

North West London Pathology

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A THRIVING INTEGRATED
PATHOLOGY NETWORK



Patient-focused



Collaborative



Expert



Caring

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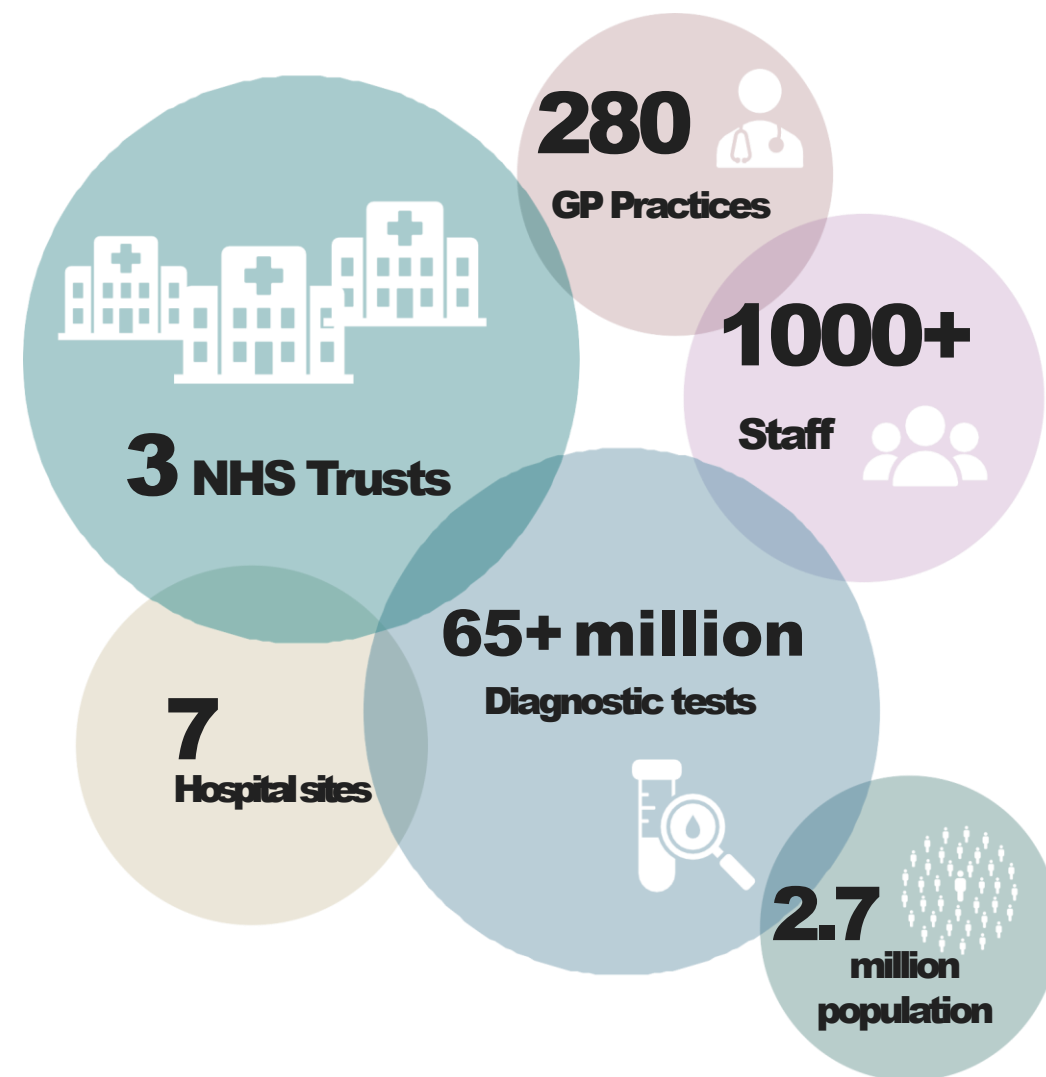


ABOUT US

North West London Pathology (NWLP) is a partnership between three leading NHS Trusts - Imperial College Healthcare NHS Trust, Chelsea and Westminster Hospital NHS Foundation Trust and The Hillingdon Hospitals NHS Foundation Trust. While the organisation is hosted by Imperial College Healthcare NHS Trust, it is jointly owned by the three Trusts.

Through significant investment and transformational initiatives, we are now one of the largest laboratory diagnostic services providers in the UK.

The NWLP network operates on a hub and spoke model. Through seven hospital sites, we deliver approximately 40 million billable tests annually, a testament to our scale and efficiency. NWLP's services extend their reach to approximately 280 GP practices within the North West London Integrated Care System, serving a population exceeding two million.



CONSOLIDATING PATHOLOGY SERVICES

In 2017, NHSEI committed to consolidating pathology services in England by proposing 29 hub and spoke networks. This ambition has widened to use these networks as a key enabler of ambitions outlined in the Long Term Plan.

“Consolidating pathology services allows for most consistent, clinically appropriate turnaround times ensuring the right test is available at the right time. It makes better use of our highly skilled workforce to deliver improved, earlier diagnostic services supporting better patient outcomes. Taking a hub and spoke approach to this consolidation can ensure an appropriate critical mass to support specialist diagnostics, so that patients have equal access to key tests and services are sustainable.”

NHSEI, Pathology networking in England: state of the nation November 2019

PATHOLOGY NETWORKS EXPECTED OUTCOMES IN IMPROVING PATIENT CARE AND DELIVER POTENTIAL EFFICIENCIES

Patients:

- patients should receive quicker, more advanced and reliable screening test results.
- access to pathology services won't change — core services will still remain in hospital labs
- there will be an introduction of a new wave of genetics

Potential efficiencies:

- the 122 individual pathology units within NHS Hospitals in England will join-up and form a series of 29 networks, now 27.
- the new networks will bring together clinical expertise, ultimately making these services more efficient that deliver better value, high quality care for patients
- enhance career opportunities for staff, whilst being more efficient, delivering projected savings of at least £200 million pounds by 2020-2021.

National pathology services networking map



The data on the following pages is taken directly from the dashboard for the 29 pathology networks in England and reflects NHS England and NHS Improvement's assessment of data at 1 September 2019.

CHANGE IS DIFFICULT!

...OR IS IT?

The need to use tools, techniques and mindset that are **change focused** is essential. Business as usual ideas need to be challenged, will they work in a change environment?

- The brutal fact is that about 70% of all change initiatives fail.

Beer, M. and Nohria, N. (2000) Cracking the code of change. Harvard Business Review 78(3): 133-141.

- Three out of four mergers and acquisitions fail to achieve their financial and strategic objectives.

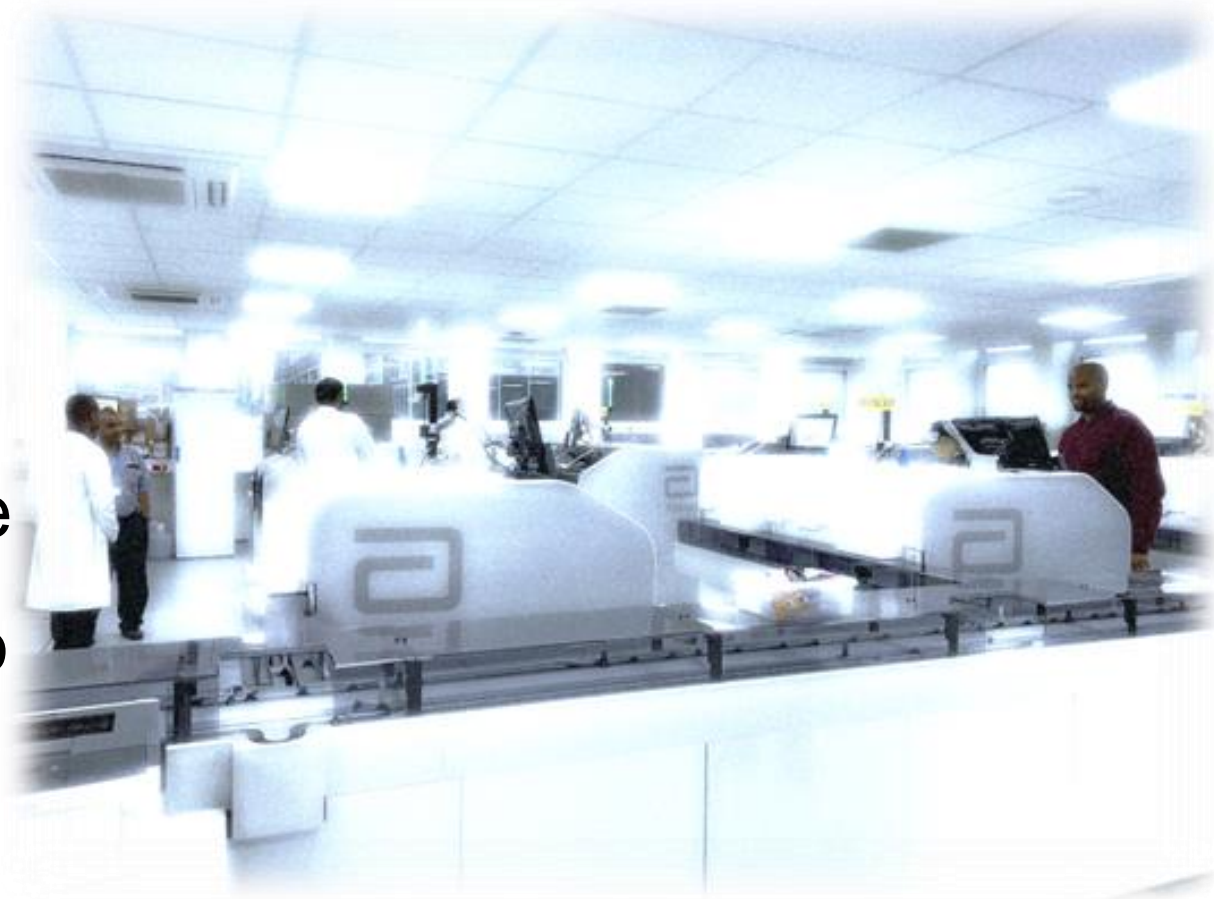
Marks, M. L. and Mirvis, P. H. (2001). Making Mergers and Acquisitions Work: Strategic and Psychological Preparation. Academy of Management Executive 15(2): 80-94

- Some organisations expect that they can achieve benefits without properly investing in the process of change management or effectively guiding their employees through the journey.

Google (ud) The value of change management. Available at <https://support.google.com/a/answer/9212588>

OUR VISION

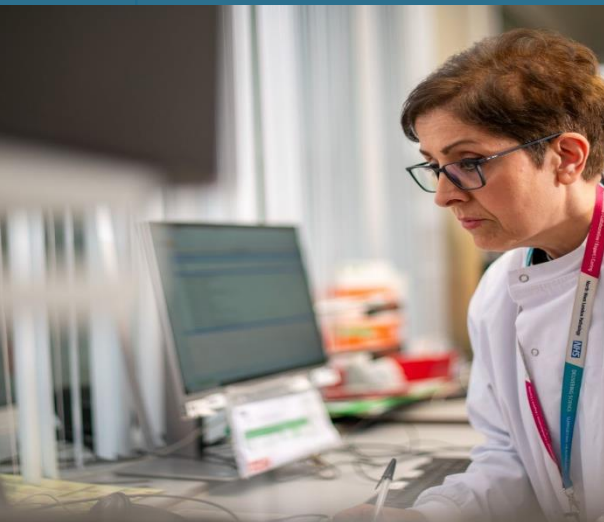
“To be the industry leading laboratory diagnostic service and a recognised Centre of Excellence, driving cutting edge technological advances and innovation to support sustainable clinical services”



OUR STRATEGIC GOALS

01 WORKFORCE

A thriving, sustainable and agile workforce that is empowered to deliver our vision.



02 INNOVATION & TECHNOLOGY

Be at the forefront of diagnostic innovation by harnessing the latest developments in laboratory medicine to continuously improve patient outcomes.



03 OPERATIONAL EXCELLENCE & SUSTAINABILITY

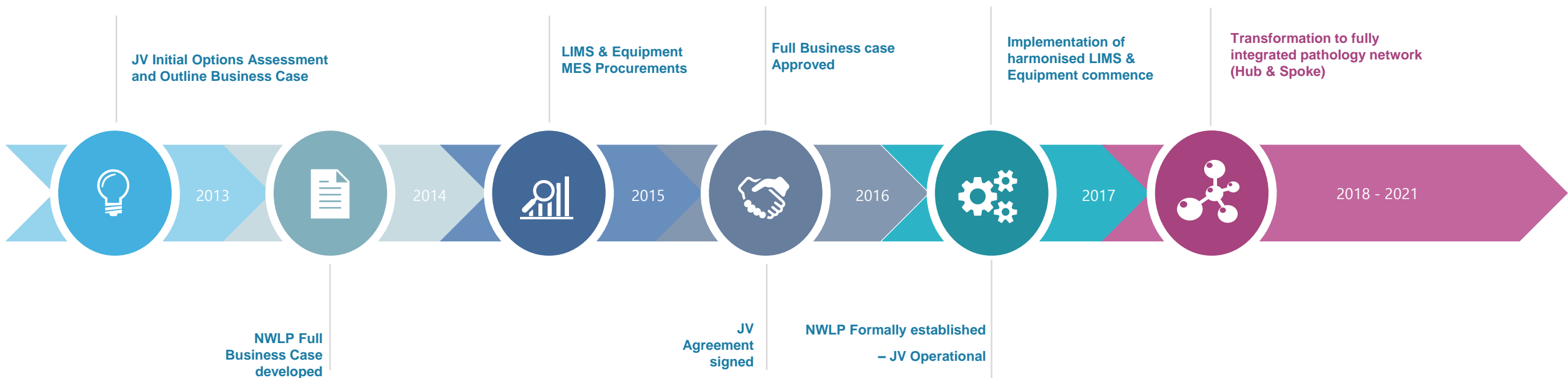
Establish an environment that fosters a mindset of high performance and enables continuous sustainable improvement.



04 GROWTH & CUSTOMERS

Advance our market position as a leading provider of laboratory medicine by offering an attractive customer proposition.





OUR HISTORY FROM THE BEGINNING

NWLP
A THRIVING INTEGRATED PATHOLOGY NETWORK

OUR CLINICAL SERVICES

We offer a **comprehensive array of clinical laboratory diagnostics** including internationally recognised specialist services, supremely combined with the clinical excellence and expertise within our partner Trusts and further reinforced by our affiliations with Imperial College.

Our laboratories are **seamlessly integrated** under a single Laboratory Information Management System (LIMS) and equipped with cutting-edge technology and harmonised state-of-the-art analytical platforms. This ensures **consistency**, **accuracy**, and **efficiency** in our diagnostic service.

Our **hub laboratory**, centrally located at Charing Cross Hospital, serves as the nucleus of our operations. The majority of routine, specialist, and non-urgent laboratory testing is performed at our hub laboratories to the highest standards of quality.

Urgent tests required for immediate patient management and treatment are performed at our six **spoke site laboratories**, which operate tirelessly round the clock, 24/7, to ensure rapid and precise execution of urgent tests, underscoring our commitment to timely healthcare interventions.

Our expert services span **over 23 specialist areas** within our diagnostics divisions.

Division of Infection, Immunity and Cellular Diagnostic Sciences

Infection and Immunity

- Immunology
- Histocompatibility and Immunogenetics
- Microbiology
- Virology and Serology

Cellular Diagnostic Sciences

- Histology
- MOHS
- Electron Microscopy (EM) Unit
- Diagnostic Cytology
- Specialist Integrated Haematological Malignancy Diagnostic Service
 - SIHMDS: Molecular Pathology
 - SIHMDS: Cytogenetics
 - Immunophenotyping

Division of Blood Sciences

- Clinical Biochemistry
- Andrology
- Aldosterone and Renin
- Endocrinology
- Bone metabolism
- Metabolic
- Oncology
- Specialist protein service
- Trace Elements
- Haematology
- Special Haematology
- Specialist Coagulation
- Blood Transfusion
- Point of Care Testing (POCT)

CORPORATE & SUPPORT SERVICES

Our laboratory diagnostic services are complimented by an array of corporate and support services that are the backbone of our organisation.

These services encompass a wide range of functions, each integral to maintaining the seamless operation of NWLP.

Our corporate and support services are essential for driving excellence within our organisation and play a pivotal role in enabling us to achieve our strategic objectives and maintain a competitive edge in the market.

Pathology Support Services

- GP liaison
- GP Consumables
- Transport and logistics
- Pathology Call Centre
- Pathology IT Call Centre
- Specimen Receptions
- Pathology Referrals

Finance

IT & Informatics

Workforce & HR

Quality

Research
& Innovation

Communications

Continuous
Improvement

Project Portfolio
Office



WHAT MAKES US UNIQUE

- Exemplary networked hub and spoke model meeting Carter recommendations
- Unified Laboratory Information Management System and advanced harmonised Analytical Platforms across our laboratories.
- One of the largest Digitally enabled organisations in histopathology across England.
- One of the only two 'Thriving' Pathology networks from the 27 in England.
- A renowned Training Academy and an award-winning employee onboarding programme.

Our Histopathology Challenge

- ❖ Histopathology is one of the seventeen specialities / services provided by NWLP.
- ❖ Essential clinical aspect of the end to end service for cancer.
- ❖ Over 6% increase in requests received by the laboratory annually.
- ❖ The pandemic had meant that patients were presenting at later stages adding to complexity.
- ❖ Laboratory capacity had not kept up: staffing levels had not increased at the same rate as demand, for both laboratory and consultant staffing.
- ❖ Key strategic objectives for NWLP - **optimisation** across quality, **efficiency**, **workforce** and **infrastructure**, as well as building a **customer focused** organisation.

Setting the Scene



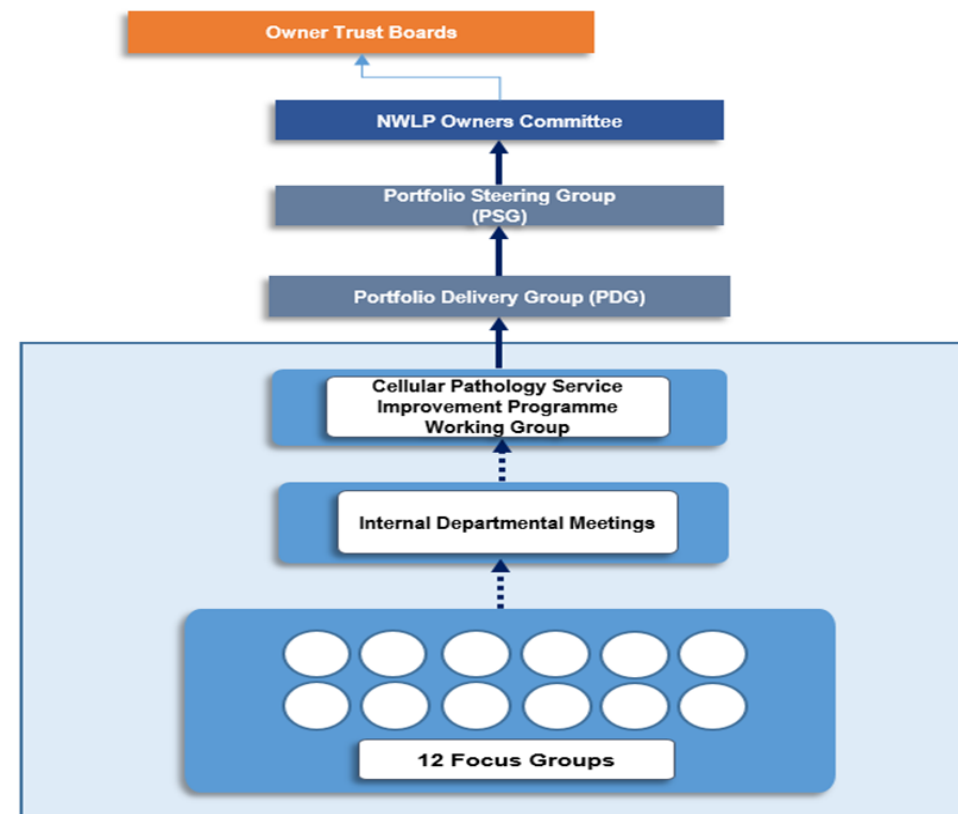
**North West
London Pathology**

- ❖ Centralisation of Cellular Pathology from across 6 Hospital sites into a single, consolidated hub at Charing Cross Hospital in 2020
- ❖ Significant operational changes alongside management of the pathology response to a global pandemic
- ❖ Service improvement programme – new LIMS, new equipment, new staffing models, new operating processes and pathways, enhanced logistics
- ❖ 12 hours / 6 day operating service
- ❖ £2.1m investment in staffing
- ❖ Centralisation of Histopathology Consultants, consolidation of teams and clinical operating model across the three Partner Trusts
- ❖ Oct 2020 Diagnostics: Recovery and Renewal - Independent review of diagnostic services for NHSE
- **Recommendation 19: Improving connectivity and digitisation across all aspects of diagnostics should be prioritised to drive efficiency, deliver seamless care across traditional boundaries and facilitate remote reporting.**

LEADERSHIP IN A PROJECT ENVIRONMENT

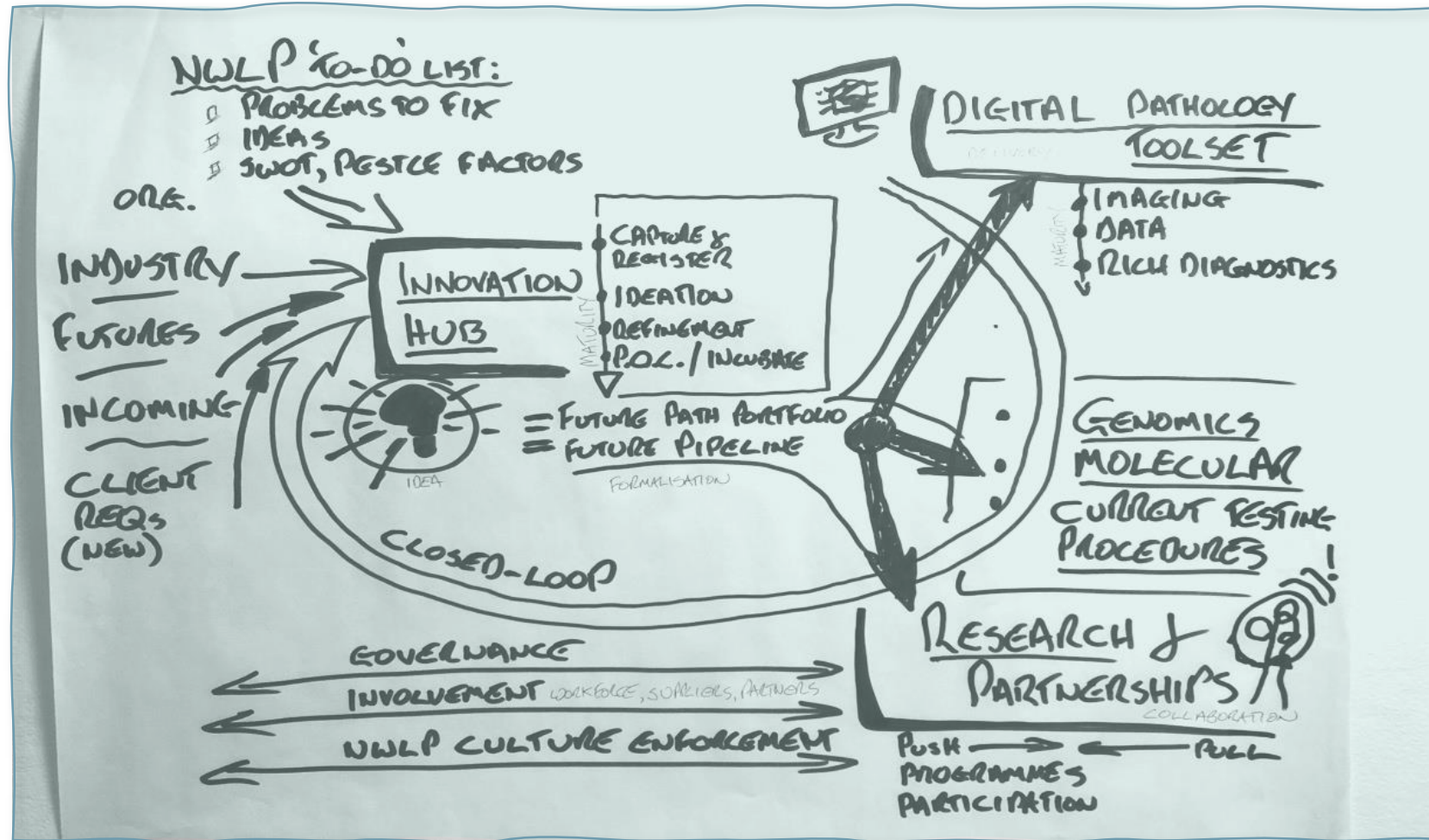


IMPROVEMENT



LEADERSHIP IN A PROJECT ENVIRONMENT

Innovation & Technology: ideas capture to realisation workflows & relationships



NWLP STARTING POINT

- ❖ Consultant-led service headed by the Clinical Lead
- ❖ Cellular Pathology services have been centralised and standardised into a single hub site at Charing Cross
- ❖ Services using a single LIMS system (CoPath)
- ❖ Already had some limited onsite experience of digital pathology with frozen section service
- ❖ Strong appetite to progress with digital
- ❖ Help address current challenges with workload
- ❖ Introduction of computational pathology/decision support tools, enhancing standardisation

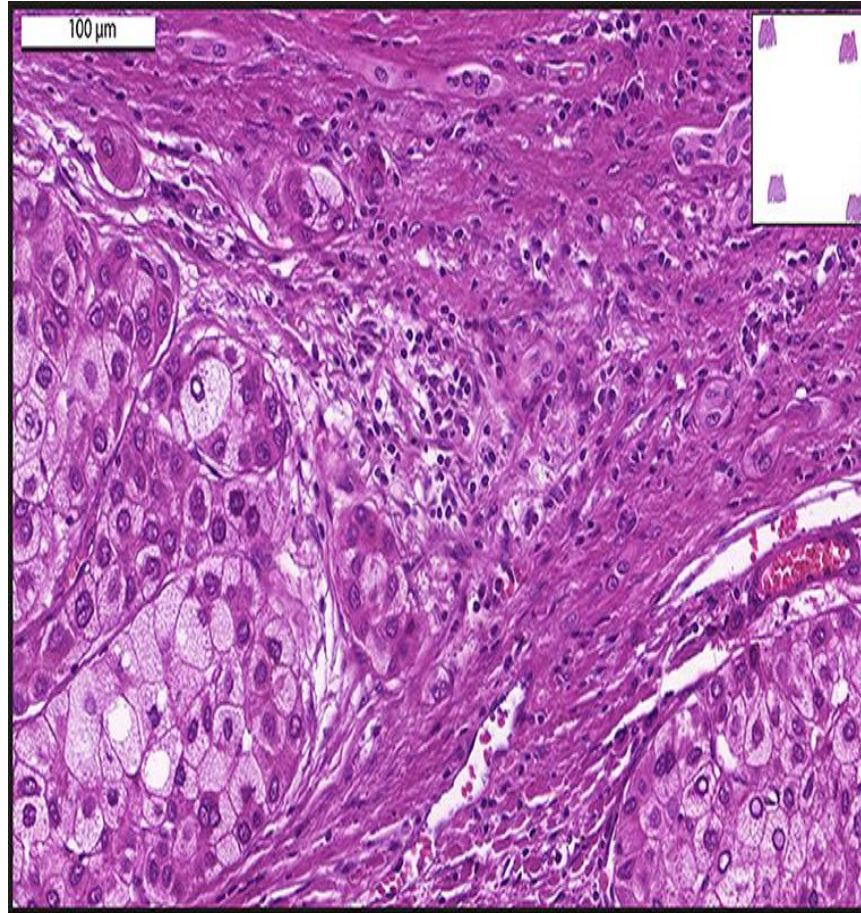
ADVANTAGES OF DIGITAL SCANNING FOR NWLP

- Streamlined workflows
 - Efficient management of cases
 - Easy access to digitised slides
 - Case sharing / second opinion
 - Contribute to achieving cancer pathway targets
 - Deploy existing and future workforce to the best effect
- Remote Accessibility
 - Access to MDT's
 - Flexibility in clinical reporting model
 - Access to hybrid working and remote reporting
 - Improved in-sourcing / out-sourcing to meet service demand
- Enhanced storage and Retrieval
 - Workflows optimised to ensure case accessibility
 - Digital storage – requires guidance from professional bodies on digital vs glass storage

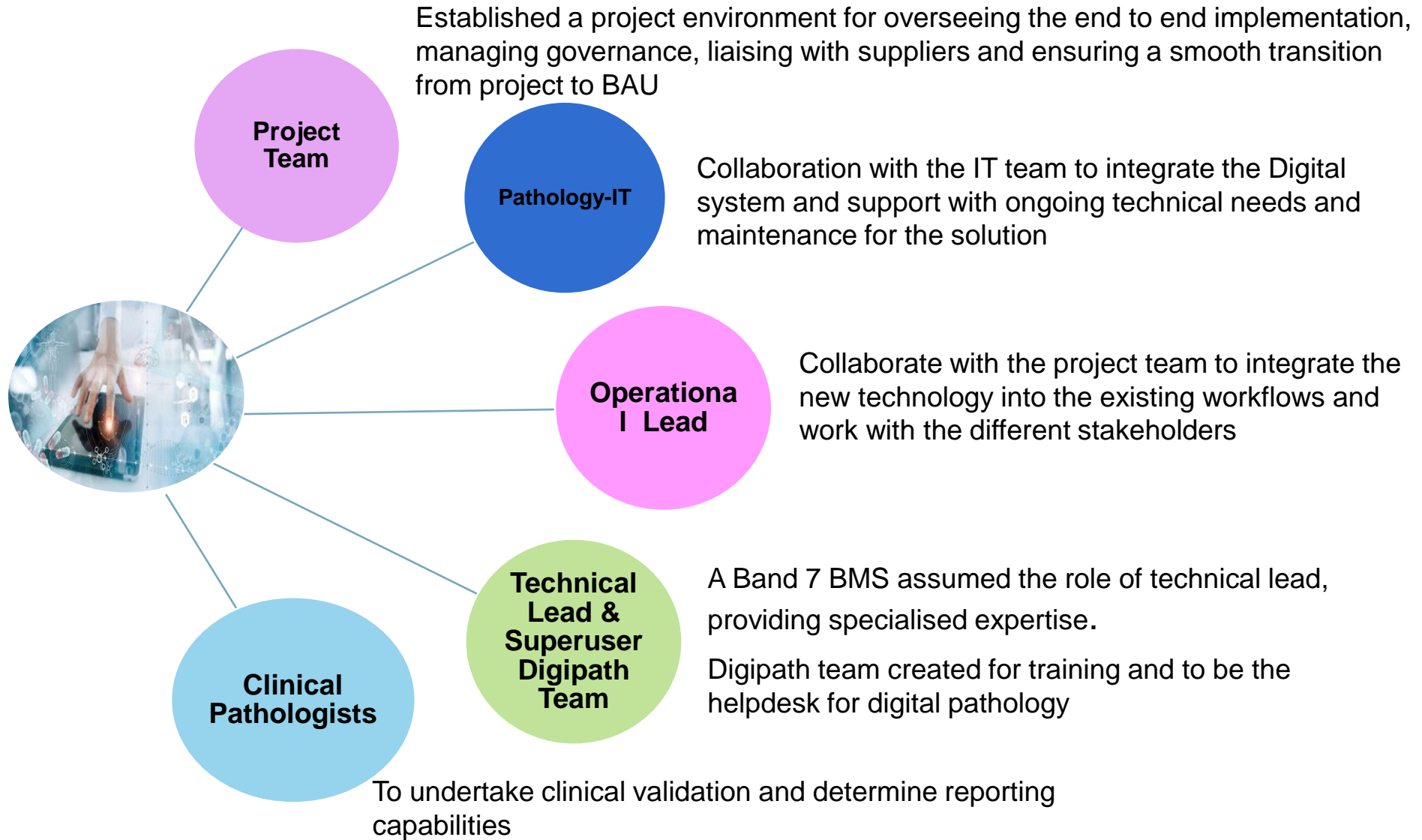
- ✓ Innovative ways on working in a fast paced and ever moving environment
- ✓ Digital, innovation, technology and transformation underpins delivery of optimum patient care
 - ✓ Meet the demands of the patients needs
 - ✓ Provide service excellence

FUNDING

- Successful in securing £6.7m of funding from NHS England 2021 for implementation and integration of a digital pathology solution
- We have led the deployment of innovative diagnostic tools across our services in record time. Initiated 2022 and completed 2023
- A digital programme team was established to deliver the digitisation of Histopathology



THE DIGITAL TEAM



NWLP DIGITAL PATHOLOGY SCOPE

- ❖ Looking for a full end to end solution
- ❖ Phased approach for deployment
- ❖ Scalable solution if additional sites taken on
- ❖ Data storage to be hosted locally on Imperial datacentre(s)
- ❖ Resilient backup and disaster recovery options
- ❖ Integration with LIMS critical (patient context lookup)
- ❖ Reporting solution options
- ❖ Remote system access, working from home (Phase 2/3)
- ❖ AI decision support
- ❖ Ability to exchange images with other solutions on ad hoc basis. Supporting MDT/referrals

THE SCANNERS AT NWLP



11x Philips SG300 high performance



3x Glissando scanners for Mega slides








The combination of these state-of-the-art scanners ensures a comprehensive and reliable digital pathology infrastructure



PROJECT PHASES



North West
London Pathology

Wave	Specilaity	Phase	Time frames	Esimated Go-Live
Wave 1 	Renal and Liver	Phase 1	4 weeks	26th May 2023
		Phase 2	4 weeks	21st July 2023
		Phase 3	4 weeks	25th August 2023
		Go-Live	4 weeks	31st August 2023
Wave 2 	Head and Neck and Skin	Phase 1	4 weeks	1st September 2023
		Phase 2	4 weeks	31st March 2024
		Phase 3	4 weeks	3rd April 2024
		Go-Live	4 weeks	10th April 2024
Wave 3 	Lung	Phase 1	4 weeks	1st September 2023
		Phase 2	4 weeks	31st March 2024
		Phase 3	4 weeks	22nd May 2024
		Go-Live	4 weeks	29th May 2024
Wave 4 	Endocrine Haempath Placenta Cardiac Urology	Phase 1	4 weeks	9th April 2024
		Phase 2	4 weeks	7th May 2024
		Phase 3	4 weeks	18th June 2024
		Go-Live	4 weeks	29th June 2024
Wave 5 	GI Gynae Breast Trophoblast	Phase 1	4 weeks	9th April 2024
		Phase 2	4 weeks	15th July 2024
		Phase 3	4 weeks	23rd July 2024
		Go-Live	4 weeks	31st July 2024



THE PROCESS

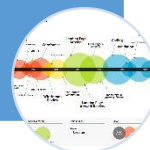
- Integration of the digital scanners with the existing IT infrastructures and LIMs

System Integration



- Streamlined the digital pathology workflow to improve efficiency and turnaround times

Workflow Optimisation



- All 11 Philips SG300 and 3 Glissandos had to be validated to include a representation of the service

Validation



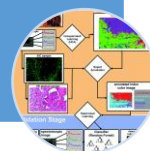
- All lab staff and A&C staff were trained to use both the digital scanners and the IMS.
- Pathologists trained to report digitally

Training



- All Pathologists were involved with the clinical validation and RCPATH guidelines were followed

Clinical Validation



- Provide technical support and troubleshooting to ensure the systems reliability

Technical Support



KEY CONSIDERATIONS



**North West
London Pathology**

Integration of different staining platforms with the Philips IMS
ICC platforms and Special staining platforms

Working closely with the Digital solutions supplier to quickly resolve issues in the validation process

Allocation of work to the pathologist

Process mapping and implementation - full workflows from the patient to the pathologists

Pathologists that report multiple specialities – timing of switch over

Regular meetings between the different stakeholder groups to ensure good communication and troubleshooting

Managing change on such a large scale whilst maintaining BAU

Essential recognition of the programme management, governance and resource requirements

Flexibility to manage operational resources – in/out sourcing

Current Status

99% of slides scanned from 31st March 2024

Specialities are reporting digitally

Improved MDT preparation with digitised presentation

Time reduction for cases required for double reporting/ 2nd opinion

Efficient, modern, cost-effective service operating model

Increased bank of teaching resources available – improved clinical training

Up skilling of workforce – Consultant reporting Biomedical Scientists

Trialling the use of artificial intelligence to augment clinical reporting

Trialling the use of artificial intelligence to augment clinical reporting

What next with Histo...

Development of regional
diagnostic hubs to balance
demand with supply of clinical
reporting
UK wide collaboration

Provide opportunities to adopt
innovative digital technology
solutions including
AI/computational pathology.

Developing roles within the
service with enhanced digital
training solutions

Flex of clinical operating models
to support workforce

Improvements in recruitment and
retention

Demonstrable improvements in
Quality and Performance

National image sharing
Commercial collaborations

Enable AI, machine learning and
deep learning to build on
diagnostics and research

QA scheme already using digital
technology
Future of RCPATH exams for
Consultant Histopathologists
based on digital technology



Our people are at the heart of everything that we do and are key to providing a great service to our owners, our customers, our patients and our colleagues.

People Strategy

At the heart of everything



Key Themes for change

At the heart of our work is our commitment to make NWLP a better and fairer place for all people – celebrating their talents, whatever their background or needs

ATTRACTING
PEOPLE

PEOPLE
DEVELOPMENT &
LEADERSHIP

SUPPORT AND
BELONGING

ENGAGEMENT &
WELLBEING

KEEPING GREAT
PEOPLE

WORKING AS
A TEAM TO
TRANSFORM

**People
Strategy**

At the heart of everything

NWLP Green Strategy 2024 - 2028



Vision:

To lead by example in sustainable diagnostic practices, minimising our environment impact while maintaining high standards of patient care and diagnostic excellence.

Mission:

To integrate sustainability into every aspect of our pathology service, by reducing our carbon footprint, promoting resource efficiency and fostering a culture of environmental accountability amongst our staff and stakeholders.



Areas of Focus:

Travel and transport



NWLP will work with our transport suppliers to ensure that environmentally sustainable practices are employed to reduce carbon emissions. Our aim is to decarbonise our transport fleet and minimise the environmental and health impacts associated with the movement of specimens, staff and materials.

Workforce and leadership



NWLP will be developing a workforce culture where sustainability is embedded in our everyday working practices across all aspects of our organisation. With appropriate training and development, the creation of Green Champions and a newly established Sustainability Forum we will engage with our staff and our partners to define and deliver carbon reduction initiatives towards our sustainability goals.

Building and estates



NWLP laboratories are hosted at our partner Trusts' hospital sites. We are working in collaboration with the three Trusts towards collective efforts and initiatives related to estates looking to reduce the carbon footprint. As part of our 5 year Strategic Plan we will be looking at a new building for our hub. As part of our relocation our focus will be in driving a design where our estates & facilities are driven by sustainability.

Sustainable models of diagnostic services



Embedding net zero principles across all diagnostic services is vital. At NWLP we will be considering carbon reduction opportunities in the way in which our diagnostic services are delivered and work with service users to identify opportunities to reduce unnecessary testing.

Energy conservation



NWLP will be exploring options to optimise the use of laboratory equipment to reduce energy consumption. We will work with our partner Trust and our key suppliers to establish energy conservation projects, and champion good energy utilisation practices amongst staff.

Supply chain and procurement



NWLP is committed to change the approach of utilising resources as well as the way products are produced and distributed. We will be focusing to ensure that the purchasing, the use, and the disposal of products are all aligned with sustainable practices. One of our objectives is to adopt sustainable procurement so that our purchasing is compatible with the protection of the environment as well as meeting the criteria for ethics, society and social value.

Digital transformation



Aligning digital transformation with net zero ambitions is a critical part of our green plan. By utilising existing and new digital technology within our organisation we can streamline service delivery and supporting operational functions, while improving the use of resources and reducing our carbon emissions.

Reducing waste



NWLP will be focusing on reducing single use plastics and disposables consumables. We will consider how we can change our practices to support green initiatives by adopting the reduce, reuse and recycle approach. We will seize opportunities to reuse laboratory consumables and equipment where possible. We will champion waste segregation and promote effective waste management solutions with staff.

NWLP Green Strategy 2024 - 2028

Already making a difference...

Digital Histopathology:

- support remote working, reducing the need to travel
- simplify logistical requirement to transport physical glass slides for review
- reduce the use of paper records, printing and postage.

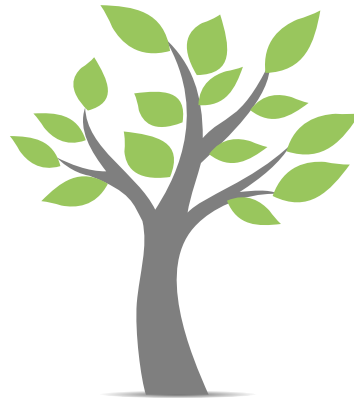
Data repository: Integration of legacy IT systems into a single data repository resulting in the decommissioning of aging infrastructure. Physical infrastructure sent for recycling.

Pass through numbering:

- reduce the need for placing individual sample in separate plastic bags.
- remove the requirement to send a paper request form with each sample.
- reduce the amount of labels required to process samples once received in the lab.
- facilitate the drive to reduce unnecessary phlebotomy amongst service users.

Reducing Waste:

NWLP has distributed over 1500 reusable travel mugs to staff to promote sustainable lifestyle habits and reduce plastic consumption.



Pathology support services:

- reduce paper by implementing electronic methods for managing outstanding work and batch lists.
- reduce the number of spare tubes we receive will clinical waste, plastic consumption and have a positive impact on patient care.

Call centre: reduce the amount of paper reports posted to service users. Utilise electronic means. Save on paper waste, reduce unnecessary printing and postage costs.

Implementation of 10ml urine container: removing the requirement to decant urine into a smaller tube for analysis which will reduce the use of single use plastics.

Capital replacement: implementation of new fridges and freezers. Replacement of 23 fridges and freezers as part of capital replacement scheme with more energy efficient models (32% more efficient) which contain more environmentally (non-CFCs) friendly cooling materials.

Clinical Chemistry: Working with GP partners to streamline Vitamin D ordering, optimise Renin and Aldosterone assays and implement new more sustainable equipment as part of capital replacement scheme.

NWL HEALTH ECONOMY

Most of our patients come from across North West London, though our specialist services support regional, national, and international patients.

Local population is amongst the most diverse in England and Black, Asian and Minority Ethnicity residents are the majority in five of the eight boroughs.

Population is younger than average, where median ages are between 35 and 40 in each borough compared to an English median of 40.

NWL population is expected to grow by 800,000 people over the next 20 years with this concentrated in 20-29 age groups and amongst over 60s where healthcare demand significantly increases.

Although NWL is slightly wealthier than national averages, one in eight of residents live in amongst the 20% of the poorest neighbourhoods in England.

Health inequalities in life expectancy are stark and increasing with a 20-year gap between the most and least deprived members of our local communities.

Health inequalities are also very local where there can be a 15-year gap in life expectancy between neighbourhoods within a 15-minute walk of each other.

OUR ROLE



- We will respond to the shared priorities across the healthcare economy in NWL including population health management,
- We know what we do directly impacts the decision making and therefore timely discharge, maternity, cancer care and planned care.
- There are changing population health needs and population health management approaches across the Acute Trusts we serve. There is now much greater recognition that targeting unwarranted variations in patients with multi-morbidities, from minority ethnicities and higher areas of deprivation will see the greatest gains in equity and support overall improvements in outcomes.
- Prioritising organisational development capacity to strengthen and improve the culture and ways of working that enable sustainable change.
- Upskilling and support on technical improvement skills within teams in collaborative training programmes. This will create new connections and networks, support best practice training and tools that lead to effective, sustainable, inclusive change.

OUR FOCUS FOR THE FUTURE



- Utilise healthcare data to support the shift towards a more prevention-focused healthcare model. Application of data analytics and machine learning algorithms to pathology data to enable predictive modelling and the identification of opportunities for quality improvement in healthcare outcomes.
- Pursue technological advances and adopt Artificial Intelligence
- Increase our digital capability in other pathology specialties
- Pursue strategic partnerships in Research and Innovation
- Diversify our services in other markets
- Increase direct-to-consumer diagnostic testing services.
- Continue to spearhead national agenda discussions for the future of laboratory diagnostics



NHS
**North West
London Pathology**

Thank you !

