GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales	**Name of Meeting** Knowledge, Research and Information Committee **Date of Meeting** 15 September 2026 **Agenda item:** 3.4

Digital Opportunities in Screening

Executive lead:	Iain Bell, Director of Research, Data and Digital
Author:	Iain Bell, Director of Research, Data and Digital

Approval/Scrutiny route:	Cleared with Claire Birchall, Executive Lead for Screening Business Executive Team – 2 September 2026

Purpose

This paper was requested for at the Quality, Safety and Improvement Committee in June to present on the opportunities for digital in screening services.

The paper sets out the digital work underway, and the transformation plans for screening.

Recommendation:

APPROVE	CONSIDER	RECOMMEND	ADOPT	ASSURANCE
☐	☐	☐	☐	☒

The Committee is asked to:

- **Note** the picture for digital opportunities in screening and agree that we should prioritise the replacement of NBSS this year.
- Take **assurance** that work is underway to strengthen the digital underpinnings of screening alongside work to establish a transformation programme for screening, as the full benefits of digital will not be enabled without a transformation of business processes and ways of working.

Link to Public Health Wales Strategic Plan Public Health Wales has an agreed strategic plan, which has identified seven strategic priorities and well-being objectives. This report contributes to the following:	
Strategic Priority/Well-being Objective	4 - Delivering Excellent Public Health Services

Summary impact analysis	
Equality and Health Impact Assessment	No EHIA has been carried out at this stage. These will be carried out by the transformation programme, once established
Risk and Assurance	Risks will be managed by the transformation and assurance provided through DDDA monitoring and management of the portfolio and reporting to Change Board
Health and Social Care (Quality and Engagement) (Wales) Act	
Financial implications	There are three aspects to this 1) existing items on the digital and data portfolio are funded 2) Welsh Government agreement to utilise a share of the £522k identified in the baseline review for replacement of NBSS this year 3) wider we will need to build the invest to save business case for a transformation of screening
People implications	As transformation progresses there will be impacts on roles and responsibilities which will be managed in line with organisational and NHS policies and procedures. At this stage, however, there are no impacts.

1. Purpose / situation

This paper was requested to come to September Knowledge, Research and Information Committee (KRIC) by the Quality, Safety and Improvement Committee in June. It sets out the progress made over the past few years; the current digital programme for screening and the establishment of a wider screening transformation programme.

2. Description/Assessment

Screening division deliver 7 national screening programmes, manage the Antenatal Screening Wales managed clinical network, and are working towards the implementation of targeted lung cancer screening in Wales. There are also several other conditions that there are either recommendations for or consideration of by the UK national Screening Committee for implementation including additional conditions for the bloodspot programme and the recent recommendation around targeted prostate cancer screening.

Digital transformation is an essential underpinning to wider transformation and the two must move together to ensure that we maximise the benefits of investment in digital capability. This will sometimes require a wholesale redesign of business processes. Sometimes the existing processes have been constrained by current functionality

<u>Digital improvements over past few years</u>

We have improved the digital underpinning of our screening services over the past 3 years. The major deliverables were:

- **Breast cancer screening cohort tool.** In June 2024, we successfully migrated from a legacy tool to a new supported tool within PHW. This mitigated our cyber and clinical risks. It also decoupled us from the NHS in England enabling development of our systems in line with our long-term strategy and digital and data strategy.
- **Newborn Screening re-platform.** In 2025, we successfully re-platformed our Newborn Screening system from an unsupported Oracle platform to a modern system. This has significantly lowered the cyber threat for this system. It also enables our system to be developed for new screening types such as tyrosinemia.
- **Screening digital discovery.** We completed a discovery into our screening digital discovery in 2023 that identified the significant commonality across all screening services that would enable a move to a component-based architecture in the future.

Current screening digital programme

It is well understood from the discovery work the sheer challenge of our digital estate in screening. However, we also understand that the full benefits of digital transformation will only be enabled with changes and transformation of the model of delivery for screening itself. Our work programme is; therefore, a balance of activity that will help improve performance in screening or be core foundations for future transformation.

The current digital programme is as follows:

- **Lung Cancer screening programme.** We are undertaking the necessary digital development to enable go live of the new lung screening programme in early 2028. This involves procurement and integration of a new Pathway Administration System and integration across the full suite of systems necessary for successful delivery of the end-to-end pathway for lung cancer screening.
- **Mobile connectivity pilot.** While the lung screening programme requires connectivity to be solved, we recognise this is already an issue for breast cancer screening. The initial work has identified the need for external support to further pilot a range of options including satellite internet. This pilot has just begun and will complete in Mar-27. Although we are exploring options for this to deliver quicker
- **Upgrade to Daybook functionality.** The Day Book system is used within breast cancer screening to provide a snapshot of NBSS that provides enough function to allow screening to happen on mobile units without requiring connection to the online version. This system had become outdated and requires modernisation to ensure successful delivery of other elements of our breast cancer screening development work. This will be delivered by March 2027.
- **Text messaging.** We know that the ability to send reminders through a text messaging system has the potential to increase uptake and reduce the number of people missing appointments. DESW have the functionality to send text messages currently, and uptake in DESW is above the standard of 80% and participants often reference the text message as to why they attended. We are therefore starting this from AAA screening and then will develop outwards from there. The AAA team are now initiating a project team to implement.
- **Cervical self-sampling.** This is a pilot this year that is designed as phase one towards implementation of a UK National Screening Committee recommendation. The pilot will be an opportunistic offer, working with 20 GP surgeries. Phase 2 is planned for 2027/8 and is the rollout of the offer of HPV self-sampling to participants who are overdue for screening, on an age stratified basis, to reduce inequities in access to cervical screening. By 2029, we plan to offer self-sampling to all overdue participants on a business-as-usual basis. A critical dependency for Phase 2 is the development of an opt-in

portal allowing participants offered a self-sampling test to request their test kit, and to track the kit from request to result.

Breast Cancer screening

Over the past month, it has emerged that there will be a need to quickly establish a new Pathway Administration System for breast cancer screening within Wales. While we had long known of the need, the expectation was that we would be able to maintain the existing system for another 20 months or so while our strategic transformation was set out.

This is no longer the case, and we will be looking urgently at how to expedite the move to a new Pathway Administration System. This will include all available options through procurement and build out from existing systems in Wales. The overriding principles will be to maintain service continuity, protect patient safety, and ensure future sustainability, while also ensuring that any opportunities to enhance processes and functions are taken.

While this is unwelcome in some respects it may also be able to accelerate transformation and improvement. A new PAS will support the move from a regional variation model of delivery to a single national model; ability to send text reminders and more features that will be of benefit to delivery of the service.

The programme is being developed rapidly and there will have been progress since submission of the paper to date of Committee, and I will update the Committee verbally on the latest position.

We will also be seeking Welsh Government agreement to utilise elements of the £522,000 identified through the baseline review for this work.

Use of Artificial Intelligence in Screening systems

There are 3 key areas where we are looking at use of Artificial Intelligence for screening:

- Lung screening – use of AI-based algorithms in computer-aided detection / volumetry software
- Ambient Voice Technology pilot – AI-enabled ambient voice transcription and summarisation of MDT discussions to support creation of structured clinical documentation. This will operate in parallel with existing processes during the pilot phase, to enable evaluation of the pilot
- Edith trial for breast cancer screening – participation by PHW in the proposed trial, across thirty pilot sites in the UK. AI will assist radiologists by analysing mammograms to detect early signs of breast tissue abnormalities. Women already scheduled for routine NHS breast screenings will be invited to participate.

In addition, the UKNSC are currently reviewing the evidence in relation to use of AI for grading in diabetic eye screening. It is anticipated that there will be a recommendation related to AI use in grading with a planned in-service evaluation in NHS England initiated this financial year. AI in grading is currently not part of the pathway within DESW but exploring this was part of the DESW digital transformation plan.

Transformation of screening services

Delivering digital improvements as an integral part of a wider transformation programme for screening will allow the maximum benefit to be realised. There is recognition of the need for large scale modernisation and transformation and to look at service delivery models. Our aim is to move to a component-based architecture where we deliver user-centred, clinically safe services.

The component-based architecture in effect means that we will have the same functionality delivered using the same tool for all screening and PHW services – for example an appointment booking system.

We will look to build out from national infrastructure wherever possible. For example, the NHS Wales App will be building a booking system for vaccination appointments this year. We will look to build out from functionality such as this, wherever possible.

Alongside this, we will need to look holistically at the model for screening and consider several elements of delivery. At its most simple level flexible appointment booking would require changes to how we invite participants for screening now. So, if we need to change, we need to look at the models for delivery of screening. This will include demand and capacity modelling and reconsideration of the delivery model including looking at using mobiles versus regional hubs.

We are therefore establishing a screening transformation programme that will rapidly establish a vision for the future of screening services and look to design and build a digitally enabled system. This is currently being initiated with Iain Bell as SRO and Liam Williams leading the development of the programme.

The aim is to build a vision around the following form: **'to make sure that everyone in Wales who is eligible for screening can easily get their screening test and has a fair chance to take part. We want the service to be designed around the needs of our users, clinically safe and easy to adapt and expand to include new screening types as they are approved'**. We aim to have the screening service vision agreed by mid-September and to have scoped the transformation work as soon as possible afterwards.

This work on transformation of services is essential so that the digital opportunities can maximise the opportunities afforded from digital.

The programme is being established at present and will report to Change Board and up to Board in line with the management of all our major programmes

3. Well-being of Future Generations (Wales) Act 2015

This supports the wellbeing of future generations act by:

Long term: A transformation of screening services will enable a more flexible service to expand to new screening types quickly and easily.

Prevention: Screening is one of the most effective population health programmes. By improving and transforming the delivery of our screening services we are improving our prevention services.

Integration: The proposed transformation will provide more integrate services both within screening and along the entire pathway with Health Boards

Collaboration: The transformation will have User Centred Design at its core to ensure that it is designed and built for the population served

Involvement: we will involve all staff and partners in the design of the transformation.

4. Recommendation

The Committee is asked to:

- **Note** the picture for digital opportunities in screening and agree that we should prioritise the replacement of NBSS this year.
- Take **assurance** that work is underway to strengthen the digital underpinnings of screening alongside work to establish a transformation programme for screening, as the full benefits of digital will not be enabled without a transformation of business processes and ways of working.