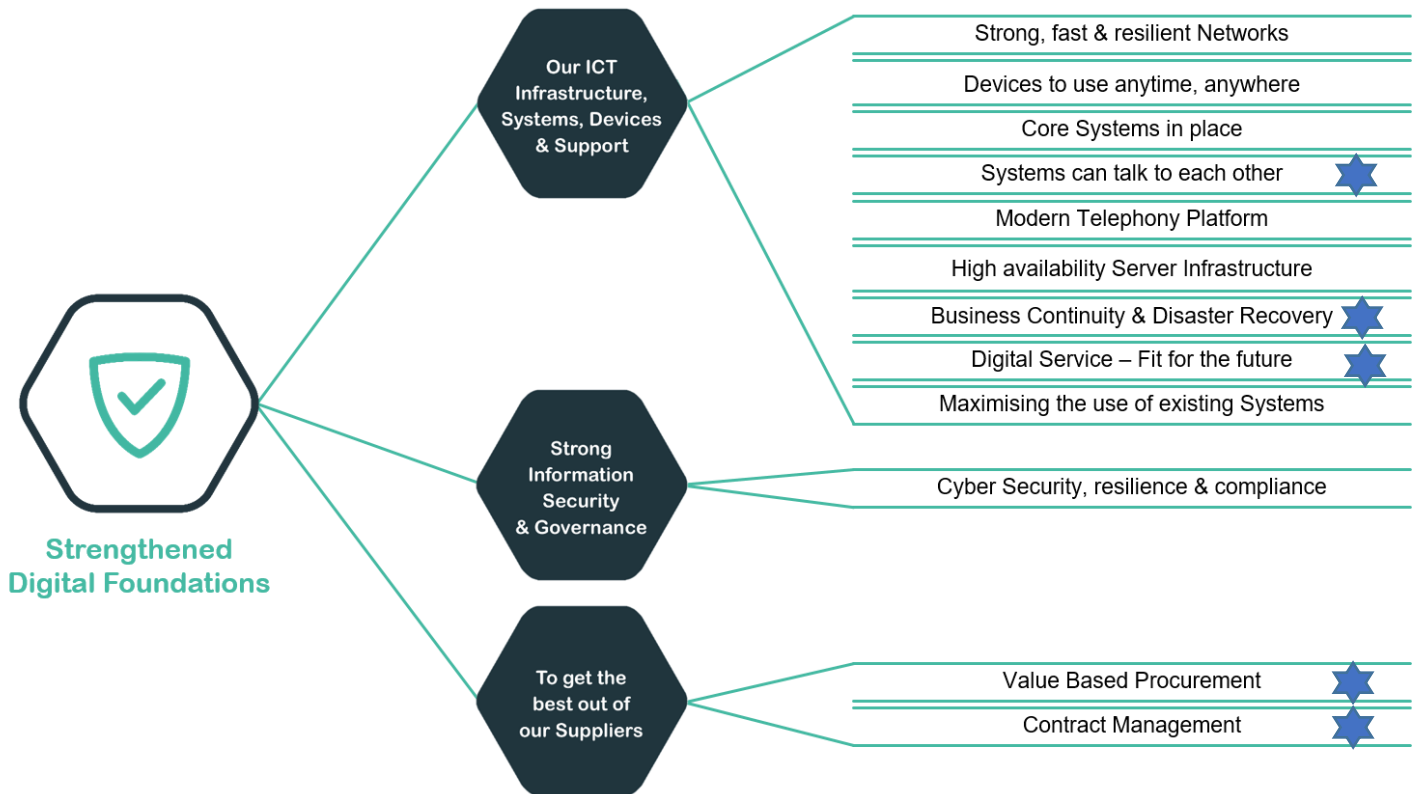
7. THE SIX KEY ENABLERS - UPDATE

To enable us to deliver our Vision, Ambitions and Experiences we have focused on the following enablers:

The areas marked with a ✦ are those we were looking to achieve this year

Our ICT Infrastructure,
Systems, Devices
& Support

Strong
Information
Security
& Governance

To get the
best out of
our Suppliers

Strengthened
Digital Foundations

Strong, fast & resilient Networks
Devices to use anytime, anywhere
Core Systems in place
Systems can talk to each other ✦
Modern Telephony Platform
High availability Server Infrastructure
Business Continuity & Disaster Recovery ✦
Digital Service – Fit for the future ✦
Maximising the use of existing Systems
Cyber Security, resilience & compliance
Value Based Procurement ✦
Contract Management ✦

Our ICT Infrastructure, Systems, Devices & Support Provided Are Suitable For Today & The Future

Systems can talk to each other

The safe portability of patient data using nationally agreed standards and Application Programming Interfaces (API's), will support our 'once for Wales' and indeed more broadly 'once for the patient' approach; i.e. of our patients that are transferred for speciality care, 96% receive this over our closest border into England and as a result we have to work closely on this with our partners and services within and beyond Wales.

Across our organisation we have lots of systems that need to talk to each other to realise the patient experience of providing their information once. When we put new systems in place we will fully assess if they can share information.

Some of our Primary Care and Secondary Care systems don't talk to each other. Primary Care providers have two main systems. This is a big gap in sharing information and impacts the patient journey when they move between the services we provide to patients. This is very challenging, but we want to see if it is possible, firstly on a small scale.

What we wanted to achieve over the year

- **Undertake integration assessments when implementing any new systems**

Did we achieve it?

Partly. Collaborative working has been carried out between Patient Records and Digital Integration and ICT to create a Technical Specification document. This will provide guidance on the integration requirements for new systems and ensure that any potential new systems have already been assessed for compatibility with Health Board systems. We have undertaken the assessment on site systems, and are currently working on the Cloud based systems assessment. A full assessment was also undertaken prior to the WPAS West into Central and was used to predict implementation issues.

Business Continuity and Disaster Recovery

We will continue to develop our disaster recovery plan and undertake regular exercises to provide the assurance that plans are in place and are ready to be invoked in the event of a critical incident.

What we wanted to achieve over the year

- **Business Continuity Plans in place for all systems across the organisation**

Did we achieve it?

Partly. Engagement and training is ongoing. The responsibility for business continuity planning sits with individual areas/departments/System Owners and we are working closely with our colleagues to help ensure robust plans are in place. All business continuity plans are in place across the Informatics Service.

A Digital Service that is fit for the future

Our ICT support and service will further develop customer engagement as to fully capture services requirements so we can meet our customers' expectations, whilst also working towards achieving the Service Desk Institute (SDI) accreditation so we provide industry best practice.
Across Informatics, we will review our current service support model that we provide so that it can best meet the needs and demands of the services; we will also include how we can best use new communication technology.

We know from our response to COVID-19 that we need to have technology that is easily transferable or portable to be able to respond to business continuity incidents.

What we wanted to achieve over the year

- **Review Informatics Support Model and pilot a new model in Mental Health and our Community Resource Teams, incorporating best practice in communication technology**

Did we achieve it?
No. This action was put on hold due to the development of the new Operational Model that Informatics are required to support and develop a new business partner approach. This new model is to be developed in 2022/23.

To Get The Best Out Of Our Suppliers

Value Based Procurement and Contract Management

We will continue to improve our procurement practices to ensure we gain the right systems/services to deliver what we need and that they are fit for purpose for the end user. This is important as it is directly related to our approach to 'once for Wales'. We also will work better with our suppliers to get more financial and social value from them through improved relationships and supplier management.

At a national level one of our key suppliers is DHCW, they have to prioritise and meet the needs of all the Health Boards in Wales. As Health Boards are at different levels of digital maturity DHCW has to ensure they know what our priorities are to deliver this Strategy and work with us to develop our joint plans for delivery on an annual basis, before their plans are approved by the Welsh Government. We also need to monitor the implementation of our joint plan.

What we wanted to achieve over the year

- **Work collaboratively with NHS Wales Shared Services Partnership (NWSSP) to strengthen procurement processes. Use Value Based Procurement where appropriate and to gain maximum value from our contracts (including Social Value)**

Did we achieve it?
No. Value based procurement has just started to emerge nationally and is being led by the National Value Based Health Team. https://vbhc.nhs.wales/professionals/value-based-procurement/

This approach will be led by the new BCUHB Value Based Health Team. Two members of the Informatics Team have already attended national training and are well placed to work closely with the Value Based Health Team.
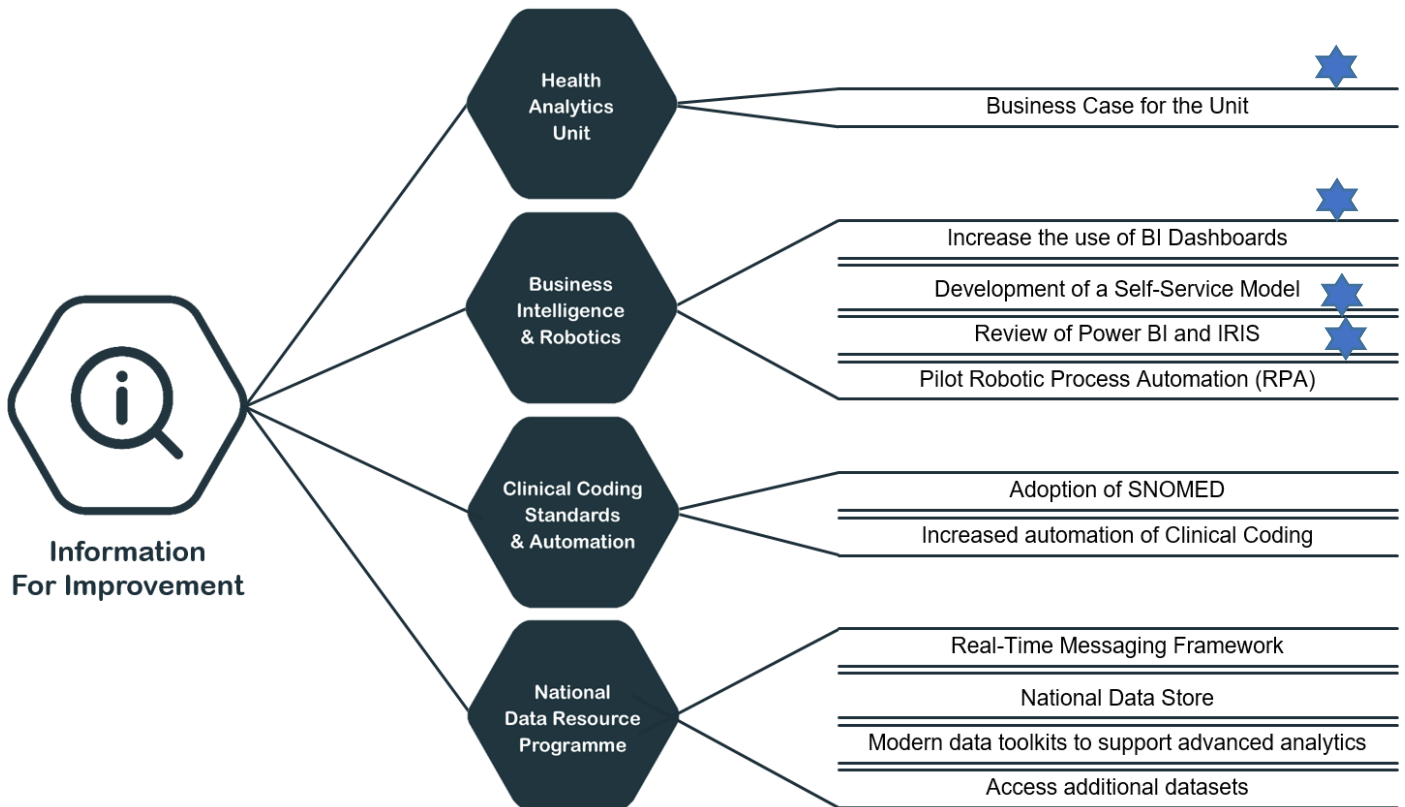
- **Annually develop a joint plan for the year ahead with DHCW**

Did we achieve it?
Yes. We communicate regularly with DHCW and a Plan has been developed and will be updated on an ongoing basis.

The areas marked with a ⭐ are those we were looking to achieve this year

Health Analytics Unit
- Business Case for the Unit ⭐

Business Intelligence & Robotics
- Increase the use of BI Dashboards ⭐
- Development of a Self-Service Model ⭐
- Review of Power BI and IRIS ⭐
- Pilot Robotic Process Automation (RPA)

Clinical Coding Standards & Automation
- Adoption of SNOMED
- Increased automation of Clinical Coding

National Data Resource Programme
- Real-Time Messaging Framework
- National Data Store
- Modern data toolkits to support advanced analytics
- Access additional datasets

Health Analytics Unit

Develop a Business Case for the Health Analytics Unit

A Health Analytics Unit would enable us to create dedicated capacity and further develop skill within the team to undertake modelling and forecasting that proactively supports the organisation with longer term planning.

We will develop a business case to show the added value, costs and benefits that this Unit will bring.

What we wanted to achieve over the year

- **Develop a Business Case for the Health Analytics Unit**

Did we achieve it?
Partly. This has been delayed due to changes in the organisational structure. A paper will be provided to the Executive Management Team (EMT) that outlines the direction of travel in relation to the move from reporting to insight. This links with the Lightfoot (the use of digital intelligence to improve services) project and the Integrated Quality and Performance Report (IQPR) developments, leading the organisation to use data differently and make data driven decisions.

Business Intelligence & Robotics

Increase the use of Business Intelligence (BI) Dashboards

Many of our services use BI dashboards and more services can benefit from their use. We will do this by using and further developing our account management approach working with the services to ensure information gaps are addressed and that information is at the heart of service management and decision-making.

What we wanted to achieve over the year

- **Increase the use of BI Dashboards**

Did we achieve it?
Yes. We have increased the use of BI Dashboards i.e. IPQR across the organisation which provides enhanced visibility and timesaving efficiency which enables more accurate reporting.

Review of Power BI and Information Reporting Intelligence System (IRIS)

We will standardise our reporting templates and develop our brand to provide consistency and assurance to our information users.

What we wanted to achieve over the year

- **Review of Power BI and IRIS**

Did we achieve it?
Partly. This is an ongoing action to review IRIS content to ensure that historic content remains fit for purpose. The file structure is also under review to ensure robust security and continuity arrangements are in place.

Pilot Robotic Process Automation (RPA)

Identify and undertake a RPA Pilot to demonstrate the value it can bring to some repetitive key tasks.
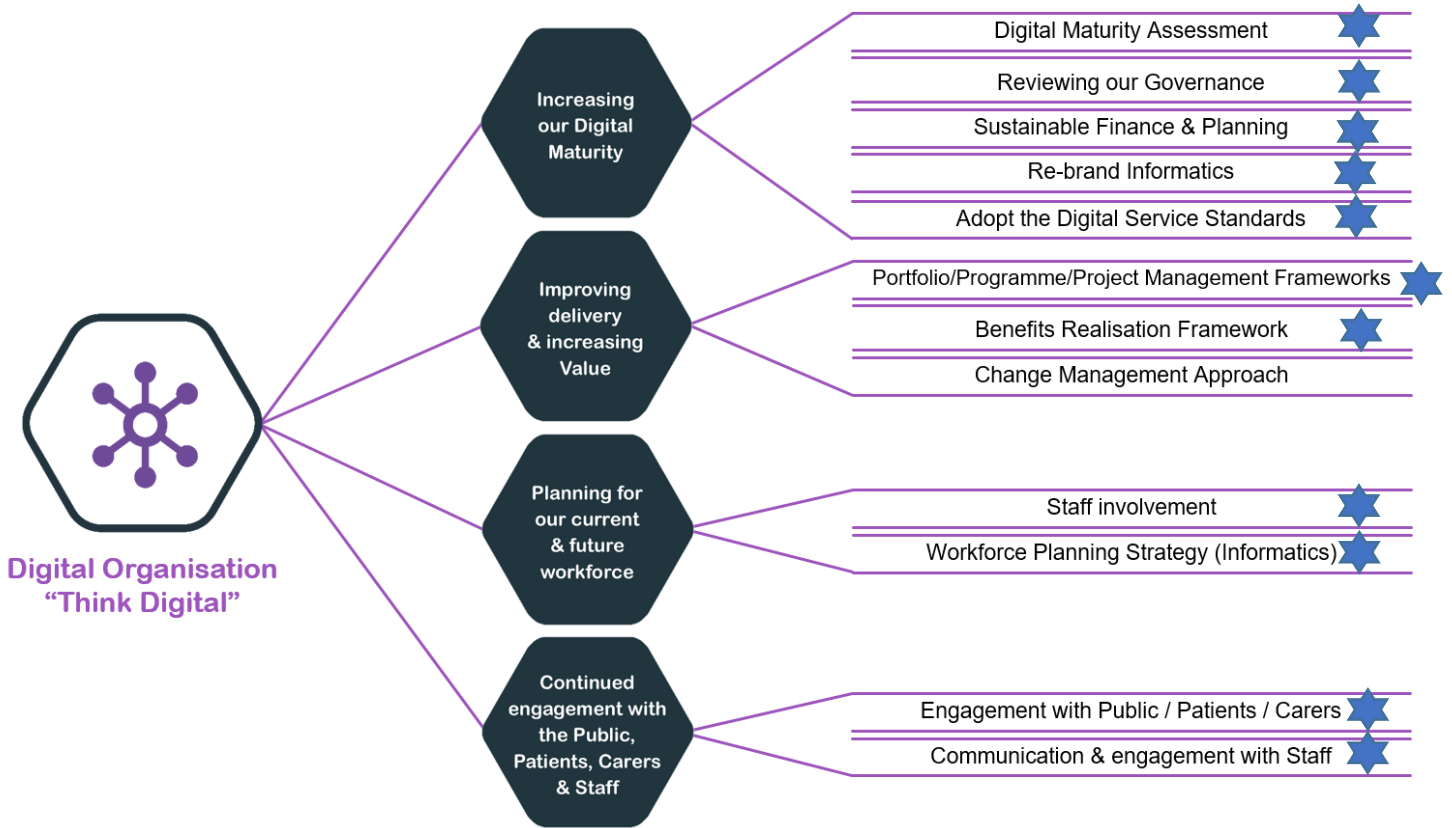
What we wanted to achieve over the year
- **Pilot Robotic Process Automation**

Did we achieve it?
Yes. This is currently being utilised and provides automation to improve productivity with repetitive and time-consuming processes being carried out by an RPA as a replacement for a member of staff.

The areas marked with a ⭐ are those we were looking to achieve this year

Increasing Our Digital Maturity

Digital Maturity Assessment

Our digital maturity will improve through knowing where we are now and where we want to get to with a clear plan in place. We will focus on our ability to plan and roll out digital services, increase the amount we use digital to deliver services and our infrastructure we have to support our digital service delivery.

What we wanted to achieve over the year

- **Baseline our Digital Maturity (Includes Leadership & Capabilities)**

Did we achieve it?

No. This work has not yet started but different models are being researched i.e. Healthcare Information and Management System Society (HIMMS).

Reviewing our Governance

Our systems and processes that we use to lead, control and direct our digital work (our governance) will need to be reviewed and strengthened. This includes our digital expertise and leadership making sure we have the right people with the right skills to contribute across our organisation. Our

governance will also include all the frameworks that we need to make change happen i.e. change, benefits etc.

What we wanted to achieve over the year

- **Undertake a review of Digital Governance as to incorporate the Digital Strategy**

Did we achieve it?

Partly. Corporately there has been a review of governance and a new Governance Framework has been developed. A Digital Delivery Group will be set up under the Transformation and Finance Executive Delivery Group. Draft Terms of Reference have been developed, these will be finalised, and the group set up once approved.

- **Chief Information Officer to sit on the Board (Or Board approved digital representative)**

Did we achieve it?

Yes. A Chief Digital and Information Officer is now in post and sits on the Board and the Executive Management Team.

- **Develop a Communication Plan to raise awareness of the Strategy**

Did we achieve it?

Yes. The strategy has been launched.

Sustainable Finance and Planning

We have limited finances, this is one of the key areas identified by our staff which they felt could impact on the delivery of this strategy. Finance is our biggest risk in the delivery of this strategy, but we have to ensure that we provide the best experiences and outcomes that matter to people, whilst looking after our limited resources and finances.

We will make best use of our existing budget and ensure we deliver value. We will introduce new ways of working such as Portfolio Management which will help us prioritise what we do, delivering what contributes to what we need to deliver our strategic priorities and we will align this new way of working with our existing governance structures.

Where there is short term funding available for digital transformation, we need to maximise the use of this resource but whilst also ensuring what we do will last longer than the length of the funding as short term solutions can have a negative impact on patient and staff experiences.

As our funding is limited and sometimes short term we will also look for additional sustainable funding opportunities, having this strategy and knowing our priorities will make this easier for us to take these types of opportunities.

Our business cases need strengthening for projects across the organisation so that all digital costs are fully identified as well as taking into account the lifetime costs of the systems and equipment we put in place. Again, making the best use of our resources.

Digital planning for the future at a service level needs to improve as it allows us to plan our resources and funding better and for us to be able to deliver the right projects or work that deliver our strategic priorities, provides value and benefits.

What we wanted to achieve over the year

- **Implement a Management of Portfolio approach which includes a full review of governance of Digital Programmes/Projects**

Did we achieve it?
Partly. The draft Management of Portfolio Framework has been developed. This will need to be approved by the Digital Delivery Group and then implemented. The Governance Review has been undertaken, please see **Reviewing our Governance**.

Re-brand Informatics

To modernise our thinking, we will re-brand our Informatics Department so the service are not seen to be just about laptops and phones, but about the wider digital agenda and support with transformational change.

What we wanted to achieve over the year

- **Re-brand the Informatics Service**

Did we achieve it?
No. This has been on hold pending the appointment of the new Chief Digital and Information Officer.

Adopt the Digital Service Standards

Part of becoming a Digital Organisation is that we have to keep the people who use our services at the centre of what we do and we will do this by adopting the Digital Service Standards Wales as an organisation and integrate them into our digital projects, this also supports our approach to Digital Inclusion.

What we wanted to achieve over the year

- **To integrate the Digital Standards Wales into the Programme/Project Documentation**

Did we achieve it?
Partly. A meeting has taken place with the national lead for these standards, there is a possibility that they might change so an initial benchmarking has not been undertaken. BCUHB have offered to be a pilot for the standards.

Improving Delivery & Increasing Value

Portfolio, Programme and Project Management Frameworks

To ensure that we are delivering the right programmes and projects and value we will implement a Portfolio Management Framework, this will help us prioritise what we need to do.

Delivering new systems and ways of working at a pace relies on us having the right amount of staff with the right skills but also implementing new ways of working, breaking down what we need to deliver into shorter tasks, assess more often with users and change our plans as required. We will implement a more agile approach to how we manage our projects and programmes where it is appropriate and will incorporate this into a review of our Project Management Framework and in the development of our Programme Management Framework.

What we wanted to achieve over the year

- **Review of Project Management Framework to become more agile**

Did we achieve it?
Partly. The review has started and a specification developed to use MS Project Web and funding has been secured. A lead Programme Manager has been designated to integrate Agile into the projects and staff are due to attend training in April/May 2022.

- **Develop and implement a Programme Management Framework**

Did we achieve it?
No. This action has been put on hold until the implementation of Management of Portfolios to see if an additional structure is required.

- **Implementation of Management of Portfolio**

Did we achieve it?
Partly. The draft Management of Portfolio Framework has been developed. This will need to be approved by the Digital Delivery Group and then implemented. Due to a change in direction this work will be integrated into a new portfolio, programme and project office.

Benefits Realisation Framework

Having good plans in place will not deliver the change, the work we do has to make a difference and provide value and we need to be able to show this. Benefits will be identified at the very beginning of what we do and we will monitor their delivery. Benefits have to be owned by the services and our Clinical leads will play an important role in embedding this way of working.

Our focus on benefits will be on the patient i.e. safety, outcomes and experience, our staff as well as financial, non-financial, social and environmental. We need to strengthen our knowledge and experience in relation to systems and the impact on these areas; particularly patient safety, this is a key area for research for us.

What we wanted to achieve over the year

- **Develop and fully implement a benefits realisation framework (including Training/Support)**

Did we achieve it?
Partly. A benefits lead has now been designated who has attended training. A draft framework has been developed and a small pilot has been undertaken. We also have a benefits lead on the Regional Treatment Centres (RTC) Digital Sub-Group where the framework will be piloted again on a larger scale.

- **Undertake research on the impact of systems on patient safety and outcomes and integrate the findings into the benefits realisation framework**

Did we achieve it?
No. No resources available to undertake the research.

Planning For Our Current & Future Workforce

Staff Involvement

Increasing our clinical and non-clinical staff involvement in leading and being involved with our digital projects is crucial as they know what they need from systems and any new ways of working, this is part of our End User Design approach.

Our current Digital Clinical Leadership Team needs to be strengthened to also include a Nursing Clinical Lead, to ensure that the nursing profession is fully represented and shaping Our Digital Future.

All clinical staff who take on these lead roles will all have appropriate and ongoing support to continue to develop into their roles; this support will be clinically led by our Chief Clinical Information Officer (CCIO). One of the key roles that has been identified through this strategy is to be the champions for clinical benefits realisation.

This strategy will impact on all of our staff, the wider staff involvement in this change is covered in the Staff Experiences section.

What we wanted to achieve over the year

- **Appointment of a Clinical Digital Nurse Lead**

Did we achieve it?

Partly. The position is being covered on an interim basis. The job description is currently being banded. We are expecting to be able to advertise within the next three months.

- **Fully assess the level of staff engagement in all project engagement and communication plans.**

Did we achieve it?
No. Not started and forms part of the Project Management Framework.

Workforce Planning Strategy for Informatics

To be able to deliver this strategy we need to have the right digital workforce now and a plan for what workforce we will need over the next 5+ years, including our leadership and management. We already know that we have an increasing need for staff with cybersecurity skills and we also expect this key area to become even more complex and expensive.

Training is a key part for planning for our future skill needs; we expect that in 5 years' time our skills needs will be significantly different to today due to the pace of technological change.

Developing our Workforce Planning Strategy is a key area that we will need to work collaboratively on with our local Colleges, Universities and National Bodies such as HEIW, Social Care Wales, DHCW and the Centre for Digital Public Services.

What we wanted to achieve over the year

- **Develop and Informatics 5 year Workforce Planning Strategy and Implement**

Did we achieve it?

Partly. Work has started and the "Understand" phase has been completed but will require updating as it is over 6 months out of date because as a team we have grown and had staff turnover. ICT have started the professionalisation of the service through British Computer Society (BCS) Membership and started to develop the career pathway.

Continued Engagement With The Public, Patients, Carers & Staff

Planned Engagement with the Public, Patients and Carers

The response to our Public/Patient Survey was great, and this strategy has been shaped based on the feedback and comments that we received.

Building on this engagement is important so see if this strategy is making a difference and we will work through our existing networks and also developing an informal Digital Patient Group who will be involved in testing digital solutions and providing views on approaches to digital solutions.

We will also need to continue to engage to assess if we have improved from the Public/Patient view as the engagement has provided us with a baseline to which we can assess our delivery of this Strategy.

What we wanted to achieve over the year

- **DSPP: To work supporting the national development of the Digital Services for Public and Patients Programme. (NHS App)**

Did we achieve it?
Yes. The CCIO is currently chairing the Ethics and Information Governance Assurance Group. Head of PAI attends the Service Delivery and Transformation Assurance Group. Informatics are currently reviewing the representation at all DSPP meetings.
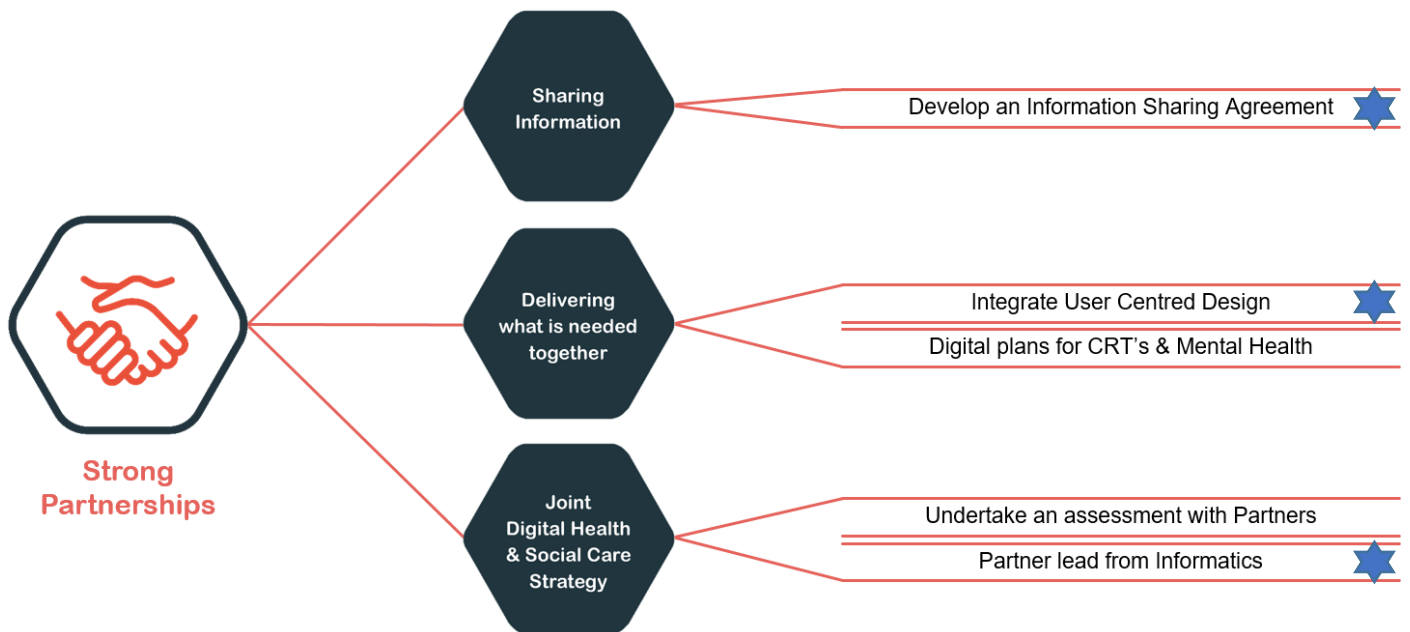
- **Set up a virtual digital patient group**

Did we achieve it?
There has been no reason for this group to date as we have not implemented any patient facing systems.

The areas marked with a ⭐ are those we were looking to achieve this year

Sharing Information

Develop an Information Sharing Agreement

We will work collaboratively with our Partners to develop an Information Sharing Agreement so that we keep information safe and we ensure that information is shared lawfully in line with Data Protection Legislation.

What we wanted to achieve over the year

- **To develop an Information Sharing Agreement and embed it into practice**

Did we achieve it?
Yes. A model Information Sharing Protocol (ISP) has been developed to support integrated working across health and social care, and has been approved by the North Wales Information Governance leads. The ISP is now with Area Teams and Local Authority partners for local sign-up. Organisational Information Governance leads have agreed to work with operational staff to embed the information sharing principles in service delivery. An Information Sharing agreement will justify our data sharing and demonstrate the Health Board has documented relevant compliance issues. It will also provide a framework to help the Health Board to meet the requirements of the data protection principles.

Delivering what is needed together

Integrate User Centred Design

We will train our digital staff to work more co-productively and to integrate User Centred Design into

how we work. We will work co-productively with our community resource and mental health team to develop service digital plans. Our key internal partner is our Information Governance Team, who we will continue to work closely with to ensure we meet Data Protection legislation and ensure privacy by design.

What we wanted to achieve over the year

- **Project Staff to attend training and provided with support to work co-productively**

Did we achieve it?
No. This will be carried out as part of the end user training that is being provided nationally.

Joint Digital Health and Social Care Strategy

Partner Lead from Informatics

We will work with our partners to assess if they would prioritise the development of a Joint Digital Health and Social Care Strategy.

We will provide a partner lead from the Informatics Service to continue to work with partners on digital opportunities that benefit our patients and staff.

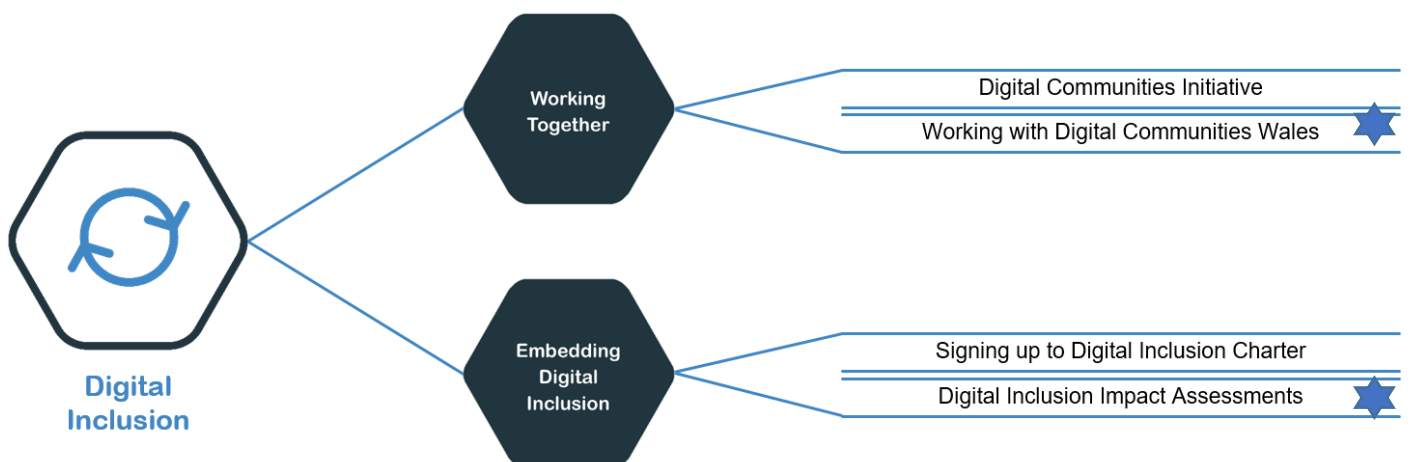**What we wanted to achieve over the year**

- **Allocate a Partner Lead from Informatics**

Did we achieve it?
Yes. The Deputy Head of ICT has been named the Partner Lead for Informatics.

Delivery of Enabler 5 – Digital Inclusion

The areas marked with a ✦ are those we were looking to achieve this year

Working Together

Digital Communities Initiative

We are part of the Digital Communities Initiative and will continue to be a part of this group. We will focus on providing digital training to Health and Social Care Staff to support the most vulnerable to become digitally included; support citizens to engage with virtual consultations and support people with new or existing chronic conditions to use digital technology.*

As we have stated we want to assess if our Local Authority Partners want to have a Joint Digital Health and Social Care Strategy. Due to the significant impact of digital exclusion on people who use our services we want to progress our work with our partners to develop a digital strategy for personalised care and support, which will form part of an overall Joint Digital Strategy.

*Note: this may not be Health Board wide as Local Authorities have to opt in to be involved.

What we wanted to achieve over the year

- **Further develop the relationship with Digital Communities Wales and report on what work they are doing with the Health Board as a way of sharing good practice**

Did we achieve it?
Yes. Engagement with Digital Communities Wales has been carried out and a full report on the work they are involved in with the Health Board can be found in Appendix 2.

Working with Digital Communities Wales (and/or other Welsh Government Programmes which aim to reduce digital exclusion)

Digital Communities Wales: Digital Confidence, Health and Well-being is a three-year Welsh Government funded programme which aims to reduce digital exclusion and help improve basic digital skills levels across Wales

Digital Communities Wales is one of our key partners to improve digital inclusion of both our patients and our staff. We want to continue to work with them and engage with them early when we have patient facing or staff service changes. They are the experts in developing volunteers and digital champions and can advise us on best practice. They are also a key partner in relation to our plans to support our staff in developing their digital skills. (See Ambition2: Connected Staff).

Embedding Digital Inclusion

Signing up to the Digital Inclusion Charter

For our Strategy to be successful Digital Inclusion is crucial so we will sign up to the Digital Inclusion Charter and embed it into our ways of working.

What we wanted to achieve over the year

- **Undertake a Digital Inclusion Impact Assessment for all digital service changes that we make**

Did we achieve it?
No. Assessment has not been finalised to date.

Digital Inclusion Impact Assessments

The impact that we have on our users could be significant, we will fully assess the impact of the digital services that we implement and undertake a Digital Inclusion Assessment (DIIA) utilising the national digital inclusion checklist and incorporating our Socio-economic Duty.

What we wanted to achieve over the year

- **Develop a Digital Inclusion Impact Assessment utilising the Digital Inclusion Checklist**

Did we achieve it?
Partly. The Digital Inclusion impact assessment has been developed and is in draft. Working with the Patient Experience Team to assess its suitability.

Delivery of Enabler 6 – Embracing Innovation

The areas marked with a ⭐ are those we were looking to achieve this year
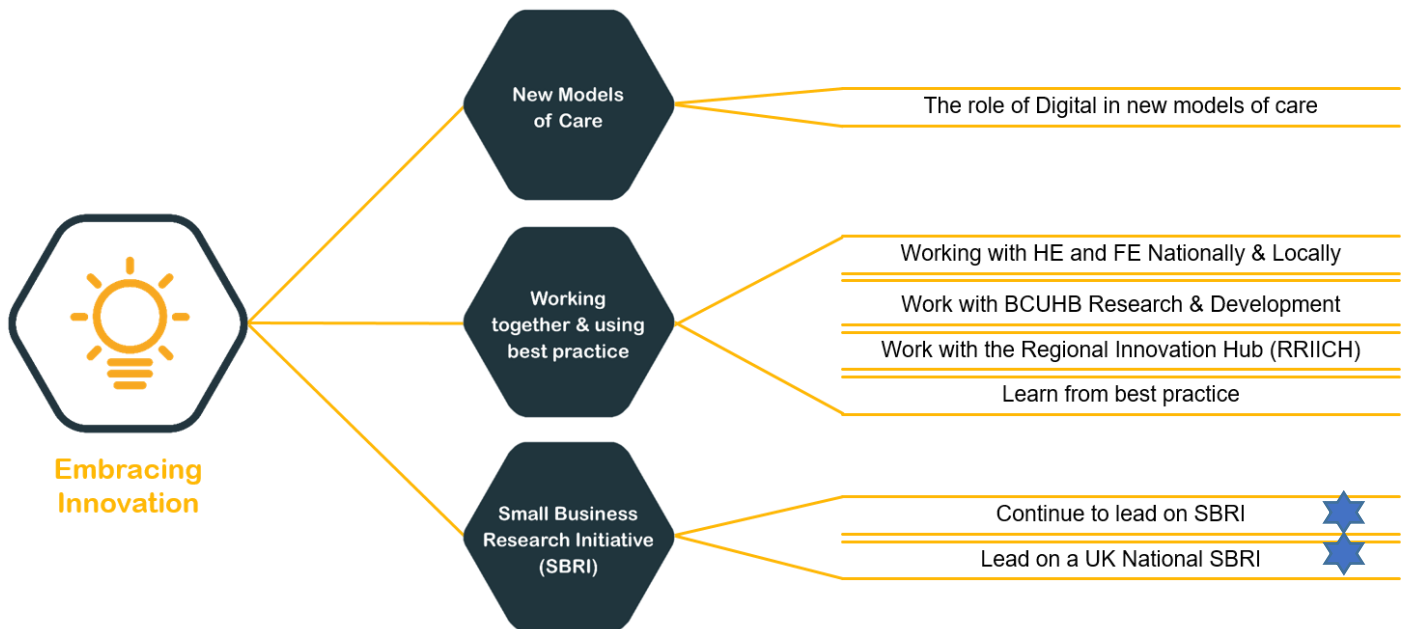
Small Business Research Initiative (SBRI)

Continue to lead on the SBRI

The work that we have done leading the SBRI nationally is award winning and to further drive innovation we are keen to continue with this. This is funded through the Welsh Government currently on an annual basis, with a view to making permanent.

What we wanted to achieve over the year

- **To continue to host the National Small Business Research Initiative (SBRI) Centre of Excellence.**

Did we achieve it?
Yes. Funding received for 2022/23 to continue to host the SBRI Centre.

- To continue to collaborate with colleagues across public sector organisation within Wales to identify unmet needs and run challenges within industry.

Did we achieve it?
Yes. 4 Challenges have been run in 2022.

1. Outpatients Transformation - 2 solutions currently being developed. The first to aid pathologists in detection of prostate cancer and the second being an app to digitise the see on symptoms process and to give patient the information and resources they need for their conditions.
2. Simulation Technology - 2 solutions developed using virtual reality to assist in tracheostomy training.
3. Emotional Health and Wellbeing in Children - 1 App developed with Denbighshire County Council to complement their 5 ways to wellbeing framework.
4. Better Lives Closer to home - 4 very different solutions being developed to assist communities and businesses in COVID-19 recovery.

- **To strengthen the Centre's innovation footprint and standing across Wales**.

Did we achieve it?
Yes. The Centre continues to be approached to assist colleagues across Wales on challenge led innovation. Currently assisting Cwm Taf Health Board on a £1.5 million bid to reduce plastic waste within health. If successful, the Centre will run this challenge.

Mentoring has commenced with Cardiff Council and Monmouthshire Council to run a £2.5 million food challenge.

Expressions of Interest have also been received for challenges from across Wales, which the Centre is currently pulling together ahead of evaluation.

- **To work with procurement colleagues across Wales to ensure procurement and adoption of successful solutions.**

Did we achieve it?
Yes. Ongoing procurement activities to assist colleagues to procure solutions/challenges that are due to close at the end of 2022.
These activities will continue into 2023:
- Writing a draft business case for Cardiff and Vale Health Board for the Simulation Technology solutions.
- Ongoing conversations with procurement and Health Boards around recyclable facemasks, arrangement of masks to trial.

Lead on a UK National SBRI

There are so many opportunities for innovation and one of these is to work at a UK level with key partners to develop a national challenge and response.

What we wanted to achieve over the year

- **To lead on work with the other 4 UK SBRI nations to develop and run a UK wide challenge.**

Did we achieve it?
Partly. Meetings continue to be held with 4 nations SBRI teams and shared challenges are to be discussed for 2023.

Digital Roadmap 2021/22

Digital Health Record (Central Vascular Multi Disciplinary Team - Feb 2022
A single digital view of the patient record supporting integration with local and national systems in Wales and beyond.

Symphony (Central) - Mar 2022
Stand-alone version of the Emergency Care system — go live at Ysbyty Glan Clwyd

Lightfoot - Feb 2022
Health Intelligence system to measure patient outcomes across the whole pathway.

Welsh Nursing Care Record (WNCR) - Feb 2022
A digital nursing system to replace paper nursing documentation within secondary care settings and community hospitals.

My PSA Tracker - Jan 2022
A system for managing specific antigen (PSA) results. It allows the Urology Service to manage, record, track and set thresholds / alerts for all prostate cancer. Patients can access their data and relevant information to support their longer term care.

Attend Anywhere Virtual Consultations - Dec 2021
A secure web-based communication platform that enables clinicians to hold video consultations with their patients.

Wellsky - Nov 2021
Pharmacy stock management, dispensing and ordering system replacement (amazon for drugs)

Symphony (East Acute) - Sep 2021
A stand-alone version of the Emergency Care system — go live at Ysbyty Maelor Wrecsam

Symphony (East Minor Injuries Unit) - Oct 2021
A stand-alone version of the Emergency Care system.

Symphony (West Minor Injuries Units) - Apr 2021
A stand-alone version of the Emergency Care system — go live at Alltwen, Penrhos Stanley, Bryn Beryl and Llandudno.