

NHSE 10 Year Plan – IBMS

Q1. What does your organisation want to see included in the 10-Year Health Plan and why?

The Institute of Biomedical Science (IBMS) is the UK professional body representing the majority of the UK pathology workforce, comprising biomedical scientists, clinical scientists and laboratory support staff. The IBMS has a strong working relationship with the Royal College of Pathologists (RCPATH), which represents clinical pathologists and some clinical scientists, and is supportive of the views presented in its response.

The IBMS welcomes the opportunity to offer its view on the priorities it feels should be considered as an integral part of the 10 Year NHS Plan. It is appreciated that expectations will have a strong emphasis on those services most visible to the patient. However, pathology services are an integral part of healthcare delivery and as such the comments made are intended to emphasise the opportunities to strengthen and develop the largest sector of the pathology laboratory workforce, biomedical scientists, in a manner that is effective, efficient and affordable and which will generate positive results within the timeframe of the Plan.

The IBMS recognises and is encouraged by the resources that have already been directed to pathology services. Clear benefits have been achieved through pathology service reconfigurations into networks and the increasing adoption of point of care services to complement laboratory-based services.

It is recognised that the scope of the Plan is immense, and public expectation will be for visible changes that deliver better services. However, the expertise of the IBMS is in the field of diagnostic laboratory services, therefore this response is focussed on this particular element of patient care.

A clear acknowledgement of the increasing importance of diagnostic pathology services in detecting, monitoring, treating and successfully managing diseases and health conditions should be an essential element of the 10-Year Health Plan. For the aspirations and expectations of the general public to be met, the significance of the 'less seen' services, as well as those more public facing, needs to be recognised.

The term 'personalised medicine' is well established but probably poorly understood by most. The importance of laboratory genetic testing services, aligned with and linked to local histopathology and haematology laboratory services is key to delivering better cancer diagnoses and treatment regimes. Local biomarker tests are being increasingly used in routine cancer care to help identify the type of cancer a patient has and inform judgements on the suitability of a treatment and how a patient might respond. While the benefits are obvious, they do not come without challenges; cancer diagnostic services provided by histopathology laboratories are consequently facing increased demand with higher volumes of testing alongside the introduction of more complex tests. Without the necessary capacity, patient care and outcomes will be compromised.

The 2022 five year strategy, *Accelerating genomic medicine in the NHS* (12 October 2022: NHSE Publication reference: PR1627), laid out the ambition to drive the implementation of genomic and genetic testing across the health service. The consequence of this will be an increase in demand for pathology services, both in the number and complexity of tests performed. The strategy recognises that to support more extensive cancer genetic testing there is a need to address capacity issues across pathology services and the issues around long turnaround times. Turning these aspirations into a reality must be an objective within this new 10 year Plan.

The 2023 NHS Long Term Workforce Plan identified how *“the lack of a sufficient workforce, in number and mix of skills, is already impacting patient experience, service capacity and productivity”*. The new NHS 10 Year Health Plan is an opportunity to consider the specific needs of the full regulated scientist workforce and the greater benefits it could bring to patient care if fully considered as an integral part of the delivery of the strategy. A sustainable workforce model needs to be implemented that enables all professional roles to operate at the top of their licence. This, along with a focus on recruitment, retention, training and skill mix initiatives will collectively reduce gaps in the workforce and empower scientists to embrace the benefits of automation and digital capability. The primary factor in limiting workforce development and expansion is the lack of available training time. IBMS accredited biomedical science degree courses are highly popular and those with a clinical placement are usually oversubscribed, but lack of training opportunities in laboratories due to lack of trainer time ensures that the majority of these graduates do not manage to secure a laboratory job with training opportunities.

The reason for making this specific point is that science is playing an increasingly important part in the delivery of healthcare. Science can now predict the likelihood of an individual developing a particular disease or condition; it can determine which treatments will be most effective for a particular patient with a particular condition; science used effectively can save lives and save money. Science and those who deliver it must therefore be a key consideration in any long-term healthcare strategy.

Q2. What does your organisation see as the biggest challenges and enablers to move more care from hospitals to communities?

The notion of a patient care ‘pathway’ is highly desirable but too often, far from a reality. The patient experience comprises of a series of disconnected “stepping stones”, that create inefficiencies and “bottle necks”. A genuinely joined up service requires serious commitment and investment in technology and better change management. If well managed, the system should be automatically innovating and developing as clinical/technology/treatments improve. There needs to be a far more multi-professional and holistic approach to patient care, particularly for patients with multiple co-morbidities. Open communication between laboratories and clinicians is essential for ensuring the appropriateness of test orders and accurate interpretation of

results. Laboratories can and should provide feedback on test utilisation and offer consultative support to help clinicians interpret complex results, particularly in areas like molecular diagnostics. This collaborative approach reduces the likelihood of unnecessary testing and enhances diagnostic accuracy.

For a successful shift of care from hospitals to communities, a large proportion of diagnostic and monitoring tests that are currently primarily conducted within a hospital laboratory setting needs to be transferred to the community setting. Expanding diagnostic services through community-based initiatives and home testing solutions for chronic conditions takes the end-to-end pathway closer to the patient. This approach ensures equitable access to diagnostics for underserved and underrepresented communities, while maintaining consistency across the diagnostic phases. By integrating these services, healthcare systems can improve the reach and inclusivity of diagnostic care. Integration is essential for linking laboratories, clinicians, and patients in real-time, ensuring faster and more reliable access to diagnostic information. The key considerations for enabling fully integrated patient services are:

- **End-to-End IT Solutions:** Developing integrated IT systems that connect networks, laboratories, and healthcare providers enabling data sharing across multiple sites. This integration is critical for achieving faster turnaround times and improving patient outcomes. For example, digital platforms that allow for real-time tracking of samples and test results can prevent delays and streamline patient care.
- **Interoperability:** True connectivity requires systems that are interoperable, meaning they can communicate across various platforms and departments without disruption. This includes integrating laboratory systems with electronic health records (EHRs) and patient-facing apps, allowing clinicians to access diagnostic results as soon as they are available and enabling patients to view their own results securely.
- **Federated Laboratories and Regional Networks:** Integration efforts should extend beyond individual institutions to create federated laboratory networks that facilitate resource sharing, collaboration, and the ability to handle fluctuating diagnostic demands. Practices such as this are already established in countries such as Denmark, which allows patients to book blood tests from anywhere via an app, creating a fully integrated diagnostic service across the country. While we are seeing examples of this approach in the UK, such as in North Central London, further scale is needed to maximise the benefits of integrated diagnostics across the country.
- **Data Privacy and Security:** As integration expands, maintaining patient privacy and data security is paramount. Robust cybersecurity measures, including encrypted data transfer and secure authentication protocols, must be built into integrated systems to ensure compliance with data protection regulations such as GDPR.

With interconnected IT, diagnostic services become more responsive - allowing for faster diagnoses and a more seamless patient experience.

Q3. What does your organisation see as the biggest challenges and enablers to making better use of technology in health and care?

The NHS is one of the heaviest users of technology but lacks sufficient funding for new clinical, scientific and technological/digital equipment that could improve speed and efficiency. A major problem is the apparently random application of digital solutions – there are many different systems, often with poor connectivity. Employing consistent automation and AI-driven tools within and across laboratories can improve workflow efficiency, manage increasing diagnostic volumes, and prioritise urgent cases, reducing bottlenecks and enhancing patient outcomes.

The biggest technological challenge in healthcare is the absence of fully Connected IT Systems. The enabler for better health services is real-time, connected IT platforms that allow communication and data sharing between laboratories, clinicians, and patients, enhancing collaboration and reducing diagnostic delays. There are five key enablers to making better use of technology in healthcare:

1. **Standardisation as a Foundation:** Establishing uniform protocols and standards across diagnostic services to enable consistency and interoperability, which will streamline the integration of new technologies and data-sharing systems.
2. **Integrated IT Systems:** Developing real-time, connected IT platforms that allow seamless communication and data sharing between laboratories, clinicians, and patients, enhancing collaboration and reducing diagnostic delays.
3. **Adoption of AI and Automation:** Introduction of AI-driven tools and automation within laboratories, along with digital pathology solutions, to increase diagnostic accuracy, speed, and reduce the burden on healthcare professionals.
4. **Digital Transformation:** Promotion of the shift towards digital solutions, such as telehealth diagnostics and remote monitoring, to improve access to services and foster greater patient engagement.
5. **Workforce Upskilling:** Provision of targeted training and continuous professional development to equip healthcare professionals with the skills needed to adopt and effectively use emerging technologies like AI and digital platforms.

Implementing these innovations will create a diagnostic system that is faster, more accurate, and better equipped to meet future healthcare challenges.

Q4. What does your organisation see as the biggest challenges and enablers to spotting illnesses earlier and tackling the causes of ill health?

This response so far has focussed on the benefits and opportunities that the full and appropriate use of diagnostic laboratory services can bring to managing and improving patient health and care. While the technology exists to make possible the changes described, it cannot be achieved without the appropriate number of skilled and qualified staff to deliver these services.

Workforce will be one of the key enablers in all aspects of the delivery of the 10 Year Plan. One of the biggest challenges and enablers to the delivery of the Plan will be the better or different use of some staff and staff groups. To date, within the diagnostic laboratory services there has been limited recognition of an already existent regulated, post graduate workforce with the capability of expanding the genomics workforce to meet the needs of this key service. This workforce is that of biomedical scientists. Furthermore, with the exception of histopathology, there has been a somewhat limited use of this workforce to work in advanced clinical practice and consultant level roles within the other pathology specialisms.

From a workforce perspective the greatest innovation is the development of advanced clinical and consultant level practice biomedical scientist roles. This is one of the most powerful examples of forward thinking to meet the challenges posed by the increasing size of the older population and the resultant increase in complex co-morbidities, which are placing growing demands on healthcare services. It is disappointing that the expansion of biomedical scientist roles has not mirrored that of the nursing professions. Nevertheless, increasing numbers of biomedical scientists are now undertaking professional qualifications that enable them to work alongside medical pathologists as part of the pathology reporting team. The experience of more than 20 years of safe and effective advanced and consultant scientist practice in the cervical cytology screening programme and more recently in some histopathology laboratories is evidence that the biomedical scientist workforce is key to expanding the delivery of advanced diagnostic services. The support and encouragement of the four UK health departments to find safe but innovative means of utilising workforce skills to better deliver patient services should be acknowledged in this context. The biomedical scientist workforce should be recognised as one of the key enablers in the expansion of diagnostic laboratory services necessary to meet the increased workload that will be generated by more diagnostic testing on more patients at an earlier stage

Q5. Please use this box to share specific policy ideas for change. Please include how you would prioritise these and what timeframe you would expect to see this delivered in, for example:

- **Quick to do, that is in the next year or so**
- **In the middle, that is in the next 2 to 5 years**
- **Long term change, that will take more than 5 years**

	Actions
--	----------------

<p>Short-term</p>	<p>By addressing inefficiencies at every stage, healthcare systems can facilitate earlier diagnoses, improve patient outcomes, and build greater resilience to meet the growing demands of modern healthcare. This approach highlights the importance of streamlining end-to-end pathways, integrating real-time patient communication within each phase, and expanding access to diagnostics through community-based initiatives and home testing, ensuring equitable care for all patients.</p> <ul style="list-style-type: none"> • Standardised Sample Collection Protocols: Ensuring that all healthcare providers follow consistent, well-defined protocols for sample collection, labelling, and storage can significantly reduce errors. • Integrated IT Systems for Sample Tracking: Implementing real-time tracking systems for sample transport ensuring that samples arrive at the laboratory within the necessary timeframe, minimising delays. Such systems also allow for proactive troubleshooting in case of issues. • Regionalised Sample Collection Hubs: Establishing regional collection hubs can streamline transportation logistics, particularly in remote or underserved areas. These hubs could serve as centralised collection points, improving turnaround times. • Advanced and Consultant level scientist roles: Encouraging the widening of the scope of practice of existing regulated biomedical scientists to support medically qualified pathologists to safely manage the expanding diagnostic and reporting workload. <p>Within 1-2 years</p>
<p>Medium-term</p>	<p>Full bedding in of digital pathology, automation and data standardisation/interoperability.</p> <p>Increased diagnostic and reporting capacity through better use of highly qualified, regulated biomedical scientist staff to support the medically qualified pathologist workforce</p> <p>Within 5 years</p>
<p>Long-term</p>	<p>Development of AI to cover image detection and diagnosis, clinical decision support, testing cascades and workload prioritisation/stewardship.</p>

	<p>Fully interoperable reporting of all pathology test results to centralised databases, electronic patient records, federated data platforms and patient apps. Drive business intelligence, diagnostic stewardship and contingency planning.</p> <p>A shift to significantly greater use of biobased consumables and reagents as far as reasonably practicable to enable us to deliver a net zero NHS by 2040. These should be easily accessible via the NHS Supply Chain.</p> <p>Within 10 years.</p>
--	--