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Digital Routemap update August 2024

Key Streams of work

Included streams and accountable owners are:

- **Data, Analysis, Registers and Cloud** – Louisa Nolan
- **Digital systems development** – Dafydd James
- **Automation and AI** – Fliss Bennee and Louisa Nolan
- **Infrastructure and tools** – Dafydd James

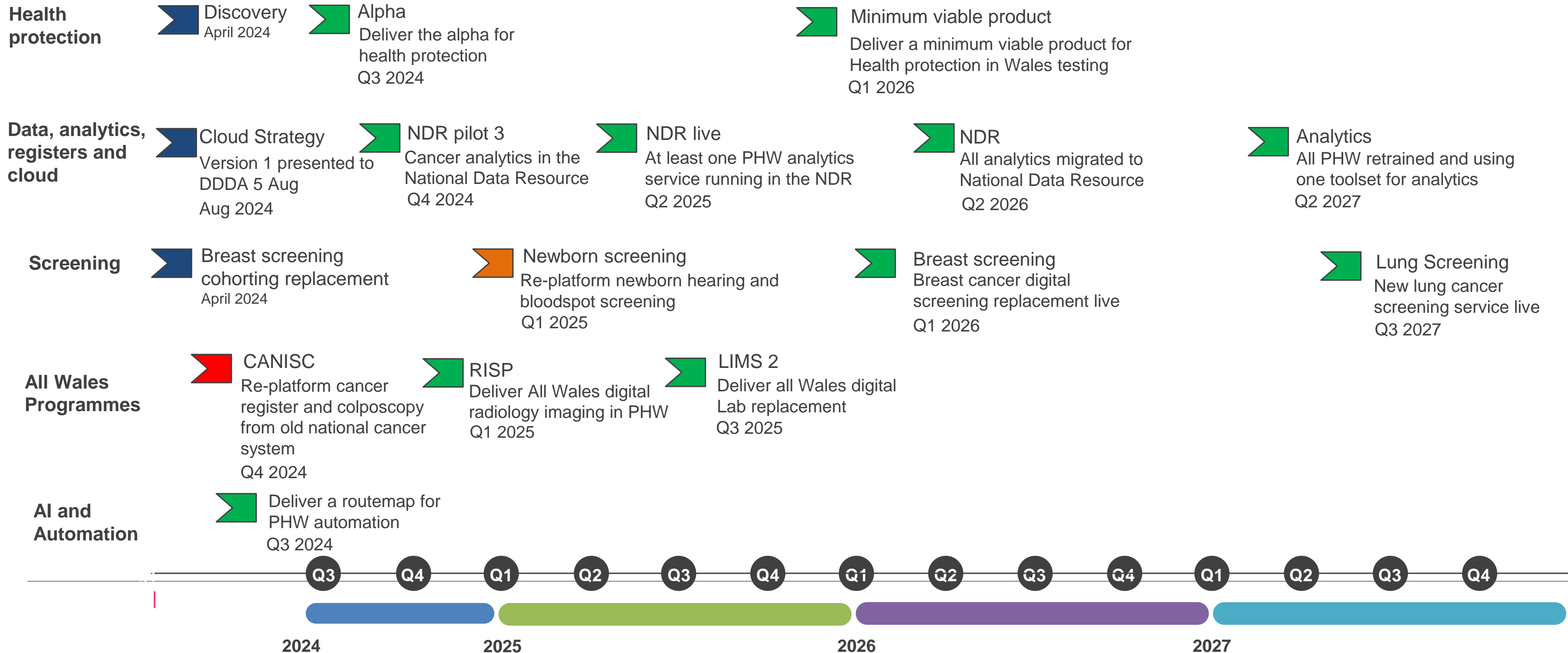
Excluded streams are:

- **Cyber Security** (covered by Audit Committee) – Dafydd James

Major Milestones



Complete Digital and Data Routemap launched
June 2024



Data, analysis, registers and cloud – what we've done

March 2024

NDR pilots – completed two pilots on the use of NDR, tooling, cloud approach, data ingest and analysis

June 2024

PHW Cloud strategy drafted and to be submitted for approval in September 2024

Data, analysis, registers and cloud - now

Through a series of workshops involving digital, data and analytics professionals as well as a range of stakeholders we have developed a strong narrative, including registers as a central part of our data and analytics responsibilities.

We are developing a programme governance to host the workstreams and formalising a Board for the programme to ensure that milestones are delivered to the appropriate standards.

We have agreed within Public Health Wales that the purpose of this component is to work together to:

- Use the right infrastructure, so that our use of data and analysis is safe, efficient and demonstrates value for money, and
- Improve our data and data quality, so that we make the best use of our data for service, monitoring, analysis and research.

We will do this by:

- Migrating data, analysis and line-of-business operations to the cloud
- Rationalising our analytical tools
- Documenting and mapping our data and data flows
- Adopting agreed digital, data and analytical standards
- Automating manual operations, for example, data flows, where possible, and
- Developing the skills we need to do these things.

Data, analysis, registers and cloud – next 3 steps

Workstream	Responsible for workstream	Milestone 1	Milestone 2	Milestone 3
Data	Helen Clayton, Sathiskumar Jothi	CANISC re-platform Jan 2025	Agree standards and deliver software for data documentation Mar 2025	Catalogue and document all PHW data sets to the agreed standards Sep 2025
Analysis	Nathan Lester	Completed cancer incidence and survival process mapping and explore self-service reporting options for cancer in NDR Dec 2024	Complete the guidance for good practice and accessibility for PHW data publications Dec 2024	Complete scenario modelling for diabetes Mar 2025
Registers	Suki Baynton	Complete a solution to flag up clusters of Child deaths Oct 2024	Deliver a redesigned interface for real time suspected suicide surveillance Feb 2025	Publish a framework for national registers Mar 2025
Cloud	Paul Bridges, Dennis Jones	Use the Cloud strategy to develop and agree a Cloud implementation plan Mar 2025	Complete migration of Child Death Review and Real Time Suspected Suicide Surveillance to NDR Mar 2025	Go live with Azure landing zone Jun 2025

Digital systems development – what we've done

April 2024

Breast Cohort Selection Completed

DESW referral Automation Completed

June 2024

Newborn Screening Re-platforming

Delayed since DHCW elected to cease their role as lead developer and delivery partner. PHW are now taking on this role and have been allocated funding which must be spent in this financial year. We have a project manager and will issue a tender shortly.

Route-map with DHCW for opportunity from DSPP and other national initiatives

Ongoing but not complete. We have initiated discussions with DHCW and there may be opportunities to co-operate.

Digital systems development - now

Our systems development workstream can be broadly split into three areas:

- Keeping the Lights On: Core business continuity and compliance.
- Maturing Delivery: Ensure we're building solutions which improve patient outcomes.
- Systems Rationalisation: Build robust, scalable & interoperable products, in line with emerging National digital landscapes.

In recent years, particularly after COVID, keeping the lights on has taken a front seat, which has created a mounting technical debt that needed to be addressed.

In developing the routemap we have also developed the governance of the digital delivery portfolio, using the existing digital and data design authority to assure the major delivery work. In collaboration with colleagues across PHW, we have agreed an approach where we will reduce work in one or two of the three areas when a significant resource push is needed to complete a piece of work.

Digital systems delivery – next 3 steps

Workstream	Responsible for workstream	Milestone 1	Milestone 2	Milestone 3
Governance	Fliss Bennee	Complete the template portfolio for DDDA Sep 2024	First meeting of the Technical Design Authority Oct 2024	Integrate digital portfolio with PHW PMO Mar 2025
Health Protection	Fliss Bennee	Deliver Alpha Dec 2024	Deliver Beta Sep 2025	Deliver MVP Mar 2026
All Wales digital programmes	Helen Clayton, Anwen Roberts	Deliver CANISC Dec 2024	Deliver RISP in PHW Feb 2025	Deliver LIMS 2 in PHW Oct 2025
Newborn Screening	Dafydd James	Complete tender for partner Sep 2024	Re-platform back and front end from Oracle 12 Mar 2025	Decommission the remaining Oracle 12 infrastructure TBC 2025
Breast Screening	Anwen Roberts, Helen Clayton	Joint roadmap w/Screening Oct 2024	Establish Alpha Jan 2025	Breast SIMS live Mar 2026
Lung Cancer Screening	Anwen Roberts	Requirements & feasibility Oct 2024	Business case & funding Mar 2025	Lung Screening live Mar 2027
System discoveries	Monika Swiatek	NBSS Breast replacement Sep 2024	CSWACC database replacement TBC	

Automation and AI – what we've done

March 2024

Real-time Suicide Surveillance Automation implemented

We have completed as much as we can in the current system.

Discovery work on automation with Microbiology completed

June 2024

End-to-end process mapping of cancer and other statistics

This is to be completed as a pilot in the National Data Resource due to complete in December 2024

Automation and AI routemap completed and agreed

A draft will be shared with all parts of PHW through a series of workshops in September and October 2024

Automation and AI – next 3 steps

Workstream	Responsible for workstream	Milestone 1	Milestone 2	Milestone 3
Data pipeline automation	Sathiskumar Jothi	Automation of real time suspected suicide surveillance data incoming Sep 2024	Deliver automated documentation for information assets Dec 2024	Automation of daily reference and demographic data updates Mar 2025
Activity automation	Anwen Roberts, Sathiskumar Jothi	Automation of PHW monthly report creation Nov 2024	Automation of data quality monitoring in cloud Mar 2025	Pilot self-service reporting in the NDR Mar 2025
AI policy and implementation	Louisa Nolan	Pilot ChatGPT in analysis and development teams	Scoping and planning for AI and Automation routemap	Embedding and sharing good practice across PHW working with the NHS and Social Care Wales AI working group

People, infrastructure and tools – what we've done

June 2024

Agree a single code hub and collaboration platform
- PHW chose github for code collaboration

Develop a documentation library

- we have extended our documentation and begun a technical design authority to share design patterns and standards for documentation and activity

Persona and discovery library in place

- we have created a shared space for keeping and cross referencing the discoveries and the personas that have been developed in our user-centred design work

People, infrastructure and tools - now

The people, infrastructure and tools component of the routemap is the most diverse and most uniting stream. We consider it to be the underlying structure and capabilities that Public Health Wales needs in order to achieve our goal of delivering high quality, timely and safe services with a digital or data component.

In caring about our people, both in the digital, data and technology profession and in the wider Public Health Wales, it is important for us to ensure that we provide a clear vision, accessible training and suitable devices and network. With that strong foundation, everyone in Public Health Wales can be confident in having the technology and support they need to accomplish their tasks.

People, infrastructure and tools – next 3 steps

Workstream	Responsible	Milestone 1	Milestone 2	Milestone 3
People - digital, data and technology specialists	Louisa Nolan	Continue delivery of Cloud training on GCP and Azure for Cloud team members Oct 2024	Agree national standards for the digital, data and technology professions through NHS capability framework and job families Mar 2025	Continuous professional development along the capability framework or SFIA guides is built into each DDAT role
People - PHW colleagues	Monika Swiatek, Suki Baynton Anwen Roberts	Deliver continual programme of Agile training and communication	Identify needs for both self-service reporting and analytical tool training	Develop training and communications plan to enable PHW to use relevant practices and tools Apr 2027
Infrastructure - networking	Simon Thomas	RISP routing & VPN tunnels - Feb 2025	LIMS2 implementation inc network encryption & firewall changes for data flows. Oct 2025	Stage 1 of network capacity development for future requirements & cloud capacity
Infrastructure - cloud	Dennis Jones	Access policy for Azure	Connectivity policy and business case for increased bandwidth	
Infrastructure – network security	Jonathan Jones	Firewall Replacement(s) in co-operation with Network team	Firewall & Web-filtering improvements	Vulnerability Management & Penetration testing programme
Tools - hardware	Simon Thomas	24/25 PC Replacement plan implemented - March 2025	Core server infrastructure refresh & virtualisation strategy – July 25	Network Switch end of life replacement programme
Tools - data	Nathan Lester	Agree the analytical toolset at the DDDA Dec 2024	Begin decommissioning obsolete reporting tools	Begin decommissioning obsolete analytical packages
Tools - development	Anwen Roberts	Agree the toolset for development and collaboration Oct 2024	Implement the toolset for development and collaboration Dec 2024	Begin decommissioning unused development components

Risks and uncertainties

What is in this paper is a high-level overview of a huge programme of work. We are aware that this is an ambitious routemap for PHW, and there are risks:

- Some of the milestones or work streams rely on external partner organisations delivering to agreed timescales. This has not always happened.
- Whilst we carry technical debt, there is a risk that we will need to rapidly deprioritise some streams in order to replace items that become a clinical harm or cyber security issue.
- The organisation may not be culturally ready for change at this pace
- There may be further rounds of budget reductions that would lead to delay or postponement of some work