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**WALES**

Bwrdd Iechyd Prifysgol  
Bae Abertawe  
Swansea Bay University  
Health Board



<b>Meeting Date</b>	<b>12 March 2020</b>			<b>Agenda Item</b>	<b>2.5 ii</b>
<b>Report Title</b>	<b>Audit Committee</b>				
<b>Report Author</b>	Gareth Westlake, Digital Services Business Manager				
<b>Report Sponsor</b>	Matt John, Associate Director of Digital Services				
<b>Presented by</b>	Matt John, Associate Director of Digital Services				
<b>Freedom of Information</b>	Open				
<b>Purpose of the Report</b>	The purpose of this report is to provide the Audit Committee with an overview of the risks associated with Digital Services and the actions being taken to mitigate against them.				
<b>Key Issues</b>	<ul style="list-style-type: none"> <li>• There are 5 HBRR risks associated with Digital Services that are overseen by the Audit Committee:           <ul style="list-style-type: none"> <li>➢ Information Led Decisions;</li> <li>➢ Sustained Clinical Services – Digital Transformation;</li> <li>➢ Storage of Paper Records;</li> <li>➢ Cyber Security;</li> <li>➢ National Data Centre Outages.</li> </ul> </li> </ul>				
<b>Specific Action Required (please choose one only)</b>	<b>Information</b>	<b>Discussion</b>	<b>Assurance</b>	<b>Approval</b>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Recommendations</b>	The Audit Committee are asked to:				
	<ul style="list-style-type: none"> <li>• <b>NOTE</b> the risks associated with Digital Services and the mitigating actions being taken</li> </ul>				

## **RISKS ASSOCIATED WITH DIGITAL SERVICES ASSIGNED TO THE AUDIT COMMITTEE**

### **1. INTRODUCTION**

The purpose of this report is to provide the Audit Committee with an overview of the risks associated with Digital Services and the actions being taken to mitigate against them.

### **2. BACKGROUND**

The vision for digital services in Swansea Bay University Health Board (SB) is to deliver digitally enabled world class health, care and well-being for our population.

The Health Board envisages that health, care and wellbeing activities carried out by everyone in our Health Board will be enabled using digital technology wherever optimal including ensuring care, quality and service plans and operations are data driven and maximise opportunities to improve efficiency and quality through use of digital technology.

The Welsh Government's (WG) digital health and social care strategy 'Informed Health and Social Care' (2015) recognises the important role of technology in facilitating patient empowerment, health and wellbeing. The strategy sets out a vision for the future use of technology in the delivery of effective and safe health and care in Wales in line with the principles of prudent healthcare and co-production. The Healthier Wales document published in June 2018 builds on this and sets out the importance of technology to support more integrated working between health and social care, focusing on the patient at the centre of the integrated team.

Nationally from 2020 will see the beginning of a number of positive changes to the Digital landscape and governance models in NHS Wales. The principles of open architecture, open platform and open standards will start to be embedded, supported by increased investment of £50m for digital priorities. There will be a new Chief Digital Officer that will sit in the NHS Executive and have a "whole system" remit. There will also be a reformation of NWIS as it becomes a Strategic Health Authority. This will give it equal status as a peer within the NHS and greater accountability, both to WG and to its own Board of Members. These external factors should all result in positive changes to advance the digital agenda in NHS Wales.

### **3. GOVERNANCE AND RISK**

Considerable work has been ongoing to strengthen the internal governance model of Digital in SBUHB and to ensure that it is aligned organisational structures and priorities including the CSP.

The full Digital Service framework is available in Appendix 1, an overview is outlined below and demonstrates reporting into the highest levels of governance in SB. The framework provides assurance and escalation to the Senior Leadership Team and the Transformation Portfolio Board. The core features include:

- The Digital Services Board (DSB) – governance and assurance of programme planning, prioritisation, implementation and benefits delivery
- Information Governance Board (IGB) – governance and assurance of information and information risk
- Digital Service Management Group (SMG) – governance and assurance of operational informatics systems and services
- Business Analytics and Intelligence group – will be established to provide direction, governance and assurance of the strategy.

All Groups / Boards report via the Senior Leadership or the Transformational Portfolio Board then onto the Executive Team or Audit Committee. Underpinning these groups are Service Delivery Unit (SDU) Digital Groups have been established to ensure SDU clinical and business requirements are fully understood and prioritised appropriately. Over the last 12 months Digital Services have established a robust inclusive approach to informatics prioritisation that informs our local plans and feeds into IBG and the national prioritisation process. In addition there are a number of Programme Boards and Service Management Board that play a vital role in the implementation of projects and the smooth running of operational services. The Clinical Reference Group chaired by the Chief Clinical Digital Officer aims to ensures good clinical engagement and direction.

The direction and work of the Informatics Service Nationally is overseen by the National Informatics Management Board (NIMB), which is chaired by the Director General for Health and Social Services / NHS Wales Chief Executive. All Health Boards, NHS Trusts and Welsh Government are represented at NIMB. In addition the SB Digital Services Senior Team is represented at all national groups and boards and meet on a quarterly basis with NWIS Directors.

The Digital Services team have a monthly Risk Management Group (RMG) that reviews and manages existing and new risks that have requested escalation onto the Digital Services risk register. Risks that need to be escalated to the Health Board Risk Register are also actioned.

There are a number of risks that have been identified within the Digital Services risk register that are being managed to ensure ongoing delivery of the Digital vision of the Health Board. Five of these risks have been escalated to the Health Board Risk register and overseen by the Audit Committee.

**Digital transformation (HBR27 Risk Score 12)** – digital transformation requires significant financial investment and there is a risk if that investment is not forthcoming. Investment is not only required to support the launch of digital transformation initiatives and projects but also on a recurrent basis to support the growth in digital services and reflect the organisation's dependency on these solutions to maintain service provision. Whilst in the longer term digital solutions will

release efficiencies to make them self-sufficient, it is widely documented that in many cases these will not present themselves until 5-10 years after the investment has been made. SB have already made long term capital commitments to support the implementation of digital solutions and are starting to commit to the ongoing revenue required to support them. Where implementations are so large they require external funding the revenue requirements for digital solutions are included within the business cases that are submitted to WG.

### ***Key Mitigations and Actions***

- Capital priority group for the HB considers digital risks for replacement technology which is fed into the annual discretionary capital plan. IBG process allows for investment requests in projects to be submitted to the HB for consideration and provides scrutiny to ensure Digital resources required are considered for all projects
- Informatics prioritisation process has been introduced to ensure requests for digital solutions are considered in terms of alignment to the strategy objective, technical solutions and financial implications
- HB has invested £900k recurrently in the project staffing resources to facilitate the delivery of the Informatics Strategic Outline Plan
- Working closely with WG, NWIS and other Health Boards to ensure appropriate prioritisation of national digital funds
- Work with finance and the Health Board leadership team to identify additional revenue streams. 200K revenue increase agreed to reflect growth in IT service provision

**Paper Record Storage (HBR36 Risk Score 12)** – the reliance on paper to record information and manage workflows within HB has created a huge volume of patient notes and other records that need to be managed and stored. The size of these records continues to grow and storage areas have reached capacity. The sheer volume of paper records and their increasing complexity also means it is difficult to ensure the quality of the record. Whilst the move towards more and more electronic ways of working will decelerate the growth in the size and volume of paper records, the legacy paper record will still have to be managed. In November the HB implemented an RFID patient record tracking system. This has meant that the way in which the health records libraries are organised has been transformed releasing storage capacity and increased the efficiency of record retrieval. This gain, however, has been partly offset by the halt of record destruction as enforced by the Blood Enquiry. The development of new electronic processes such as Nursing Documentation and the review of outpatients will reduce the volume of paper required to be filed on the record. The HB need to ensure that business processes change to stop filing items on the paper record that are already available digitally.

### ***Key Mitigations and Actions***

- Alternative storage arrangements are being identified and utilised where appropriate. This was increased as a result of the blood.
- RFID project has been implemented and has increased capacity in the short term for the storage of the acute Health Record.
- Roll out plan for WCP is in place and being enacted
- All records must be documented and risk assessed in the Information Asset Register (IAR)

- Develop a case for improved storage solution both for paper and digital records.

**Operational and strategic decisions are not data informed (HBR37 Risk Score 16)** - the move towards capture of information and processes electronically means that data can be accessed and reported on much more quickly. Information therefore needs to be presented to the user in a timely and accessible way to allow them to use it to inform the decisions they make. The Health Board has already developed a number of dashboards there are available at both an operational and strategic level. Adoption of the dashboards has not been as high as would have been expected however, and the Health Board is currently finalising a Business Intelligence Strategy and implementation plan that will set out how these issues will be addressed going forward.

#### ***Key Mitigations and Actions***

- The Information Services department have continued to invest in the provision of dashboards and we have purchased new servers for our QlikView product and are currently migrating and upgrading all existing QlikView based dashboards which will result in improved speed and capabilities.
- Business Intelligent Information Manager has been liaising with the delivery units and the Advisory Board in order to create a Business Intelligence Strategy. The aim is to approve the strategy in Q1 20/21 followed by the implementation phase.
- Information Services department working with service leads in Planning and Finance to develop meaningful indicators also utilising dashboards to present information in a user friendly way
- New technologies being reviewed for advanced analytics and integration into a new Health Board analytics platform, which includes taking full advantage of the investment in Office 365 – Power BI tool.

**Cyber Security (HBR60 Risk Score 20)** - The level of cyber security incidents is at an unprecedented level and health is a known target. The health board has increased digital services (users, devices and systems) and therefore the impact of a cyber security attack is much higher than in previous years. The health board has recently appointed a Cyber Security Manager as a new roll and is in the process of recruiting an additional 2 cyber security staff. In 2020 the team will be implementing National Cyber Security tools that will highlight vulnerabilities and provide warnings when potential attacks are occurring.

#### ***Key Mitigations and Actions***

- The NHS in Wales is protected by a firewall by NHS Wales Informatics Service (NWIS).
- Swansea Bay UHB has advanced firewall protection to protect the network from potential cyber-attacks.
- The national security tools are in place to highlight vulnerabilities and provide warnings when potential attacks are occurring.
- A patching regime has been in place around 18 months which ensures desktops, laptops and servers are protected against any known security vulnerabilities. Anti-virus is in place to protect against known viruses with intelligent scanning on potential viruses not yet discovered.

- The Health Board has a newly appointed Cyber Security Manager. There are also 2 x band 6 WTE roles being appointed to utilising WG funds. These roles are required to act on information provided by the national security tools.
- A Cyber Security training module has been developed and available in the Electronic Staff Record training to ensure staff are fully aware of the risk of cyber security and are vigilant in recognising malicious activity

**National data centre outages (HBR70 Risk Score 20)** – a number of the Health Board's systems are national and are therefore hosted within data centres that are managed by NWIS. There have been a number of multi system outages over the last 2 years with a number of factors causing outages or resulting in extended outages. The latest outage in June 2019 in the Blaenavon Data Centre was caused by poor maintenance of cooling systems and insufficient monitoring. National data centre outages will disrupt health board services. SB are well represented on the national Infrastructure Management Board (IMB) and Service Management Board (SMB) which are responsible for holding NWIS to account for delivery of services and ensuring actions are identified to address any failings/risks.

### ***Key Mitigations and Actions***

- The national Infrastructure Management Board (IMB) and Service Management Board (NSMB) are the boards that oversee Major Incidents, identify risks for national services and make recommendations to improve the availability of national services. These boards meet monthly to hold NWIS to account for delivery of services.
- Infrastructure major incident reviews are undertaken with selected board members and recommendations agreed in the board.
- The impact of outages are also mitigated against by the Business Continuity plans that are in place within the Service Delivery Units to allow operational services to continue during a data center service outage.
- The final report on the "Air con" outage has been received and recommendations put in place to increase maintenance levels and monitoring. NWIS have produced an action plan which is agreed in the IMB and progress monitored. Any deviation from the action plan will be escalated to the NSMB.
- WLIMS 2016 upgrade is required to address some of the technical issues experienced on the existing version. This is planned for September 2020. A re- procurement of a new Pathology Laboratory Information Management system is in progress.

## **4. RECOMMENDATION**

The Audit Committee are asked to:

- **NOTE** the risks associated with Digital Services and the mitigating actions being taken

<b>Governance and Assurance</b>	
<b>Link to Enabling Objectives</b> <i>(please choose)</i>	<b>Supporting better health and wellbeing by actively promoting and empowering people to live well in resilient communities</b>
	Partnerships for Improving Health and Wellbeing <input type="checkbox"/>
	Co-Production and Health Literacy <input type="checkbox"/>
	Digitally Enabled Health and Wellbeing <input type="checkbox"/>
	<b>Deliver better care through excellent health and care services achieving the outcomes that matter most to people</b>
	Best Value Outcomes and High Quality Care <input checked="" type="checkbox"/>
	Partnerships for Care <input checked="" type="checkbox"/>
	Excellent Staff <input checked="" type="checkbox"/>
	Digitally Enabled Care <input checked="" type="checkbox"/>
	Outstanding Research, Innovation, Education and Learning <input checked="" type="checkbox"/>
<b>Health and Care Standards</b>	
<i>(please choose)</i>	Staying Healthy <input checked="" type="checkbox"/>
	Safe Care <input checked="" type="checkbox"/>
	Effective Care <input checked="" type="checkbox"/>
	Dignified Care <input checked="" type="checkbox"/>
	Timely Care <input checked="" type="checkbox"/>
	Individual Care <input checked="" type="checkbox"/>
	Staff and Resources <input checked="" type="checkbox"/>
<b>Quality, Safety and Patient Experience</b>	
Ensuring the organisation has robust risk management arrangements in place that ensure organisational risks are captured, assessed and mitigating actions are taken, is a key requisite to ensuring the quality, safety & experience of patients receiving care and staff working in the UHB.	
<b>Financial Implications</b>	
The risks outlined within this report have resource implications which are being addressed by the Associate Director of Digital Services working with finance leads and taken into consideration as part of the Board's IMTP processes.	
<b>Legal Implications (including equality and diversity assessment)</b>	
It is essential that the Board has robust arrangements in place to assess, capture and mitigate risks faced by the organisation, as failure to do so could have legal implications for the UHB.	
<b>Staffing Implications</b>	
Staff will be briefed on the changes required by the digital programme and the mitigation of digital associated risks through workshops and training programmes	
<b>Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015)</b>	
No implications for the Committee to be notified of.	
<b>Report History</b>	<ul style="list-style-type: none"> <li>A full Digital update was received by Health Board Members in January</li> </ul>
<b>Appendices</b>	<ul style="list-style-type: none"> <li>Appendix 2: Digital Service Governance Framework</li> </ul>

## Appendix 2 – Digital Service Governance Framework

