Deployment of WPAS into MH&LD Final Internal Audit Report

November 2021

Hywel Dda University Health Board

NWSSP Audit and Assurance







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Executive Summary

Purpose

Review arrangements in place for the implementation of WPAS into MH&LD.

Overview

Whilst we recognise the urgency to implement WPAS, our review identified inadequate project management arrangements.

Key matters arising concerned:

- Lack of an internal business case.
- Limited project planning, management and governance.
- Inadequate resource made available to the project, both in number and skill-level.
- Lessons learned not recorded throughout project lifecycle and post-implementation review not yet undertaken.

Notwithstanding an inefficient implementation, the project achieved its purpose as WPAS is operational and stable within MH&LD, therefore, we have concluded an overall assurance rating of **Limited**.

Report Classification

Limited assurance

More significant matters require management attention.

Moderate impact on residual risk exposure until resolved.

Trend

N/A

First review

Assurance summary¹

Assurance objectives	Assurance
1 Resourced plan for rollout	No
2 Assessment of readiness	No
3 Testing	No
4 User training	Limited
5 Issues / Lessons Learned	Limited
6 Benefits realisation	No

Matte	ers Arising	Assurance Objective	Control Design or Operation	Recommendation Priority
1	Project Business Case	1,6	Design	High
2	Project Planning and Initiation	1,2,3,4	Design	High
3	Governance	1,5	Operation	High
4	Resources	1	Design	High
5	Post-implementation Review	5	Operation	High

¹ The objectives and associated assurance ratings are not necessarily given equal weighting when formulating the overall audit opinion.

1. Introduction

- 1.1 Our review of the local deployment of the Welsh Patient Administration System (WPAS) into the Mental Health and Learning Disabilities (MH&LD) directorate was completed in line with the Hywel Dda University Health Board Internal Audit Plan for 2021/22. The relevant lead Executive Director for this review is the Director of Finance.
- 1.2 A PAS holds patient details such as ID, outpatient appointments, letters, and notes. Having a single integrated PAS for acute and mental health means the same administrative patient information can be accessed in different hospital departments, so patients won't have to repeat their details several times throughout their medical journey. WPAS also allows the system to be supported in terms of maintenance and regular upgrades, both of which were unavailable for MH PAS given its age and fragility.
- 1.3 Since 2003, the Health Board had been utilising the Mental Health Patient Administration System (MH PAS), which was initially developed and maintained inhouse within the Pembrokeshire and Derwen NHS Trust's IT department. The MH PAS was responsible for the production and allocation of MH case numbers, and subsequently the system was linked to the electronic clinical record system (Care Partner) which stored patient clinical notes. The Directorate has since moved to holding paperless medical records and is reliant on Care Partner to document all patient activity/risk/care planning.
- 1.4 By 2018, MH PAS had reached 'end-of-life' and became increasingly fragile as a result. The declining sustainability of the system was identified as a risk and recorded on the MH&LD risk register under reference 150. Furthermore, it had been identified that. The probability of system failure was deemed high with the potential for wider disruption such as:
 - inability to register new patients or run follow-up medical outpatient clinics;
 - failure to review and monitor sectioned patients under the Mental Health Act, potentially leading to longer or unlawful detentions;
 - inability to meet national reporting requirements.
- 1.5 A soft go-live was scheduled for 31st October 2019 and inpatient activity was double run on both MH PAS and WPAS to ensure data quality. A final go-live date was scheduled for 31st December 2019, however, a series of delays resulted in data such as outpatients and appointments, not going live until 11th August 2020.
- 1.6 Our review of the implementation of WPAS into MH&LD ('the project') was conducted following a transparent request by the Health Board to include in the Annual Audit Plan 2021/22, and prior to rolling out to the remaining MH&LD services in the anticipated third phase of the project, as it was identified as a potential area of weakness due to the following;

- the project was undertaken during a period of transition and flux in Executive Leadership;
- following an assessment of time and cost estimates provided by NHS Wales Informatics Service (NWIS) (now Digital Health Care Wales) to undertake the project, an agreement was made between the Digital and MH&LD departments to roll-out WPAS in-house, as the probability of MH PAS failure in the interim was deemed too high;
- the onset of COVID-19 necessitated time, attention and resources be diverted to the Health Board's response to the pandemic. The urgency to implement the project, however, remained the same; and
- due to the points above, it was recognised that project management was not aligned to usual standards and processes, which have been evident in similar Digital audits we have undertaken previously, and that have received assurance ratings of Reasonable or Substantial.
- 1.7 Furthermore, we acknowledge that as a result of this implementation, the Health Board will become the first in Wales to have a fully integrated PAS system that covers both acute and mental health services.
- 1.8 The potential risks considered in the review were as follows:
 - The project does not meet its deadlines;
 - The Health Board does not gain the anticipated benefits from the deployment.

2. Detailed Audit Findings

Objective 1: An appropriately resourced plan for rollout of WPAS is in place and monitored.

Project Plan

- 2.1 Whilst a Full Business Case and Outline Business Case were not required in order to implement an instance of a national system, we noted that an internal business case was not developed. In its absence we were unable to confirm the background of the project including ownership, roles and responsibilities, and whether analysis relating to the anticipated benefits, expected risks and costs, including resourcing had been undertaken prior to project initiation. See **Matter Arising 1** in Appendix A.
- 2.2 The project was subject to a Project Initiation Document (PID) and high-level plan. Whilst PRINCE2 methodologies were stated as the method of approach, no detail was recorded of how they were tailored to the project.
- 2.3 Our review of the PID recorded the absence of the following key information:
 - identified roles and responsibilities for the project, including governance and project ownership. We noted that there was a lack of clarity over where the

responsibility for the project laid, with the assumption being made within both MH&LD and Digital that the other party was accountable;

- approaches to:
 - i. change control;
 - ii. quality management;
 - iii. benefits management;
 - iv. user training; and
- analysis of project risks.

See Matter Arising 2 in Appendix A.

- 2.4 Whilst reference was made in the PID to a formal risk log being maintained throughout the project lifecycle, including countermeasures and likelihood of risk occurrence, we were informed that a project risk assessment was not undertaken prior to implementation. A 'Lessons, Issues, Actions and Risks' (LIAR) log was maintained, however, we identified the following from our review of the latest available log dated 5th October 2020:
 - risks were not formally assessed and scored;
 - benefits were not recorded (blank tab);
 - lessons learned were not recorded (blank tab); and
 - issues, actions and risks had been removed from previous iterations of the LIAR logs.

See Matter Arising 2 in Appendix A.

- 2.5 A high-level plan was developed, which included details on preliminary infrastructure activities including setup, national submissions and project closure. We noted that the plan was dated June 2019 and included start and finish dates aligned to the original go-live date of 31st December 2019. Neither the plan nor the PID were updated to reflect the true timeframe of implementation and progress was not recorded. See **Matter Arising 2** in Appendix A.
- 2.6 An initial process mapping exercise was undertaken and documented by MH&LD and Informatics in September 2019, to ascertain what data would need to be captured in WPAS from MH PAS and to identify any process gaps. It emerged during implementation that the exercise had not been as effective as anticipated, as MH&LD had not accurately identified all of its processes, resulting in a system failure once WPAS went live. See **Matter Arising 4** in Appendix A.
- 2.7 Whilst a communication plan was in place, it remained in draft format and dated 9th July 2019. We identified that it had not been made bespoke for the project save for named approvers and distribution. Through meetings with key contacts, we were advised that the level of communication between the project group and MH&LD was insufficient for the complexity of the project, which resulted in a series of misunderstandings, particularly around the go-live date of 11th August 2020 and the

required data migration from MH PAS to WPAS. See **Matter Arising 2** in Appendix A.

- 2.8 A Project Group was established and subject to formal Terms of Reference (TOR). We did not identify any Project Group meetings and whilst we noted that the Group met on 9th July 2019, no subsequent meetings took place. Therefore, we are unable to determine the following information:
 - approval to initiate the project and subsequent approvals of the PID and project plan;
 - reasons for, and actions taken, to address the delays to project go-live; and
 - project scrutiny and monitoring.

See Matter Arising 3 in Appendix A.

Resources

- 2.9 We identified resourcing of the project as a key constraint to implementing WPAS efficiently and effectively. As noted in paragraph 2.7, MH&LD staff assigned to the project did not have the necessary knowledge of all services within the directorate, resulting in inaccurate system mapping at the outset, which required regular amendments and process revisions by the Informatics team. See **Matter Arising 4** in Appendix A.
- 2.10 Linked to our above findings on communication and planning, there was a lack of clarity over project resourcing. For both Informatics and MH&LD, project activities amounted to significant workloads for key staff as they were undertaken in addition to their regular duties. One such example was prior to go-live, approximately 12,000 lines of patient caseload data was required to be manually migrated from MH PAS to WPAS. Whilst we recognise the significant amount of work undertaken by the Informatics team to comprehensively map out MH PAS data fields against corresponding fields for input into WPAS, and to produce an accompanying guide. The lack of appropriately skilled staff available within MH&LD to undertake the task resulted in data quality issues. For example, a patient record may have consisted of multiple lines of data but only one line was entered, resulting in incomplete records requiring retrospective correction. We have been informed that this work has since been completed. See **Matter Arising 4** in Appendix A.

Rollout

2.11 Shortly after go-live, failures occurred with the data feed between WPAS and Care Partner resulting in MH&LD having to enact its business continuity plan, which comprised of keeping paper records for new patients presenting to the service. Following a three-week outage, the feed was restored and approximately 9,000 historical records were amassed which required manual entry into WPAS. Further issues ensued with demographic data errors on Care Partner, including scrambled or incorrect patient names and addresses. Minutes from the MH&LD Informatics Group dated 27th October 2020 confirmed that the historical data entry had been

completed and the Care Partner feed had been fixed. See **Matter Arising 4** in Appendix A.

Conclusion:

2.12Whilst we recognise the urgency of implementing WPAS into MH&LD and the significant work undertaken by both Informatics and MH&LD teams to operationalise the system, the lack of project ownership, governance, resource, planning and communication resulted in a multitude of failings. We conclude that the implementation deviated from standard digital processes and consequently, we have concluded No assurance for this objective.

Objective 2: An assessment of readiness for rollout is undertaken.

2.13 We were informed by the Head of Informatics that a formal assessment of readiness within MH&LD was not undertaken but an agreement was reached between Informatics and MH&LD that the project needed to progress due to the fragility of MH PAS.

Conclusion:

2.14Linked to **Matters Arising 2 & 3** in Appendix A, the lack of assessment of readiness contributed to an inefficient system implementation. Consequently, we have concluded **No** assurance for this objective.

Objective 3: Appropriate testing is performed prior to rollout.

2.15There was no documented testing plan in place and whilst we were informed basic system activities were tested such as recording a new patient, testing of MH&LD-specific processes was not undertaken prior to rollout and no testing was undertaken to ensure the data migration had successfully completed. These contributed to the data feed failures noted in paragraph 2.12.

Conclusion:

2.16Linked to **Matter Arising 2** in Appendix A, the lack of a testing plan and appropriate testing activities prior to rollout contributed to an inefficient system implementation. Consequently, we have concluded **No** assurance for this objective.

Objective 4: Appropriate training on the use of the system is provided to users prior to rollout.

- 2.17There was no documented training plan in place and whilst the PID made reference to WPAS user training being undertaken by the Application Support Team, no further detail was provided. See **Matter Arising 2** in Appendix A.
- 2.18We were advised by MH&LD that initial user training was inadequate as MH&LD-specific processes in WPAS was in early development and had not yet been built, therefore, staff had difficulty in identifying with and understanding generic training material.

2.19 Whilst comprehensive user guides were produced by the Informatics team, a lack of appropriate user training contributed to data quality issues following rollout as staff did not fully understand the new system and new MH&LD speciality codes.

Conclusion:

2.20Linked to Matter Arising 2 in Appendix A, the lack of a training plan and appropriate user training prior to rollout contributed to an inefficient system implementation. Consequently, we have concluded Limited assurance for this objective.

Objective 5: Issues identified as part of the deployment are logged and resolved, with lessons learned collated to feed into future deployments / programmes.

- 2.21 Whilst a LIAR log was maintained during implementation, our review identified that lessons have not been recorded throughout the project lifecycle. See **Matter Arising 5** in Appendix A.
- 2.22An informal project assessment has been undertaken and from interviews with key contacts, we noted that issues have been identified and the underlying reasons for occurrence have been understood in general. See **Matter Arising 5** in Appendix A.

Conclusion:

2.23 Noting the above, we have concluded **Limited** assurance for this objective.

Objective 6: Benefits of the system are clearly defined and a mechanism in place for ensuring realisation of these.

- 2.24Benefits of the system were not defined and documented prior to rollout and we noted no mechanism was in place to monitor or measure them. See **Matters Arising 1, 2 & 3** in Appendix A.
- 2.25One of the identified risks of the sustainability of MH PAS was the inability to meet national reporting requirements. Our review highlighted the work undertaken by the Informatics team post-implementation, to develop data quality reports that are regularly shared with MH&LD to inform of issues relating to accuracy, completeness, and consistency. Whilst work is currently continuing to streamline WPAS reporting in line with national standards, we noted that this will be an anticipated benefit.

Conclusion:

2.26 Noting the above, we have concluded **No** assurance for this objective.

Appendix A: Management Action Plan

Matter Arising 1: Project Business Case (Design)	Im	ıpact
Whilst a Full Business Case and Outline Business Case were not required to impleme of a national system, we noted that an internal business case was not developed. In i were unable to confirm the background of the project including ownership, roles and read whether analysis relating to the anticipated benefits, expected risks and cresourcing had been undertaken prior to project initiation.	its absence we responsibilities, costs including	tential risk of: The project does not meet its deadlines; The Health Board does not gain the anticipated benefits from the deployment.
Recommendations	Pri	ority
 1.1 In the absence of an initial internal business case, Management should ensure tha is undertaken prior to embarking on the third phase of the project: project ownership, roles and responsibilities are agreed and documented; and risks relating to rollout are identified, analysed and documented. 	at the following	High
Agreed Management Action Tai	rget Date Re	sponsible Officer
 1.1 Agree, and suitable governance arrangements will be established for the remainder of the project as per previous projects, following PRINCE or Agile methodologies. For example: Project Group / Project Team Project Initial Documentation, Project Plan 	Le	rector of Mental Health and earning Disabilities / Digital rector

Matter Arising 2: Project Planning and Initiation (Design)	Impact
Our review highlighted that key project management concepts were not applied, and that limited planning was undertaken prior to the rollout of WPAS into MH&LD. We have identified the following as key issues that contributed to the delays and problems incurred during the implementation: • approaches to change control, quality management, benefits management and user training were not defined within the PID; • PID and high-level plan were not updated following delays to rollout of second phase; • project risks not appropriately analysed or sufficiently monitored; • no testing plan and limited testing undertaken prior to rollout; • incomplete gap analysis; • assessment of readiness was not undertaken; and • inadequate communication plan.	 Potential risk of: The project does not meet its deadlines; The Health Board does not gain the anticipated benefits from the deployment.
Recommendations	Priority
 2.1 Whilst recognising that the project is embarking on its third phase, Management should ensure that the Project Initiation Document is updated to reflect the arrangements in place, including: project ownership and agreed project roles and responsibilities; communication management approach; and detailed training plan. 	High
2.2 A risk analysis exercise is undertaken prior to the third phase and any identified risks are assigned ownership.	High
2.3 The project plan should accurately reflect activities to be undertaken in the third phase, including timescales for delivery.	High
2.4 A detailed testing plan for the third phase should be developed, upon which an assessment of readiness can be determined prior to go-live.	High

Agre	eed Management Action	Target Date	Responsible Officer
2.1	Agreed, and the completion of the PID will form part of the achievement of recommendation 1	December 2021	Director of Mental Health and Learning Disabilities / Digital Director
2.2	Agreed, and the completion of the risk analysis will form part of the achievement of recommendation 1 and will be a key element of the project initiation	December 2021	Director of Mental Health and Learning Disabilities / Digital Director
2.3	Agreed, and the completion of the project plan will form part of the achievement of recommendation 1	December 2021	Director of Mental Health and Learning Disabilities / Digital Director
2.4	Agreed, and the completion of the testing plan will be an iterative development and will be refined after each milestone. However, an outline testing plan will be designed	April 2022	Director of Mental Health and Learning Disabilities / Digital Director

Matter Arising 3: Project Governance (Operation)	Impact	
A Project Group was established and subject to formal Terms of Reference (TOR). Wany Project Group meetings and whilst we noted that the Group met on 9th July 2019 meetings took place. Therefore, we are unable to determine the following information approval to initiate the project and subsequent approvals of the PID and project reasons for, and actions taken, to address the delays to project go-live; and project scrutiny and monitoring.	 Potential risk of: The project does not meet its deadlines; The Health Board does not gain the anticipated benefits from the deployment. 	
Recommendations		Priority
3.1 Management should ensure that prior to the third phase, a project / implement established in line with agreed roles and responsibilities, and that Executive sign-of documented prior to initiation.	High	
3.2 Management should ensure that staff assigned to the third phase of the project with decisions, actions and issues monitored and documented.	Medium	
Agreed Management Action	Target Date	Responsible Officer
3.1 Noted and agreed. A new project group will be established with suitable representation from the Mental Health and Learning Disabilities Directorate and Digital Services	December 2021	Project Team Proposed Project Managers Gareth Beynon Karen Amner

3.2	Review January 2022	Director of Mental Health and Learning Disabilities / Digital Director

Matte	er Arising 4: Project Resource (Design)	Impact	
MH&LD staff assigned to the project did not have the necessary knowledge of all services within the directorate, resulting in inaccurate system mapping at the outset between MH PAS and WPAS, which required regular amendments and process revisions by the Informatics team. Insufficient resources made available from both Informatics and MH&LD resulted in heavy workloads for project members and several data quality issues.			 Potential risk of: The project does not meet its deadlines; The Health Board does not gain the anticipated benefits from the deployment.
Reco	mmendations	Priority	
4.1 Management should ensure that appropriately skilled and dedicated resources are assigned to the third phase of the project to ensure accurate system mapping and effective implementation.			High
Agre	ed Management Action	Target Date	Responsible Officer
4.1	The Mental Health and Learning Disabilities Team have assigned funding to recruit a Band 5 – Application Specialist, and a Band 6 – Business Analyst to assist with the third phase of the project	May 2022	Gareth Beynon / Karen Amner

Matter Arising 5: Post-Implementation Review (Design)	Impact	
Whilst a LIAR log was maintained during implementation, our review identified that not been recorded throughout the project lifecycle An informal project assessment has been undertaken and from interviews with ke noted that issues have been identified and the underlying reasons for occurrence understood in general.	 Potential risk of: The project does not meet its deadlines; The Health Board does not gain the anticipated benefits from the deployment. 	
Recommendations	Priority	
5.1 Management should ensure that a post-implementation review is undertaken evaluating project objectives and implementation effectiveness of the first two photosons learned to be implemented during the third phase.	High	
Agreed Management Action	Target Date	Responsible Officer

Appendix B: Assurance opinion and action plan risk rating

Audit Assurance Ratings

We define the following levels of assurance that governance, risk management and internal control within the area under review are suitable designed and applied effectively:

Substantial assurance	Few matters require attention and are compliance or advisory in nature. Low impact on residual risk exposure.
Reasonable assurance	Some matters require management attention in control design or compliance. Low to moderate impact on residual risk exposure until resolved.
Limited assurance	More significant matters require management attention. Moderate impact on residual risk exposure until resolved.
No assurance	Action is required to address the whole control framework in this area. High impact on residual risk exposure until resolved.
Assurance not applicable	Given to reviews and support provided to management which form part of the internal audit plan, to which the assurance definitions are not appropriate. These reviews are still relevant to the evidence base upon which the overall opinion is formed.

Prioritisation of Recommendations

We categorise our recommendations according to their level of priority as follows:

Priority level	Explanation	Management action
High	Poor system design OR widespread non-compliance. Significant risk to achievement of a system objective OR evidence present of material loss, error or misstatement.	Immediate*
Medium	Minor weakness in system design OR limited non-compliance. Some risk to achievement of a system objective.	Within one month*
Low	Potential to enhance system design to improve efficiency or effectiveness of controls. Generally issues of good practice for management consideration.	Within three months*

^{*} Unless a more appropriate timescale is identified/agreed at the assignment.

