



Cwm Taf University Health Board
Digital Health Strategic Outline Programme

16th March 2017

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Version	Date	Author	Comments
V1.0	03/03/2017	Atos Consulting	Final draft for review
V1.1	16/03/2017	Atos Consulting	Updated following initial review

1 EXECUTIVE SUMMARY

1.1 Introduction

This Strategic Outline Programme (SOP) document sets out a programme of strategic investment in information and ICT to enable the provision of high quality care and support service change and modernisation across all care settings within the Cwm Taf University Health Board (CTUHB).

This SOP details the technical infrastructure and information required to deliver the Digital Health Strategy across the next five years and is therefore integral to the success of the Health Board's strategic plan. Furthermore, the SOP outlines the parameters set for the programme, the key projects split by strategic themes that constitute the programme and their critical path for delivery.

The total investment required to fulfil this transformational change is **£20,093,312** of capital funding and **£5,772,936** of revenue funding over the five year period from 2017/18 to 2021/22.

1.2 Recommendations

It is recommended that the Welsh Government support the proposals set out in this SOP so that Cwm Taf University Health Board can progress to the next stage of Business Case developments.

1.3 Purpose

The purpose of this document is to seek approval of the strategic context and the approach to delivering a programme, which is key to the implementation of the Digital Health Strategy.

This document will facilitate the setting of strategic budgets and the timely production and submission of supporting Business Cases for specific and phased elements of the programme.

The SOP has been prepared using:

- Welsh Government – Revised Capital Guidance for the NHS in Wales (18th June 2013)
- Welsh Government – Green Book Guidance on Public Sector Business Cases using the Five Case Model (October 2012)
- Welsh Health Circular (2007) 052 – Public Sector Business Cases using the Five Case Model: A Toolkit Guidance and Templates
- HM Treasury – The Green Book: Appraisal and Evaluation in Central Government: Treasure Guidance (2003) and supplementary Green Book guidance
- The Capital Investment Manual (DH, 1994) – plus subsequent updates

2 THE STRATEGIC CASE

The Strategic Case describes the strategic context and the case for change to understand why the Cwm Taf UHB needs to undertake the Strategic Outline Programme

2.1 Organisation Overview

The resident population of the UHB area (Merthyr Tydfil and Rhondda Cynon Taf) is estimated to be 295,135 in 2013, accounting for 10% of the Welsh population. Almost 81% of the population live in Rhondda Cynon Taf Local Authority and the remaining 19% in Merthyr Tydfil. The UHB's catchment population increases to 330,000 when including patient flow from the Upper Rhymney Valley, South Powys, North Cardiff and the Western Vale.

The UHB provides and/or commissions a full range of hospital and community based services to the residents of Rhondda Cynon Taf and Merthyr Tydfil. These include the provision of local primary care services; GP Practices, Dental Practices, Optometry Practices and Community Pharmacy and the running of hospitals, health centres and community health teams. The UHB is also responsible for making arrangements for the residents of Rhondda Cynon Taf and Merthyr Tydfil to access health services where these are not provided within Cwm Taf.

Cwm Taf's main hospital and community based sites are:

- Prince Charles Hospital, Keir Hardie University Health Park, Ysbyty Cwm Cynon, Ysbyty George Thomas, Ysbyty Cwm Rhondda, Dewi Sant Hospital, Pontypridd and District Cottage Hospital

In the primary care sector, Cwm Taf has:

- 77 Community Pharmacies, 35 Dental Practices, 45 General Medical Practices, 28 Optometry Practices

Cwm Taf UHB employs on average 6,943 whole time equivalent (WTE) staff with a headcount of approximately 7,892 and has a total pay bill of circa £297M per annum.

2.2 Business context

The UHB has defined its strategy in the IMTP 2016-2019¹, setting out a healthcare vision which aligns to the 'Cwm Taf Cares' philosophy:

Care for our communities and patients by preventing ill-health, promoting better health, providing excellent services and reducing the need for inpatient care wherever possible through the provision of strengthened home, primary and community care.

The IMTP¹ sets out the priorities for the 3 year period, shaping and driving the activities and strategies across the health board:

¹ *Cwm Taf University Health Board integrated medium term plan 2016-2019*

- ▶ a **reduction in ill health** across our communities
- ▶ **strengthened core primary care** services through extending enhanced services across federated practices to improve equity of access
- ▶ the **development of Cluster Hubs** to further drive locality working, thus facilitating a demonstrable shift of service from secondary to primary care
- ▶ **implemented innovative workforce and service models in primary, community care services** which have reduced unnecessary hospital admissions and delivered a demonstrable shift of services from secondary to primary care
- ▶ **delivered truly integrated services** with our partners across areas such as health and social care and reablement services, particularly for children and the frail elderly
- ▶ **implemented redesigned secondary care service** models across our 'fragile' service areas, as part of wider alliance arrangements with our partner Health Boards and Trusts
- ▶ **embedded prudent healthcare** in our service planning and delivery.

Additionally, the IMTP describes strategic objectives, which give clarity on what is trying to be achieved by the UHB and therefore this SOP:

Strategic Objectives¹

1. **To improve quality, safety and patient experience**
2. **To protect and improve population health**
3. **To ensure that the services provided are accessible and sustainable into the future**
4. **To provide strong governance and assurance**
5. **To ensure good value based care and treatment for our patients in line with the resources made available to the UHB**

2.2.1 External challenges

The health board vision and objectives must be delivered in the context of financial, societal and workforce challenges that are affecting the healthcare industry in general and specifically the UHB. Specific challenges include:

Continued cost pressures – continued economic pressures and budget reduction target of £37.7m over 3 years¹

Skill shortages – As a semi-rural board, attracting and retaining talent across clinical and non-clinical services is an ongoing challenge with primary care sustainability an ongoing challenge and nurse shortages leading to temporary bed closures in 2015²

Ageing workforce – The issue of attracting skills is made more urgent when considering the number of over 51s in the workforce, with high percentages (19% to 28%) in key areas of nursing and midwives, additional clinical services and Administration¹

High degree of inter board patient flow – The Welsh centre of excellence model and Cwm Taf's location means it experiences a high degree of patient flow in and out of the health board throughout a patient's care

Shifting care settings – To alleviate pressure on hospital resources and simultaneously provide better patient-centric care and meet patient expectations, care delivery is shifting from hospital in-patient setting to in-community and in-home care including patient self-care

Need to reduce care quality variance – The statistics are clear that care quality variance is high and needs addressing. For example, care varies based on which day patients are treated: For one UK hospital mortality rates are 11% higher for patients admitted on Saturdays and 16% higher on Sundays compared to a Wednesday³

Providing patient-centric services – Patients are demanding more care ownership, personalisation, consolidation, self-treatment and increased accessibility to all services and patient records

Sector-wide digital disruption and innovation of care models – Accelerated clinical research in bioinformatics, access to real-time digital records for clinical empowerment, analytics for pre-emptive care, smart devices for monitoring and asset tracking are just some of the digital health sector disruptors.

Digital proliferation is driving patient and employee expectations – Expectations are influenced by increasing adjacent sector digital maturity. For example, in the travel sector passengers can now check-in online and receive digital queue and travel updates. This has led to a completely paperless journey and improved customer satisfaction. Adjacent sectors have tested and proved a number of emerging technologies for the health sector to consider

2.2.2 Digital Health Strategy⁴

In March 2017 a new strategy was developed, the Digital Health Strategy, which defines how the UHB will exploit Digital, ICT and information to aid in overcoming the business challenges and achieving the IMTP objectives. The strategy is in support of the National strategies⁵⁶ and aims to simultaneously contribute to the national objectives whilst addressing local needs.

² Cwm Taf University Health Board Annual Report 15-16

³ Research from Royal Free London

⁴ CTUHB Digital Health Strategy 2017

⁵ A Digital Health and Social Care Strategy for Wales

2.2.2.1 Digital Informatics Vision

A new vision was developed which will address the issues and opportunities being faced:

Digital Health Vision:
CTUHB will aim to become a digital exemplar within NHS Wales, as an innovator and early adopter of digital technologies and approaches, to enhance care quality, better engage with patients and deliver sustainable services

This provides clarity on the goal that any transformation activity, including this strategic outline programme, should be striving towards.

2.2.2.2 Digital Health Strategic Principles

To guide ICT decision making and ensure alignment of initiatives to the vision, strategic principles have been defined:

- | | |
|---------------------------------|--|
| 1. National solutions | National solutions will be adopted to drive efficiency and build in interoperability |
| 2. Digital first | Exploiting digital as the first choice to enhance and optimise services, raising quality and increasing clinical time |
| 3. Data driven | Using analytic insights to drive decisions and thereby improve quality and efficiency of services |
| 4. Proactive trailblazer | Acting as a test bed and incubator for NHS Wales, developing and trialling new solutions on behalf of and in collaboration with the other boards |
| 5. Whole experience | Solutions will address the patient and employee experience across the whole patient journey |

⁶ NWIS Annual review 2016

2.2.2.3 Strategic Solutions

To realise the vision, the strategy focuses on strategic solutions that will transform CTUHB into a digital healthcare leader. The table below lists the 8 strategic themes identified to drive the realisation of UHB's core strategic objectives:

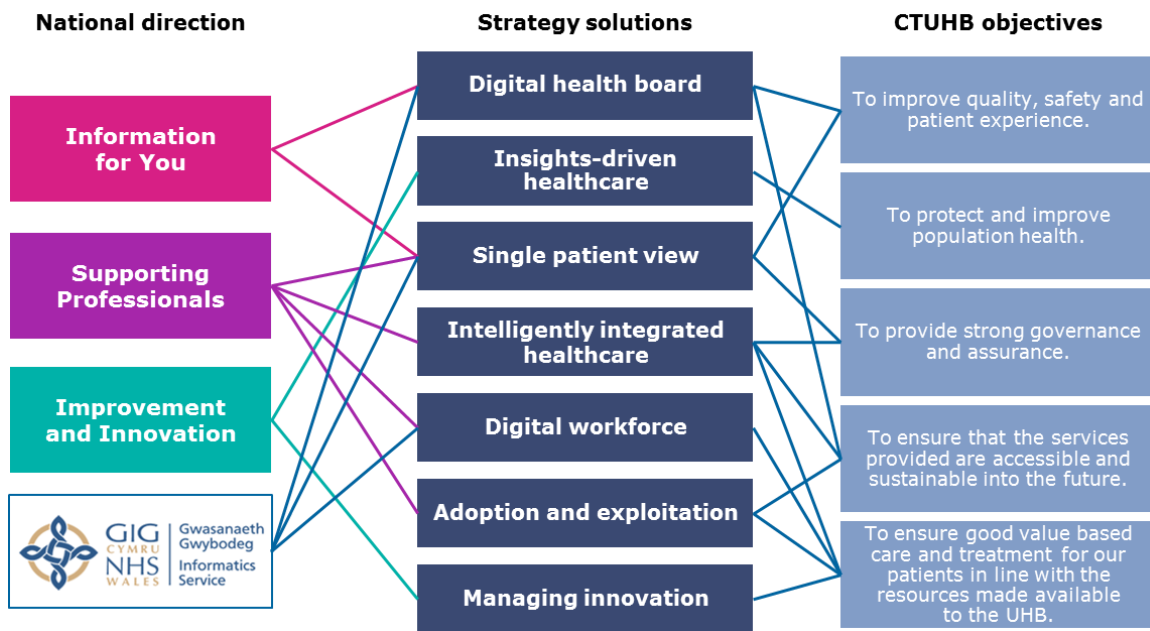
Digital health board	Digitising the processes across the health board that support patients and employees, removing manual effort, eliminating paper and capturing valuable, reusable data as standard
Insights-driven healthcare	Providing the platform to interrogate and analyse multi-source data, surfacing previously unknown insights on performance and driving optimal decision making
Single patient view	Managing a single, digital view of a patient's care and history, improving patient centric care, reducing delays in information seeking and removing re-keying errors
Intelligently integrated healthcare	Intelligently integrating processes and systems, providing two-way communications across silos and implementing smart workflow to automate key process interactions, removing manual effort and baking in zero-error processing
Digital workforce	Providing the digital tools to support employees in their day to day activity, reducing admin and travel time and increasing clinical contact
Adoption and exploitation	Providing the resources, structures and toolkits to properly manage identification, implementation and adoption of new solutions; and supporting staff in exploiting the systems they have access to
Managing innovation	Managing and encouraging innovation with innovation forums and idea receptors; as well as a governance and funding model to turn them into reality
Digital enablers	Putting in place the enabling infrastructure and maturing the key supporting capabilities needed to deliver the strategy

These strategic solutions will be implemented through a programme of initiatives, including adoption of the national projects and solutions, undertaking of projects in collaboration with other health boards and local Cwm Taf projects to meet specific or unique needs.

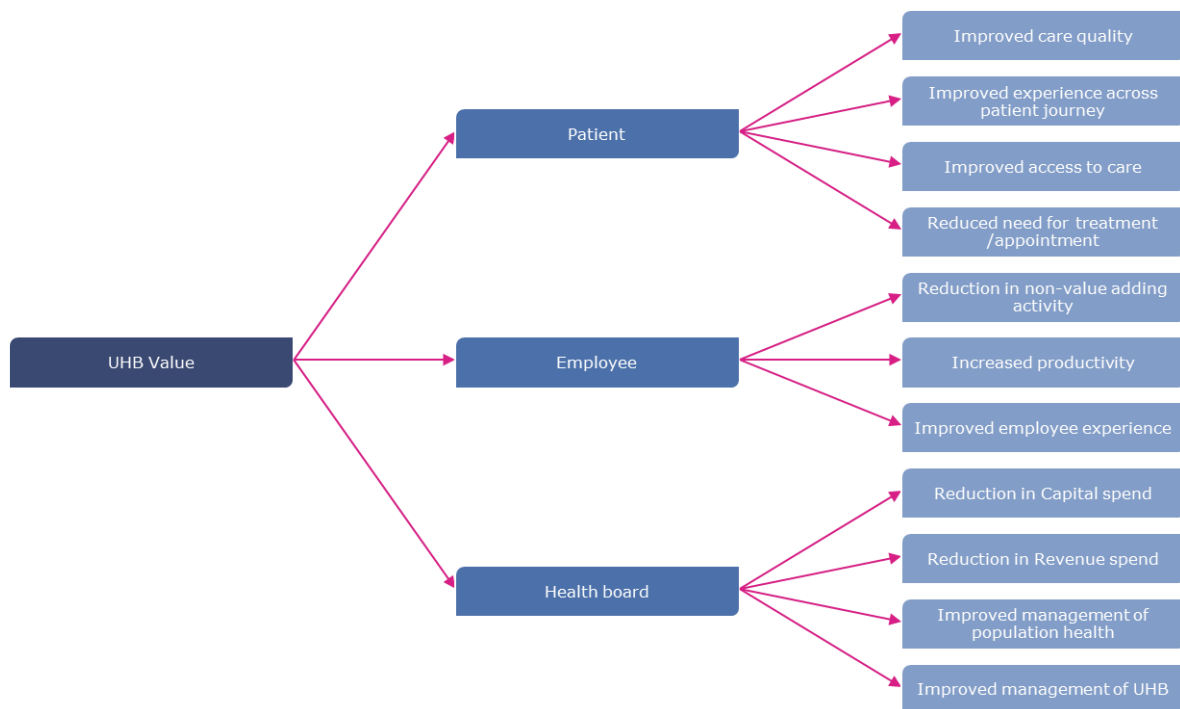
They represent a macro prioritisation of efforts towards achieving these solutions and will shape the expenditure of ICT resources.

2.3 Business benefits

The solutions align to and support the National strategy and directly contribute to CTUHB's healthcare objectives as shown



The strategic solutions will be implemented through a programme of initiatives and to assess their individual merits, a UHB value model has been created to show the different business benefits that will be achieved by implementing the strategy.



This value model, which is based on information from the IMTP⁷, will provide a framework to quickly appraise the expected benefits from a project against strategically important value categories. It covers three dimensions of the Patient, the Employee and the Health Board;

⁷ Cwm Taf University Health Board three year Integrated Medium Term Plan 2016/2017 – 2018/2019

helping to ensure a balanced view of benefits and not focused on only one or two aspects such as financial gains.

2.4 Transformation programme

The transformation programme has been defined with a portfolio of projects to implement the strategic solutions.

These include active participation in national projects such as the Welsh Community Care Information Solution (WCCIS), collaborative projects developed in partnership with other health boards such as the Theatres System Replacement and local Cwm Taf projects such as Remote Storage Temperature Monitoring. The programme contains system related projects, new and enhancements, as well as projects to address operating model concerns and detailed design reviews.

The full definition of the projects can be found in the accompanying document “**CTUHB Digital Health Strategy – Project Catalogue**”. The project list and summary information is provided in the table below.

Strategic solution	Ref	Project name	Description	Scope	Priority
1. Digital health board	1.01	Choose Pharmacy rollout	Rollout and adoption of the Choose Pharmacy solution for electronic recording, display and sharing of community pharmacy consultations, medication variation and pharmacy prescribing	National	Medium
1. Digital health board	1.02	CYPRIS	Enhance electronic recording, display and sharing of child health data to reflect the Healthy Child Programme, e.g. key milestones	National	Medium
1. Digital health board	1.03	Welsh Patient Referral Service (WPRS)	Deliver online e-referral system between tertiary and secondary care clinicians and GPs	National	High
1. Digital health board	1.04	Welsh Results and Reports Service (WRRS)	Rolling project to enhance and increase the content, enriching the environment	National	High
1. Digital health board	1.05	Welsh Laboratory Information Management System (LIMS)	Deliver a National, Standardised Pathology System which integrates across other systems	National	High
1. Digital health board	1.06	Welsh Community Care Information Solution (WCCIS)	Delivery of an Integrated Health and Social Care System	National	High
1. Digital health board	1.07	Welsh Hospital Electronic Prescribing and Medicines Administration (WHEPMA)	Delivery of a national e-prescribing solution for Wales	National	High
1. Digital	1.08	Medical	Scanning of existing paper medical	Local	High

health board		Records Digitisation	records to be managed as digital records.		
1. Digital health board	1.09	Radis merger	Consolidating the two separate RadIS instances into a single system, hosted by NWIS	Local	High
1. Digital health board	1.10	Digital dictation	Piloting digital dictation and transcription to reduce manual re-keying	Local	Medium
1. Digital health board	1.11	Welsh Clinical Portal (WCP) extensions	Ongoing programme of work to extend the use of WCP. Planned packages of work include MTeD/eDAL, WISDM and GPTR	Local	High
1. Digital health board	1.12	Ophthalmology system redesign	Reconfiguration of ICT systems used within Ophthalmology to merge the two systems, enable the new cameras to be used and to store images for access from anywhere	Local	Medium
1. Digital health board	1.13	Implementation of electronic prescribing in ITU	Configure the ICCA system to enable clinicians and pharmacists to prescribe electronically	Local	Medium
1. Digital health board	1.14	MITS maternity system - Booking form	MITS to be updated to reflect the new 2016 All-Wales Ante natal Booking Form	Local	Medium
1. Digital health board	1.15	Interim acute medicine, bed management and handover system	Development of interim system to improve patient management in Acute Medicine through the introduction of Patient Status at a glance on screens. It will allow demand management in real time and help overall bed management whilst awaiting national Patient Flow project	Local	High
1. Digital health board	1.16	Paediatric diabetes system	Install new SaaS service for Paediatric Diabetes -Twinkle, replacing paper processes	Local	Medium
1. Digital health board	1.17	Sexual Health system enhancements	Increase Lillie functionality by installing extra modules to support clinics and mobility- Internet booking\Touch screen Module\ SMS texting\ Ireach	Local	Medium
1. Digital health board	1.18	ICNET deployment	Local deployment and configuration of the ICNET system to aid in managing infection prevention and control	Local	Medium
1. Digital health board	1.19	Welsh Point of Care	Deployment of ConWorx nationally to facilitate secondary care connectivity and centralise results and reporting	National	Medium
1. Digital health board	1.20	Community Digital INR Self Monitoring	Use of a personal testing machine at home which allows people to perform self-testing	Local	Medium
1. Digital health board	1.21	Remote storage and lab temperature monitoring	Installation of wireless monitors to measure and report on reagent storage and laboratory operational temperature	Local	Medium
1. Digital health board	1.22	Haemonetics Blood Track	Replace local blood tracking and fading solution which will be incompatible with the LIMS solution.	Local	Medium

			Required to maintain functionality		
1. Digital health board	1.23	Theatres replacement	Working in collaboration with ABMU Health Board and NWIS to deliver a new Pre-Assessment and Theatre System	Collaborative	Medium
1. Digital health board	1.24	Digital pathology	Deliver the infrastructure to support the use of digital images by pathology departments including Histology/microbiology/haematology	Collaborative	Medium
1. Digital health board	1.25	Paediatric Mobile application (Chai)	Mobile application to collect admission data in paediatrics	Collaborative	Medium
1. Digital health board	1.26	Patient identification	Simple, automated solution to identify and link a patient to the relevant medical notes and items (e.g. samples), using the appropriate mix of tags and barcode technologies	Collaborative	Medium
1. Digital health board	1.27	Digital process review	Business process review to identify all UHB processes, understand how well they are digitally supported and identify opportunities to enhance	Local	High
1. Digital health board	1.28	Enterprise Scheduling	Implementation of integrated resource scheduling capability to coordinate, allocate, book and order the human and non-human resources needed to deliver a service	Collaborative	Medium
1. Digital health board	1.29	Telehealth	To develop a tele-dermatology service to include all lesion referrals.	Collaborative	Medium
1. Digital health board	1.30	111	Replaces the end of life system and delivers a National 111 Wales Solution	Collaborative	Medium
1. Digital health board	1.31	Patient flow	Deliver an e-solution through which all Health Boards in Wales can deliver more effective patient pathways and patient flow through the care system	Collaborative	High
1. Digital health board	1.32	Interim E-Prescribing	Deliver an interim Cwm Taf E-Prescribing solution whilst awaiting national WHEPMA project in 2019/2020	Local	High
2. Insights-driven healthcare	2.01	National Data Warehouse, Business Intelligence & Predictive Information Services	Provision of a national data warehouse which CTUHB can interrogate or extract from, as well as provision of capability to undertake national data analysis	National	Medium
2. Insights-driven healthcare	2.02	Clinical insights platform extension (tooling and data architecture)	Reviewing, consolidating and extending the analytics platform, assessing the UHB's data architecture and defining the target information architecture	Local	High
2. Insights-driven healthcare	2.03	Master data management implementation	Implementation of MDM to streamline and facilitate accurate data sharing	Local	Medium

2. Insights-driven healthcare	2.04	Exploiting clinical insights platform	Review of the ways in which analytics is used across the UHB, identifying use cases and supporting staff in accessing and exploiting the capability	Local	High
3. Single patient view	3.01	Patient Portal	Deliver system which allows Patients to manage their own health and well being, incorporating national pathfinder	National	Medium
3. Single patient view	3.02	Welsh Care Record Service (WCRS)	Deliver clinical documents in electronic format and make available across Wales	National	High
3. Single patient view	3.03	WIAS	CTUHB joining the national archive solution pilot (currently ABHB and Velindre trust) which will enable PACS images to be viewed in WRRS from across Wales	National	High
3. Single patient view	3.04	Vision 360	View and add to patient records from GP practices that use Vision and EMIS Web systems.	Local	High
4. Intelligently integrated healthcare	4.01	Implement Enterprise Service Bus (ESB)	Implementation of an enterprise service bus to enable and manage integration across systems	Local	Medium
4. Intelligently integrated healthcare	4.02	Detailed architecture review and tech roadmap	Detailed review of the current architecture and development of technical roadmap covering 1) Architecture patterns and technology adoption including SaaS, PaaS, ESB and APIs; and 2) Detailed roadmap for the entire application portfolio including digitisation and rationalisation	Local	Medium
4. Intelligently integrated healthcare	4.03	Strategy and Proof of Value for technology to track equipment, assets, patients and resources	Strategy for how and where tracking technologies will be used, with ensuing Proof of Value project to test and demonstrate the value	Collaborative	Medium
5. Digital workforce	5.01	Mobile Device Management Strategy	Expanding the mobile solution providing mobile access to both the board desktop and mobile apps designed for application delivery	Local	High
5. Digital workforce	5.02	Microsoft licensing upgrades	Modernising Microsoft licences to ensure CTUHB has access to the software it needs, such as Microsoft Office 2016.	Local	High
5. Digital workforce	5.03	Citrix refresh	Through use of the Microsoft subscriptions, the deployment of Citrix can be modernised, delivering Office 2016	Local	High
5. Digital workforce	5.04	Rollout of Skype for Business	Rollout and adoption support for the national Skype solution. Dependant on Citrix upgrade and Microsoft licence projects	Local	High
5. Digital workforce	5.05	Rollout of MFDs and Managed	Ad-hoc rollout of advanced print solution using Multi-Functional	Local	Medium

		Print Services	Devices as department budgets become available		
5. Digital workforce	5.06	IT Self-Service web portal	Rollout of a self service call logging management system that users can use to log service requests and incidents.	Local	Low
5. Digital workforce	5.07	Employee Self-Service - Kiosks and apps	Providing access through Kiosks and Apps to ESS for the ~2500 non IT users within the UHB workforce; and the requisite uplift of service capability to support the additional users	Local	Medium
5. Digital workforce	5.08	Single sign on	Implementation of single / common sign on for all systems, using NADEX	Local	Medium
6. Adoption and exploitation	6.01	Implementation of ITOM enhancements	Implementation of ITOM recommendations including the revised steering group, the new roles for CTUHB enterprise architect, TSO/BSO and IMT business partners; and the development of PPM, Business Change and Business Relationship Management capabilities	Local	High
7. Managing innovation	7.01	Innovation management and delivery	Implementation of process, tools, governance and funding mechanism to encourage and capture ideas, assess their value and viability and to deliver them	Local	Medium
8. Digital enablers	8.01	TrackIT database population	Population of ICT Asset Management database	Local	Medium
8. Digital enablers	8.02	Pathology system backup hardware	Move telepath hardware to supported platform or purchase second user hardware to act as warm standby Required to keep BT and CP operational locally	Local	Medium
8. Digital enablers	8.03	Pathology Managed service contract renewal support	ICT support for the pathology service renewal	Local	Medium
8. Digital enablers	8.04	Switchboard rationalisation	Switchboard rationalisation, in conjunction with Facilities, leading to a standardised telephony experience that is future proofed and supported.	Local	High
8. Digital enablers	8.05	Continued infrastructure refresh programme	Ongoing replacement and upgrade of IT estate including server replacement, XP and 2003 eradication. Rolling replacement of data network to provide the latest switching technologies. Delivery of more robust PSBA connectivity through BT's Engagement programme.	Local	High
8. Digital enablers	8.06	Cyber security	Under direction from NWIS, actions to protect information systems from theft or damage to the hardware, the software, and to the information on them, as well as from disruption or misdirection of the services they	Local	High

			provide. Activity includes system/device hardening.		
8. Digital enablers	8.07	Enterprise monitoring	Implementation of e2e enterprise service monitoring to better understand, manage and improve the services being delivered	Local	Medium
8. Digital enablers	8.08	Data centre consolidation	Migration from on site server rooms to managed data centre services	Collaborative	Medium

2.5 Transformation programme benefits

Each project in the programme has been appraised to identify the business benefits it will deliver, both as a direct outcome of the project and as an indirect consequence of the project's outcomes.

Where possible, the benefits have been quantified and this detail can be found in the Financial Case. The table below shows the appraisal of the projects using the value model described in section 2.3. It identifies where a project is expected to directly contribute to a business benefit, "D", and where it will indirectly contribute to a benefit, "I".

Ref	Project name	Improved care quality	Improved experience across patient journey	Improved access to care	Reduced need for treatment / appointment	Reduction in non-value adding activity	Increased productivity	Improved employee experience	Reduction in capital spend	Reduction in revenue spend	Improved management of population health	Improved management of the UHB
1.01	Choose Pharmacy rollout						I	D				I
1.02	CYPRIS	I				D	I	D				I
1.03	Welsh Patient Referral Service (WPRS)		D			D	I	D				I
1.04	Welsh Results and Reports Service (WRRS)		D			D	I	D				I
1.05	Welsh Laboratory Information Management System (LIMS)		I			D	D	I				I
1.06	Welsh Community Care Information Solution (WCCIS)	I	D			D	D	D				I
1.07	Welsh Hospital Electronic					D	D	D				I

	(WCRS)											
3.03	WIAS	I	D	I		D	I					
3.04	Vision 360	I	D			D						I
4.01	Implement Enterprise Service Bus (ESB)		I			D	I	D				I
4.02	Detailed architecture review and tech roadmap		D	I		I	I	D	D	D		I
4.03	Strategy and Proof of Value for technology to track equipment, assets, patients and resources	I				D						I
5.01	Mobile Device Management Strategy			I		D	D	D				I
5.02	Microsoft licensing upgrades						D			I		
5.03	Citrix refresh					I	I			I		
5.04	Rollout of Skype for Business					D	D	D		D		
5.05	Rollout of MFDs and Managed Print Services							D		D		
5.06	IT Self-Service web portal					D	I	D		D		
5.07	Employee Self-Service - Kiosks and apps							D				D
5.08	Single sign on					D		D				
6.01	Implementation of ITOM enhancements						I	I				D
7.01	Innovation management and delivery	I								I		I
8.01	TrackIT database population								I	I		D
8.02	Pathology system backup hardware							I	I			
8.03	Pathology Managed service contract renewal support						I					
8.04	Switchboard rationalisation		I				D			D		
8.05	Continued infrastructure refresh programme							I				I
8.06	Cyber security											D
8.07	Enterprise monitoring											D
8.08	Data centre consolidation		I					I				D

2.6 Risks, constraints and dependencies

2.6.1 Key risks

Throughout the development of the strategy and this SOP, the transformation as a whole and the individual projects were assessed to identify the primary risks to the programme's success. The following table is a non-exhaustive list of the key risks identified

Ref	Title	Description
R01	Insufficient	There is a risk that the benefits will not be fully realised due to

	funding	insufficient funding being available to deliver the programme
R02	Stakeholder capacity	There is a risk that projects will be delayed and/or will not meet requirements due to the primary stakeholders for a project, i.e. the resources from ICT, non-clinical and the clinical departments, not having sufficient capacity or backfill to participate fully
R03	ICT capacity	There is a risk that the full programme cannot be implemented due to insufficient capacity within ICT to deliver it
R04	Adoption	There is a risk that projects will not realise their benefits due to poorly managed or resourced business change leading to limited adoption and exploitation within the business
R05	User inability	There is a risk that the benefits will not be realised due to users (patients and non-patients) not being willing or able to access ICT services e.g. lack of device or connectivity, lack of training or lack of digital literacy
R06	National timeline	There is a risk that benefits will be delayed due to the national project timeline slowing down the UHB's implementation plans
R07	Strategic currency	There is a risk that the strategy and implementation plan becomes misaligned to the needs of the UHB over time due to the lack of ongoing management, revision and re-alignment to emerging needs
R08	Health board priorities	There is a risk that the programme is not delivered due to competing healthcare priorities consuming focus and resources

2.6.2 Key constraints

In addition to identifying the risks to the programme's success, the primary constraining factors were discussed. The following table is a non-exhaustive list of the key constraints identified

Ref	Title	Description
C01	Budget	The amount of change that can be delivered is constrained by the capital and revenue budgets and funding sources
C02	Resources	The amount of change that can be delivered is constrained by the capacity of the ICT delivery teams

2.6.3 Key dependencies

Finally, and importantly given the organisational landscape and pre-planned projects, the dependencies were assessed and the following table is a non-exhaustive list of the key dependencies identified

Ref	Title	Description
D01	NWIS	The delivery of the programme is dependent on the national

		resources being sufficiently available to deliver the national projects
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3 THE ECONOMIC CASE

The Economic Case provides an overview of the options appraised and evaluation criteria used to select a “preferred option”

This section sets out the options that have been evaluated, together with the method and results of the economic appraisal of short-listed options in order to demonstrate which one provides the best outcomes for the financial investment.

3.1 Evaluation Criteria

The Cwm Taf UHB Strategic Outline Programme is designed to realise the Digital Health Vision in support of the health board’s business objectives as defined in the IMTP⁸.

There are a number of options for delivering the programme which are described in section 3.2. To provide the basis for selecting the preferred option, evaluation criteria have been defined below.

Table 2: Evaluation Criteria

Criteria	Description
Improved patient experience	The programme must be geared to providing better outcomes and an overall experience for patients so they can received the same level of health care across Wales
Time released back to clinical care	The programme must drive improvements to clinical care to ensure that clinicians spend less time looking for things, such as consumables and equipment in order to focus on using that time for treating patients
Value for money (VFM)	The programme must support Cwm Taf UHB’s aim to reduce its overall costs, provide better alignment to the long-term strategic goals and be affordable to implement.
Benefits align to Strategic themes	The Benefits must align to the 8 themes outlined in the Digital Health Strategy to ensure their context is relevant to the strategy
Governance structure is defined and in place	To ensure the Governance structure is in place to support the development and deployment of the Strategic Outline Programme and the processes supporting it
Elimination of duplication	Adopting the ‘Once for Wales’ approach to eliminate unnecessary duplication and promote standardisation of work across all Health Boards in Wales

⁸ Cwm Taf University Health Board three year Integrated Medium Term Plan 2016/2017 – 2018/2019

3.2 Main Options

To obtain further information of the individual projects listed within the main options of the Economic Case refer to the Appendix

Option 1 – Do Nothing	
Description	This option maintains the status quo. Maintain Business As Usual (BAU) with no operational impacts to Cwm Taf UHB
Cost	Cost neutral option, but will not be able to support the recommendations, projects and initiatives associated with the Digital Health Strategy
Benefits	<ul style="list-style-type: none"> • No degree of change by maintain the status quo • Greater transparency of budgets and expenditure as existing cost base will be maintained • No changes to current working practices so individuals can continue with their current roles • Additional investment limited
Risks	<ul style="list-style-type: none"> • Cwm Taf UHB becomes less competitive • Fail to capitalise on digital opportunities • Could lead to a negative reputation for failing to address current shortcomings • Non-compliance with standard provider contract • No change to existing cost base • No improvements to patient safety would be delivered, but current patient safety levels will be maintained • Cwm Taf UHB would be seen as out of step with the national digital strategy and the rest of the Local Health Boards in Wales, thereby failing to enhance its reputation

Option 2 – Do the minimum to deliver the projects Cwm Taf UHB has already committed to															
Description	<p>Cwm Taf UHB has agreed funding and is committed to delivering the following projects:</p> <table border="0"> <tr> <td>1.06</td> <td>Welsh Community Care Information Solution (WCCIS)</td> </tr> <tr> <td>1.08</td> <td>Medical Records Digitisation</td> </tr> <tr> <td>1.11</td> <td>WCP all modules</td> </tr> <tr> <td>1.25</td> <td>Paediatric Mobile application (Chai)</td> </tr> <tr> <td>5.02</td> <td>Microsoft licensing upgrades</td> </tr> <tr> <td>5.04</td> <td>Rollout of Skype for Business</td> </tr> <tr> <td>5.05</td> <td>Rollout of MFDs and Managed Print Services</td> </tr> </table>	1.06	Welsh Community Care Information Solution (WCCIS)	1.08	Medical Records Digitisation	1.11	WCP all modules	1.25	Paediatric Mobile application (Chai)	5.02	Microsoft licensing upgrades	5.04	Rollout of Skype for Business	5.05	Rollout of MFDs and Managed Print Services
1.06	Welsh Community Care Information Solution (WCCIS)														
1.08	Medical Records Digitisation														
1.11	WCP all modules														
1.25	Paediatric Mobile application (Chai)														
5.02	Microsoft licensing upgrades														
5.04	Rollout of Skype for Business														
5.05	Rollout of MFDs and Managed Print Services														

	8.04 Switchboard rationalisation 8.06 Cyber security
Cost	Total Cost £11,755,035 The total cost has been calculated by accumulating the individual costs of each project within scope of option 2
Benefits	For the projects that have been quantified within option 2 the total benefits amount to £5,020,478 <ul style="list-style-type: none"> • Projects already known and identified • Relevant to CTUHB • Benefits are already outlined at a high-level at both local and national levels • Business Cases have already been developed
Risks	<ul style="list-style-type: none"> • Does not cover all key capabilities and high-value projects identified within the Digital Health Strategy, such as Analytics, Enterprise Scheduling and Governance • Prioritisation is not confirmed • Fail to capitalise on digital opportunities • Could lead to a negative reputation for failing to address current shortcomings • No improvements to patient safety would be delivered, but current patient safety levels will be maintained • No cost savings or benefits would be realised • Cwm Taf UHB would be seen as out of step with the national digital strategy and the rest of the Local Health Boards in Wales, thereby failing to enhance its reputation

Option 3 – Invest in strategic solutions to drive Cwm Taf UHB and National objectives

Description	Implement planned projects aligned to strategic themes as well as new initiatives to improve capabilities across Cwm Taf UHB. This includes de-prioritising initiatives that do not align to the 8 themes outlines in the Digital Health Strategy document to ensure efforts are maximised on achieving ‘quick wins’ and delivering benefits within a shorter time frame
Cost	Total Cost £24,634,523
Benefits	Total Benefits £23,985,674 Benefits have been quantified for a subset of projects as defined in the financial model, whereas the full portfolio of projects has been costed, which results in a potentially misleading net value figure. Table 6 within the Financial Case demonstrates that Cwm Taf UHB will actually gain a net value benefit of £4,949,890 over the next 5 years from pursuing

the quantified projects within this option.

- Supports CTUHB's reputation as one of the leading Local Health Boards across Wales
- Overall rollout costs would be lower as the implementation roadmap is prioritised to those initiatives which are of highest value and will maximise the opportunities to realise 'quick wins'
- The rate of change is manageable and there is little risk of disruption
- Due to longer roll out timelines of five years, the Trust can learn about best practices and challenges from demonstrator sites

Risks

- Trust funding may be diverted to other operational priorities
- Potential changes to programme team over extended period
- Full Return on Investment (ROI) may not be realised

Option 4 – Maintain the status quo and fully participate in the rollout of National Solutions across NHS Wales

Description

Maintain existing infrastructure, systems and devices and only use the National Solutions endorsed by NWIS / Welsh Government

The National Projects that constitute option 4 are listed below. Further details of each individual project is provided within the 'Project Catalogue' document:

Ref	Project Name
1.01	Choose Pharmacy
1.02	CYPRIS
1.03	Welsh Patient Referral Service (WPRS)
1.04	Welsh Results and Reports Service (WRRS)
1.05	Welsh Laboratory Information Management System (LIMS)
1.06	Welsh Community Care Information Solution (WCCIS)
1.07	Welsh Hospital Electronic Prescribing and Medicines Administration (WHEPMA)
1.19	Welsh Point of Care
2.01	National Data Warehouse, Business Intelligence & Predictive Information Services
3.01	Patient Portal
3.02	Welsh Care Record Service (WCRS)
3.03	WIAS

Cost

Indicative Cost £6,581,069

However, there are no costs associated for the following National Projects due to still being assessed in the Outline Business Case stage:

- Choose Pharmacy
- WPRS

	<ul style="list-style-type: none"> • WRRS • WHEPMA • WIAS <p>Furthermore, in determining this indicative cost it has been assumed that the NWIS SLA costs will remain at the same level for future years. This is due to the constraint that the new set of NWIS SLA costs will be published after April 2017 i.e. after this SOP document has been completed.</p>
Benefits	<p>For the projects that have been quantified within option 4 the total benefits amount to £6,788,760</p> <ul style="list-style-type: none"> • Implement solutions and initiatives endorsed by NWIS and the Welsh Assembly Government to help with standardising healthcare across Wales • Endorses 'Once for Wales' approach to provide seamless care to patients across Wales • Implementation and integration of tried and tested solutions • More transparent contractual and financial framework when compared to private companies
Risks	<ul style="list-style-type: none"> • Overhead involved in delivery of change • National solutions may not be perceived better than the Local solutions currently used – 'Once for Wales vs Once for Cwm Taf' • Lack of direct engagement or forward planning between NWIS and Local Health Board

3.3 Options Appraisal

Table 3 below shows the rankings that result from scoring each of the options against each of the criteria; these are scored based on the following:

Key:	
Description	Score
Does not meet required criteria	0
Partially meets required criteria	1
Fully meets required criteria	3

Table 3: Economic Case options scoring against evaluation criteria

SOP Economic Case Options	Option 1 – Do Nothing	Option 2 – Do the minimum to deliver the projects Cwm Taf UHB has already committed to	Option 3 – Invest in strategic solutions to drive Cwm Taf UHB and National objectives	Option 4 – Maintain the status quo and fully participate in the rollout of National Solutions across NHS Wales
Improved patient experience	0	3	3	1
Time released back to clinical care	0	1	3	1
Value for money (VFM)	1	1	3	3
Benefits align to Strategic themes	0	1	3	1
Governance structure is defined and in place	0	0	3	0
Elimination of duplication	0	1	3	3
Total	1	7	18	9
Overall Ranking	4th	3rd	1st	2nd

3.4 Preferred Option

Utilising the options appraisal scoring system, a high-level summary of each of option together with the decision of the preferred option is detailed in Table 4

Table 4: Preferred Option

Option	Description	Recommendation
Option 1 – Do Nothing	This option maintains the status quo and maintaining BAU with no operational impacts to Cwm Taf UHB	Within the appraisal this is the lowest scoring option and is not recommended as Cwm

		Taf UHB would be seen as out of step with the national digital strategy and the rest of the Local Health Boards in Wales, thereby failing to enhance its reputation
Option 2 – Do the minimum to deliver the projects Cwm Taf UHB has already committed to	<p>This option will support the delivery and implementation of the minimum set of projects committed to where funding is already agreed and are prioritised over the next three years</p> <p>However, this option does not cover all key capabilities and high-value projects identified within the Digital Health Strategy such as Analytics, Enterprise Scheduling and Governance</p>	Completing the minimum set of projects already committed to will deliver a degree value to Cwm Taf UHB, but misses some of the wider opportunities to enhance care and efficiencies and address some of the issues with adoption
Option 3 – Invest in strategic solutions to drive Cwm Taf UHB and National objectives RECOMMENDED OPTION	Implement planned projects aligned to strategic themes as well as new initiatives to improve capabilities across Cwm Taf UHB. This includes de-prioritising initiatives that do not align to the 8 themes outlines in the Digital Health Strategy in order to maximise achieving ‘quick wins’ for Cwm Taf UHB	This is the recommended approach which will transform Cwm Taf UHB into a digital healthcare leader and achieve their healthcare and operational goals
Option 4 – Maintain the status quo and fully participate in the rollout of National Solutions across NHS Wales	Maintain existing infrastructure, systems and devices and adopt a follower status, adopting national solutions and recommendations as they arise	This will be a financially attractive option, but will deliver reduced and delayed value to Cwm Taf UHB

Therefore, in conclusion, option 3 to ‘Invest in strategic solutions to drive Cwm Taf UHB and National objectives’ is the preferred option

3.5 Deliverables and Timescales

For details of the scope, level of priority, key activities and output of each individual project with planned timescales for implementation, please refer to the accompanying documents “**CTUHB Digital Health Strategy – Project Catalogue**” and “**CTUHB Digital Health Strategy – Roadmap**”.

In recognition of the high rate of change in the healthcare and technology landscapes, the roadmap has been planned with most activity in the first two years. The lower level of effort

in years three to five is not an indication that less effort is needed, but a reflection of the fact that the projects to be delivered in 2019 onwards cannot be effectively planned at this point in time. The UHB's IMTP will be updated for 2019/2020 – 2021/2022, national priorities will potentially change and the technology landscape will have advanced; meaning any planning for this period is likely to need significant revision and therefore any effort expended in doing so at this point would be wasted.

Through the Digital Health Steering group, the strategy and the roadmap should be continually reviewed and revised to reflect progress to date and any emerging requirements and changes in priorities. This should take place every 6 months, however the programme should be continually reviewed and any changes approved by the steering group.

4 THE COMMERCIAL CASE

The Commercial Case outlines the commercial arrangements, including the proposed sourcing option with rationale for its selection

4.1 Commercial Strategy

The Commercial Strategy for the Strategic Outline Programme involves each of the individual projects within a Strategic Theme being progressed and assessed through a Business Justification Case (BJC) and this element of the process will agree the competitive tendering process required for capital. It is important that the BJCs specify in detail the full requirements for each project and the procurement process demonstrating value for money and the affordability

4.1.1 NHS Wales Procurement tendering process

The NHS Wales Shared Services Partnership Procurement Services negotiate contracts across a wide spectrum of expenditure all this is managed by tenders right the way through to full Official Journal of the European Union (OJEU) tendering. NHS Wales has Standard Financial Instructions in place and the different levels to undertake quotes and tenders are detailed in the below table:

< £5k	Informal Prices
£ 5k - £25k	Quotations
£25k – £113,057	Tenders
£113,057k +	OJEU

Where possible quotations should be undertaken using the electronic quote and tendering system Bravo to ensure the end-to-end process is quicker and easier to manage. Bravo does this by enabling the loading of specifications that are directly linked to a Procurement Framework and list of suppliers that have already met the specified criteria.

Where the value of exceeds £25k NHS Wales Procurement Services places a notice on the opportunities listing via Sell2Wales, which will automatically alert Cwm Taf UHB as a registered supplier. This will then allow Cwm Taf UHB to contact the NHS Wales Procurement Services to understand the scope and detail of the tender being planning.

Single Quote Tenders (SQTs) for projects or initiatives where there is only one supplier for that nature of work does not need to go for tendering providing the contract is signed off by the Cwm Taf UHB Executives. However, even with SQTs, gaining clinical support and endorsement of the intended solution/system is vital to ensure adoption is successful and a positive outcome is achieved for all key stakeholders.

For any projects or contracts valued in excess of £113,057 they are subject to current EU procurement regulations which require that Procurement advertise the forthcoming contacts in the Official Journal of the European Union (OJEU). The main advantage of this route is that there may be other capable and innovative suppliers in the market place who Cwm Taf

UHB would have previously been unaware of that could deliver. Conversely, the biggest disadvantage is that this is the most administratively complex, expensive and longest route for procurement as typically it can take several months to complete the end-to-end process.

4.2 Procurement Strategy

National projects do not require a BJC, however for each project within one of the Strategic Themes of this programme a detailed BJC will be required with the scale of case being determined by the level of investment required.

The local Procurement Services team at Cwm Taf UHB falls under the national NHS Wales Shared Services Partnership Procurement Services function. One of the most common setbacks within the current Procurement structure at Cwm Taf UHB is that requestors want to pursue an initiative, but feel that the current Procurement frameworks hold them back from attaining a quick sign-off or conversely whereby Procurement are only being notified of urgent requests at an advanced stage. Therefore, timely and early engagement with the local Procurement Services team is vital to ensuring that projects and initiatives being proposed are directed to the right people at the right time as well as enabling better planning and allocation of Procurement resources.

Currently, there are 3 main routes into the local Procurement Services team at Cwm Taf UHB:

1. IMTP Planning Framework – this group identifies what projects and new initiatives will need Procurement involvement
2. Non-Pay Strategy Group – this goes reports into the Director of Finance and Procurement
3. Executive Capital Management Group (ECMG) – to review and approve funding for projects and new initiatives

However, going forward the Digital Health Steering Group will work in conjunction with NHS Wales Procurement Services to develop and execute appropriate procurement approaches and use the following evaluation criteria:

- ▶ Value for money
- ▶ Fitness for purpose to ensure the relevant clinical groups approve the proposed solution or system
- ▶ Timeframe
- ▶ Adherence to Standing Orders and Standing Financial Instructions
- ▶ Compliance with EU/UK Procurement Regulations as appropriate

The programme will take advice from the NHS Wales Procurement Services during the Procurement process in order to ensure that best practice is applied and value for money for the Procurement process is delivered.

4.2.1 Sourcing Options

The list below details the most widely used Procurement Frameworks across Cwm Taf and all other Local Health Boards in Wales for pursuing IT projects or new initiatives:

- ▶ Crown Commercial Services (CCS)
- ▶ All Wales
- ▶ Lead Provider Framework (LPF)
- ▶ National Procurement Service (NPS)

Dependent upon the value, the preferred sourcing option is to avoid the OJEU route by utilise a range of the Procurement Frameworks. The main benefits of these Frameworks are that they incorporate pre-agreed rates and terms with pre-qualified suppliers and enable greater ease of contracting. Therefore, the timescale for supplier selection via this Framework route is expected take a maximum of between 3 to 4 months. This is considerably faster and cheaper than a full OJEU procurement exercise as a certain degree of due diligence has already been undertaken and it is not necessary to advertise the required services beforehand.

5 THE FINANCIAL CASE

The Financial Case outlines the assessment of affordability by including the indicative cost summary, funding requirement and financial assumptions of the preferred way forward.

As part of the Financial Case of this SOP a financial model has been developed – for full details of the financial analysis please refer to the financial model in the Appendix.

Within the financial model there are several tabs that are interconnected to provide the full picture of the Financial Case. Below, a brief description is outlined for each tab:

Tab	Description
Assumptions	List of assumptions used for the SOP financial model
Summary Table	Top level summary of total costs and benefits for each Strategic Theme and Net Value over the 5 year period
Financial Summary	Summary of each individual project detailing the recurrent, non-recurrent costs and total cost and where applicable the benefits mapped to each Strategic Theme (this includes a selection of high-value projects)
Phase 1 Strategy Projects	Details the confirmed or pre-planned ICT projects as detailed in the ICT Corporate Development Business Plan 2017-2020. A breakdown is provided of each individual project outlining the recurrent, non-recurrent and total costs per year and source of information for each entry
Phase 2 Strategy Projects	Details the projects to meet new requirements that have arisen from the Digital Health Strategy development process. A breakdown is provided of each individual project outlining the recurrent, non-recurrent and total costs per year. For a more detailed breakdown of individual costs refer to the mentioned tab in the last column i.e. this will be one of the following: 'Information Management – New' 'Applications – New' 'Infrastructure – New'
Benefits	Benefits have been calculated from utilising a range of research sources from Cwm Taf official reports, annual accounts and performance dashboards to other NHS case studies and various industry research findings
Formula Assumptions	This is used for calculation of interface development costs for projects listed on the 'Phase 1 Strategy Projects' and 'Phase 2 Strategy Projects' tabs
Calculator	The calculator is applied to the benefits tabs to derive the benefits realised over a 3 year or 5 year period

5.1 Indicative Funding Requirements

Table 5 outlines the indicative capital requirements in order to pursue the preferred way forward of option 3 to **'Invest in strategic solutions to drive Cwm Taf UHB and National objectives'**. Table 6 on the next page provides a high-level summary of the financial analysis.

The sub total cost to deliver the preferred way forward is **£24,634,523**. Assuming that Training costs are recognised at 5% of overall costs the total cost of the preferred way forward rises to **£25,866,249**.

The capital required to deliver the preferred way forward over the next 5 years, which will support the delivery of the programme is **£15,109,987** inclusive of non-recoverable VAT.

The revenue required to deliver the preferred way forward over the next 5 years, which will support the delivery of the programme is **£5,772,936**.

The total capital and revenue costs have been divided by 5 to generate a yearly breakdown, whereby capital costs are **£3,021,997** and revenue costs are **£1,154,587**.

Table 5: Indicative Funding Requirements

£(000's)	2017-18	2018-19	2019-20	2020/21	2021/22	Total
Capital Costs	£3,022	£3,022	£3,022	£3,022	£3,022	£15,110
Revenue Costs	£1,155	£1,155	£1,155	£1,155	£1,155	£5,775
Depreciation		£604	£1,209	£1,813	£2,418	

The annual indicative depreciation charges have been based on an average life of 5 years and commencement in the first full year based on the assumption that most of the schemes for 17/18 will not go live until the end of year. It is assumed that the depreciation consequences will be funded by Welsh Government from strategic funding.

5.2 Financial benefits

The accompanying financial model in the appendix details all costs and benefit modelling. The following table summarises the costs and benefits over 5 years for each of the strategic solutions. For full details, please refer to the financial model.

Strategic Solution	Total Costs		Benefits		Net Value Impact (5yrs)	Strategic Theme linked to benefits from the following initiatives:	
Digital Health Board	£	13,427,211	£	13,560,560	£	133,350	1. Online Patient Booking Services; 2. Digital bed-boards & occupancy management; 6. Discharge automation; 9. Virtual consulting; 10. Enterprise Scheduling; 12. e-Prescribing; 14. Integrated Care Management (WCCIS); 15. Intelligent Referral Management; 16. Digital Dictation, 18. Self-Care Management and 19. Patient Identification
Insights-driven healthcare	£	1,233,000	£	1,334,950	£	101,950	7. Demand forecasting & capacity planning and 20. Real Time Analytics
Single patient view	£	589,375	£	2,001,472	£	1,412,097	5. Digital Care Record and 17. Clinical Communication
Intelligently integrated healthcare	£	367,500	£	147,180	-£	220,320	4. ESB integration of hospital key systems
Digital workforce	£	3,235,635	£	5,883,272	£	2,647,637	3. Employee mobile computing; 8. Single sign-on and 13. Self-Service Kiosks and Apps for Employees
Digital enablers	£	5,731,802	£	1,017,015	-£	4,714,787	11. Data Centre Consolidation
Adoption and exploitation	£	30,000		N/A		N/A	Indicative Project costs have been provided, however no benefits have been quantified for this Strategic Theme
Managing innovation	£	20,000		N/A		N/A	Indicative Project costs have been provided, however no benefits have been quantified for this Strategic Theme
SUB TOTAL	£	24,634,523	£	23,985,674	-£	648,849	
Training		£1,231,726					Assumption that Training is 5% of overall costs
TOTAL		£25,866,249		£23,985,674		-£1,880,575	Overall, there is a negative net value, but it is important to remember that only where possible have the key benefits have been quantified. The projects which have already had their detailed Business Cases completed have not been quantified further to be included here. In addition, the overall net value does not take into account the qualitative benefits which will add value for CTUHB and these are detailed within the Digital Health Strategy and SOP
Projects where there are quantified benefits		£13,455,890		£18,405,780		£4,949,890	When we analyse the projects where both cost and benefit are quantified, it demonstrates that Cwm Taf UHB will gain a net value benefit of £4,949,890 from pursuing the quantified projects. The remaining projects will deliver their own business and financial benefits, further justifying the total investment.

5.3 Impact on the Operating Cost Statement

In support of the Digital Health Strategy, the Health Board should establish a Strategic Change Programme Fund based on the roadmap to fund the key elements of the programme delivery over the next 5 years.

The Strategic Change Programme Fund will serve the purpose to cover the revenue costs of delivering the projects on the roadmap.

5.4 Affordability

Affordability will be made as the Digital Health Steering Group progress the programme onto the next stage to develop the individual Business Cases for the projects within the preferred way forward. The scale of Business Case will be determined by the level of investment required.

Whilst the Digital Health Steering Group is responsible for make the case, the CTUHB Executive Board will represent the final sign-off before funding is approved and allocated to the programme.

6 THE MANAGEMENT CASE

The Management Case demonstrates that the “preferred option” is capable of being delivered successfully, in accordance with recognised best practice

6.1 Programme and Project Management Arrangements

The programme will be overseen by the Digital Health Steering Group that will meet on a monthly basis. The membership of the Digital Health Steering Group will include a cross-sample of clinical and non-clinical departments, Assistant Director for ICT, the executive lead(s), procurement and finance representatives.

The Digital Health Steering Group will own the strategy and roadmap and drive its implementation and adherence. Where applicable an agile framework will be utilised on the programme to support the delivery of the roadmap to enable “quick wins”, provide greater agility and help to foster a culture of greater responsiveness.

The Steering group will assess and approve changes to the strategy and roadmap, adopting an iterative, agile approach to ensure that changes are made to reflect progress, emerging requirements and changing priorities.

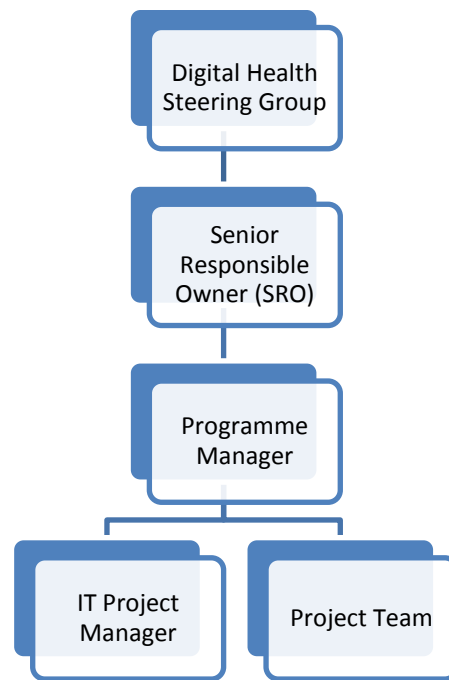
As part of the move to an agile framework it is recommended that Cwm Taf UHB adopt the Digital Service Standard that outlines a set of 18 criteria to help government create and run good digital services, of which, criteria 4 details how to use agile methods – see links below for further information:

<https://www.gov.uk/service-manual/service-standard>

<https://www.gov.uk/service-manual/service-standard/use-agile-methods>

6.2 Programme and Project Reporting Structure

The programme will be managed under the Project Reporting Structure outlined below, whereby the key members are the Digital Health Steering Group, Senior Responsible Owner (SRO), Programme Manager, Project Manager and Project Team. These members work in cohesion and collectively are responsible for overall management and delivery of the end-to-end projects within the programme. The Digital Health Steering Group reports directly into the CTUHB Executive Board.



It is recommended that the SRO be allocated to a senior stakeholder within Cwm Taf UHB, and should be someone independent of the Digital Health Steering Group to avoid any potential conflict of interest.

6.3 Programme Milestones

Subject to this SOP being approved, it is anticipated that implementation of the programme will be phased over the next three years from 2017/18 to 2019/20.

6.4 Programme Assurance

The programme will be overseen by the Digital Health Steering Group that will meet on a monthly basis. Project Boards and teams will be established and will include Health Board and where relevant, third party representation with experience in delivering ICT initiatives, as appropriate. These Project Boards will report regularly to the Digital Health Steering Group to maintain Programme Assurance.

6.5 Benefits Realisation and Tracking

To ensure the expected benefits of the programme are successfully realised a Benefits Realisation Strategy will be applied, the objectives of which are to:

- Identify the benefits and responsibility for their delivery.
- Establish baseline measurement where possible.
- Quantify benefits where possible.
- Periodically assess likely realisation and any actions required.
- Manage the change programmes.
- Record further expected benefits identified during the project.
- Measure outcomes.

Benefits will be agreed as being realised when the expected measurement of change has been appreciated. This will be identified and determined during Benefits Reviews. Furthermore, the tracking of benefits realisation and reviews will continue beyond the lifecycle of the programme as it is expected that benefits will continue to accrue.

The table below outlines the roles and responsibilities to maintain and ensure that benefits realisation and tracking is successful for the health board

Role	Responsibilities
Sponsor/SRO	<ul style="list-style-type: none"> • Own the programme vision statement • Own the Benefits Management Strategy and responsible for ensuring it is adequately maintained • Input and approval, together with Sponsoring Group, of benefits defined in the Benefit Profiles • Lead benefits reviews
Sponsoring Group	<ul style="list-style-type: none"> • Show visible commitment to realisation of benefits • Identify and appoint suitable candidates for the Business Change Manager roles • Ensure the strategic alignment of benefits realisation • Ensure commitment of stakeholders in their business areas to benefits realisation
Programme Manager	<ul style="list-style-type: none"> • Developing the Benefits Management Strategy on behalf of the Sponsor/SRO • Preparation of the Benefits Realisation Plan and ensuring it is aligned with the Programme Plan and Business Case. • Initiating benefit reviews
Programme Office	<ul style="list-style-type: none"> • Acts as the information hub for tracking and progress-chasing benefits, scheduling reviews and communicating results • Provides an objective challenge of benefits, risk, dependencies, etc.
Business Change Manager	<ul style="list-style-type: none"> • Identifying and quantifying the benefits in close consultation with stakeholders • Maintaining the Benefit Profiles • Own particular benefits as profiled • Prepare for transition to new ways of working • Ensure that ongoing business performance is not adversely impacted by changes • Continuously seek additional benefits • Realising benefits: <ul style="list-style-type: none"> ○ Agreeing profile ○ Impact analysis ○ Quantifying ○ Risk assessment
Benefit Owners	<ul style="list-style-type: none"> • Own Benefit Profiles • Establish benefit baselines and measures • Take necessary actions to ensure realisation of owned benefits

For information, there are a number of standard benefit realisation methodologies and guides available on the NHS Digital website that may be of interest and applicable to the programme.

6.6 Risk Management

Each individual project will require the regular maintenance of a risk and issue register. The Project Manager is responsible for escalating all severe risks and/or issues to the Digital Health Steering Group on a monthly basis via their Highlight Report. However, where a decision is required urgently, a Highlight Report will be raised and a decision is sought from the Steering Group within a shorter timescale.

6.7 Post-Project Evaluation

Post-Implementation Reviews (PIR) will be scheduled after a project has completed, which is usually within 1 month of completion. During the PIR, the evaluation criteria detailed in Table 2 within section 3.1 of the Economic Case will be utilised to measure, assess and evaluate projects post-completion. The PIR also serves the purpose to:

- Ascertain the degree of success from the project, and in particular the extent to which it met its objectives, delivered planned levels of benefit, and addressed the specific requirements as originally defined.
- Examine the efficacy of all elements of the solution to see if further improvements can be made to optimise the benefit delivered.
- Capture lessons learnt from the project to ensure common pitfalls or setbacks can be avoided as well as share experiences that can be used by project resources and by Cwm Taf UHB to improve future project work and solutions.

7 APPENDICES

The Appendices is comprised of the following documents relevant to the SOP

Appendices	Reference Guide	Brief Description
Appendix 1	CTUHB Digital Health Strategy – Project Catalogue	Provides an overview of each project for the scope, level of priority, key activities and output, planned timescales and details of high-level qualitative benefits
Appendix 2	CTUHB Digital Health Strategy – Roadmap	The roadmap illustrates the implementation timescales for each project within the programme and is split by national, collaborative and local
Appendix 3	CTUHB SOP Financial Model	The financial model provides details of the Programme Capital/Investment Costs as well as the Projects Summary and Benefits/Value

8 ACRONYMS

BAU	Business As Usual
BJC	Business Justification Case
CCS	Crown Commercial Services
CTUHB	Cwm Taf University Health Board
ECMG	Executive Capital Management Group
ICT	Information and Communication Technology
ITOM	IT Target Operating Model
LPF	Lead Provider Framework
NPS	National Procurement Service
NWIS	NHS Wales Informatics Service
OJEU	Official Journal of the European Union
PIR	Post-Implementation Review
SOP	Strategic Outline Programme
SQT	Single Quotation Tender
UHB	University Health Board