



Special Commission of Inquiry into Healthcare Funding

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Health
Pathology

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NSW Health Pathology – submission to Terms of Reference

NSW Health Pathology (NSWHP) is an administrative division of the Health Administration Corporation established for the purpose of exercising functions under section 126B of the *Health Services Act 1997*. It operates on behalf of the Health Secretary as the preferred provider and commissioner of pathology, and forensic and analytical science services for the NSW Health system. It is also Australia's largest public pathology provider and the largest statewide public clinical service in NSW.

NSWHP operates 65 accredited pathology and forensic laboratories, and 150 plus collections centres, including in regional and rural NSW. It performs over 100,000 clinical and scientific investigations every day to support the health, safety and wellbeing of the communities it serves.

Over 70 per cent of all medical decisions rely on pathology and the majority of cancer diagnoses start with a pathology investigation.

Its Forensic & Analytical Science Service (FASS) provides independent, objective analysis in a range of specialised fields for our state's health and criminal justice systems.

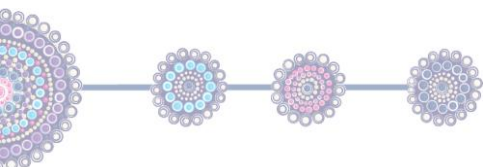
NSWHP employs a diverse and skilled workforce of over 5,000 people, comprising pathologists (medically qualified doctors), scientists, technical officers, technical assistants, pathology collection and specialist support staff. Over a third live and work in regional NSW.

It was established on 31 May 2012 to consolidate four separate and fragmented pathology networks which had varied operational and governance models, systems, policies, procedures, and processes. FASS also previously operated as part of a separate government agency for the health and justice systems.

NSWHP's functions are detailed in an Instrument of Establishment, and its powers are set out in a Delegations Manual signed by the NSW Health Secretary and published on the NSW Health website. The Delegations Manual was last reviewed in June 2023.

The NSWHP Board oversees the strategic direction and performance, and ensures good governance is in place. It includes senior representation from the Ministry of Health and other Health agencies, and independent members with extensive private and public sector experience.

The NSWHP Chief Executive is ultimately responsible for the operations and corporate governance practices of NSWHP.



As a statewide service, NSW Health Pathology is responsible for and committed to:

- delivering better health and justice systems through an integrated, whole of state model of service
- developing and implementing rigorous clinical and corporate governance frameworks that provide sustainable, responsive, efficient, high quality pathology, and forensic and analytical science services
- operating services with transparency and clear accountabilities, ensuring organisational performance and financial management meet the requirements of the Health Secretary
- providing teaching and training, and undertaking research and development relevant to the provision of pathology, forensic and analytical science services, and
- building strong relationships with NSW Health agencies, the Department of Family and Community Services and Justice, NSW Police and other key stakeholders and contribute to the achievement of NSW Government priorities.

NSWHP's role as a large employer of scientific and medical teams in pathology and forensics and the development of our future workforce is critical. Like many clinical services, NSWHP also has areas of workforce shortages that place additional strain on our current teams.

There are a range of initiatives that will be crucial to the sustainability of this critical workforce, such as Award reform and training and development programs to not just maintain currency of practice, but support the evolving needs of the systems and communities NSWHP serves.

NSWHP welcomes the opportunity to discuss how these outcomes might be achieved and the benefits that would come from improved and future-fit support of our highly skilled and valued teams.

Proven track record as accountable, transparent and credible stewards of public funds delivering system-wide savings

NSWHP operates on a balance of State and Federal funding. NSWHP would welcome the opportunity to discuss future funding models that could be better aligned to:

- new and evolving healthcare needs – including increasing demand, growing and aging populations, and the rise in the number of people living with multiple complex conditions across the state
- creating laboratories and models of care of the future with modern capital and digital infrastructure aligned to evolving local Clinical Services Plans
- provision of new care models that reduce hospital admissions and support prevention and better care in the community
- adoption of clinical, scientific and technology advances including the emerging capabilities in data analytics, automated platforms and artificial intelligence

- ensuring retention and sustainability of our specialist clinical and scientific services and highly skilled, dedicated workforce.

NSWHP has introduced a range of strategic statewide initiatives and reforms to enhance integration, capitalise on economies of scale, and deliver efficiency savings to NSWHP and the broader health system.

From 2015/16 through to 2022/23, NSWHP has been able to deliver over \$300 million in savings to its customers by holding price increases below the Consumer Price Index, which has been achieved by absorbing activity growth into its statewide operating structures and implementing ongoing efficiencies.

Efficiency strategies include, but are not limited to:

- renegotiation of contracts to standardise pricing and procurement, which helped reduce equipment and contract management costs, and spending on consumables
- removal and reduction of unnecessary duplication and waste through streamlining and standardising systems, processes, procedures
- using data and clinical advice to help reduce unnecessary ordering of pathology tests and improve patient care
- workforce programs to support safety and wellbeing leading to lower sick leave, overtime and workers compensation rates
- transitioning to a statewide billing platform and improved debt collection, and
- statewide transport and logistics optimisation.

In addition to returning savings to the broader NSW health system, NSWHP has also been re-investing in ongoing efficiency and service improvement strategies, such as:

- statewide tenders to implement standardised, automated testing platforms and technology in chemistry, transfusion, haematology and more
- creation and implementation of a single digital forensic medicine information management system
- co-design, build and roll-out of statewide solutions including an electronic specimen tracking system, and an electronic pathology test catalogue for staff and referring clinicians
- future-ready laboratory redesign and redevelopments including modern capital and digital infrastructure
- expansion of modern point of care testing technology improving real-time care and outcomes, particularly for rural and regional communities
- introducing molecular microbiology testing to metropolitan and regional laboratories, with rapid molecular testing devices at most sites.

Governance and accountability to ensure safe, high quality services

Operating as a single statewide integrated service supports the delivery of safe and high quality clinical and scientific services, and provides enhanced agility to continuously redesign and improve services as health and forensics' needs change. This has included:

- Establishing a centralised statewide clinical governance function and framework, including monitoring and benchmarking, to enable more efficient and effective organisational standardisation and optimisation of quality and safety, and support a strong safety culture to ensure equal access to better patient care and outcomes.
- Leveraging its statewide service model with a centralised governance and accountability structure to deliver a rolling program of reform strategies that ensure:
 - delivery of high quality, timely and reliable services matched to local evolving population needs
 - a more efficient, productive and sustainable workforce
 - reduction and removal of unnecessary duplication and waste to drive greater efficiencies, sustainability and savings
 - robust and regular monitoring of finances and service delivery performance with improved transparency of reporting
 - more effective and efficient procurement processes and practices offering cost savings and increased supply chain reliability
 - improved business continuity planning, and sound audit, compliance and risk management practices, and
 - an agile operational decision-making model to improve services and respond to emerging needs of the system and local communities.
- Streamlining and centralising corporate support service comprising ICT; Finance and Corporate Services; Corporate and Clinical Governance; People and Culture; Research; Strategy and Transformation; Strategic Communications and Emergency Management, has also created efficiencies and improved the quality, productivity, accountability and transparency of the statewide service.
- Statewide discipline-based clinical engagement forums that ensure timely reviews of emerging science and technology, currency of practice and implementation of improved statewide standards, policies, procedures and processes. These clinical communities of practice were immensely valuable during the COVID-19 pandemic with agile collaboration and decision making across NSWHP, Local Health Districts (LHD), MoH Public Health and other health pillars.
- While NSWHP operates under a centralised statewide governance structure, it also ensures there is a strong focus on effective partnership linkages with each LHD, NSW Health and the local communities it serves. An annual Statement of Service between the Health Secretary and NSWHP sets out the overall service delivery and performance

obligations of NSWHP, and annual Customer Charters with each LHD detail the local service requirements, expectations, and pricing arrangements.

- Being a statewide clinical service that works in partnership and alignment with every LHD, NSWHP is in a unique position to deliver the benefits of standardisation, while tailoring where needed for local need. This model has demonstrated significant value to the system and has broader applicability.
- NSWHP would welcome a discussion on how governance and accountability could be further strengthened to improve equity of access and delivery of efficient and effective clinical and diagnostic services for the people of NSW.

Enabling, innovative partner to the public system

NSWHP partners across the health system to enable the delivery of safe, high quality care for the people of NSW. As a statewide service that touches every LHD, NSWHP is a critical enabler of emerging clinical and scientific practice. NSWHP:

- has a dedicated statewide Public Health Pathology service to provide specialist, timely advice and testing for NSW Health that is critical to disease and outbreak detection, planning and responding to emerging diseases and pandemics, and research and education. This is supported by NSWHP's expert pathogen genomics service enabling rapid tracing of outbreaks in hospitals and the community. NSWHP also operates the only PC4 containment laboratory in NSW, conducting safe investigations of deadly pathogens such as Ebola and SARS-2-CoV.
- offers an exome sequencing service and performs diagnostic testing for inherited diseases and cancer predisposition that is closely integrated with the clinical genetics services they support. Cancer genomics testing capability to support accurate diagnosis of cancers and ensure access to targeted therapeutics is being further enhanced, and the service is participating in a landmark national study (PrOSPeCT) to identify opportunities for patients with advanced and life-threatening cancers to access cutting edge clinical trials.
- manages and operates a statewide point-of-care testing (POCT) service, the largest of its kind in the southern hemisphere. This has and continues to deliver technological capability to process samples at the patients' point of care in minutes rather than being transported to a lab for testing. It informs faster clinical decision-making and improves patient care, outcomes and experiences. For regional and remote communities, access to POCT has been transformative, specifically for patients requiring urgent diagnostic care and triage decisions. When patients are suspected of having a heart attack or sepsis infection, POCT can be lifesaving.
- Forensic & Analytical Science Service (FASS) provides expert scientific analysis to NSW Health to inform community alerts about harmful substances and to support the treatment of critically ill patients presenting to emergency departments.

- provides highly specialised and complex services are also offered through other statewide models, including the perinatal post mortem service and non-coronial post mortems, helping grieving families receive the answers they need.
- senior medical staff provide direct clinical care to patients and are integrated into the medical communities of the hospitals at which they are based, in addition to providing diagnostic services.
- delivers vital training and education for the future medical and scientific workforce including specialist training programs in all pathology specialties (Anatomical Pathology, Chemical Pathology, Haematology, Immunology, Genetic Pathology and Microbiology). It is the largest contributor to registrar training in Australia.
- has strong partnerships with TAFE and universities, and regularly provides advice regarding curricula and offers student placements and traineeships. Many senior NSWHP senior staff hold conjoint appointments with universities and contribute to teaching and research conducted by these partner organisations.
- operates the NSW Health Statewide Biobank on behalf of NSW Health's Office of Health and Medical Research Institute, which is a state-of-the-art storage facility for biospecimens – tissue samples, tumour cells, DNA and blood samples. This provides important connections and collaborations with the research community supporting translational research to help improve the health, safety and lives of our communities.
- also supports clinical and other research programs of its LHD and forensic partners, and collaborates with their researchers and with those of partner universities and medical and scientific research institutes.

Vital partner in NSW's response to the global COVID-19 pandemic

NSWHP's expertise, agility and adaptability as a statewide service throughout COVID was vital to the state's response and helped protect the lives of our communities across the state including in remote and rural communities.

Leveraging its statewide expertise and capabilities, NSWHP:

- developed the first diagnostic PCR tests in Australia on 25 January 2020 and performed 7.8 million PCR tests between January 2020 and August 2022, including performing tests on behalf of private providers during surge periods.
- grew the SARS-CoV-2 virus in its PC4 containment laboratory from infected patients' samples and distributed this across Australia as the reference material for assay validation studies.
- performed rapid real-time whole genome sequencing for cases informing the cluster, outbreak and virus variant detection and evolution across NSW.

- quickly adapted its PoCT network to accommodate rapid testing platforms so contact tracing and patient management could be expedited.
- developed and initiated the first direct to patient COVID-19 SMS notification service in April 2020 and created the digital patient results portal and the vaccination and COVID-19 status 'smart card'.
- performed 1.04 million COVID-19 saliva screening tests for hotel quarantine, airport and transport workers between December 2020 and December 2021.
- established the most comprehensive and specific COVID-19 serology assay in Australia that informed the progress and timeline of confronting outbreaks, such as the Ruby Princess and Dorothy Henderson Aged Care, and indicated the viability of vaccine- and infection-induced immune response.
- supported testing of 15,000 HSC students whose access to exams appeared compromised by the large Western Sydney outbreak.
- provided rapid COVID-19 testing to regional hospitals improving time to results for clinicians and patients and provided testing for remote NSW Aboriginal communities.

Critical to the industry and market

NSW Health Pathology delivers value not just to the system, but is also critical to the industry and market. It:

- operates with strong strategic alignment with its partners across the public health and justice systems, and regularly collaborates and reinvest savings in the broader system
- supports a diverse, skilled and dedicated workforce including over 30 per cent of whom live in regional NSW
- helps ensure Australia maintains a competitive marketplace for pathology, particularly given consolidation in the private sector
- provides access to highly complex and/or low volume diagnostics essential to the health and safety of patients, which it often performs on behalf of private pathology providers for a recovery fee
- delivers critical onsite 24/7 support for Emergency Departments, Intensive Care Units and specialised complex care functions such as neonatal transfusion
- has the capabilities to develop highly specialised assays in response to emerging public health threats such as SAR-CoV-2 and M-pox
- is committed to ongoing investment in research, innovation and new and novel testing that can also be shared with public pathology providers across Australia

- collaborates with and reports to internationally recognised health and forensic organisations such as the World Health Organisation and the International Association of Forensic Sciences
- is a leader in education and training, including the delivery of Australia's largest anatomical pathology training program for which there is a global workforce shortage.

Invested in continual improvement, innovation and sustainability

NSWHP is a leader in bringing new clinical, scientific and digital innovations into practice. It has an important place in supporting the design and delivery of future models of care and forensic services that leverage research and innovation including advances in science, automation, digital technology, AI and data analytics.

NSWHP would welcome the opportunity to explore the roles it can lead in this space.

NSWHP also has a range of current and future strategies to further address escalating costs, limit wastage, minimise overservicing and further improve financial and operational management to create and deliver future-ready services.

Work has commenced to create this new future including, but not limited to:

- Clinical Service Planning to create a statewide 2035 blueprint to co-design our laboratories and service models of the future that accounts for innovation in science, data and technology; workforce and financial pressures; modern capital and digital infrastructure; and evolving clinician and community needs and expectations.
- Work in partnership with LHDs to co-design new models of care that transform the delivery of healthcare and meet new and future patient needs by leveraging emerging digital health technology, real-time data analytics, generative artificial intelligence and more.
- Build and implement a single statewide laboratory information management system (LIMS) as part of NSW Health's Single Digital Patient Record in partnership with eHealth to replace the existing fragmented nine electronic medical record systems, five patient administration systems and four pathology LIMS. This digital transformation will provide vital statewide integration and connectivity that has never been possible in the NSW public health system and will improve equity of access and ensure continuity of care for better patient outcomes.
- Develop and implement a single statewide digital quality management information system to drive greater efficiencies and improvements in safety and quality for our workforce, customers and communities including patients.
- Expand NSWHP's virtual care services working with LHDs and other health providers to support the shift to the provision of safe, equitable, quality care in the community across the state, as NSWHP already demonstrated through its agile response to COVID-19.

- Continue to expand point of care platforms to provide timely pathology results to communities without access to a local laboratory.
- Co-design and delivery of a statewide digital e-reporting solution to deliver more timely, reliable pathology results and reports to referring clinicians providing care in the community, including GPs.
- Trial and adopt cutting edge digital technologies to ensure equitable statewide access to specialist pathology expertise, further increase automation to ensure rapid turnaround times for acute services, and drive increased efficiencies in performance and reporting with generative automated intelligence.
- Further leverage its digital expertise to ensure clinicians and, in future, patients have timely access to results when they need them, and to enhance communication of high risk and critical results using NSW Health Pathology's PathWorks app.
- Maximise NSWHP's data and evidence-based clinical decision-making tools for appropriate pathology ordering practices to help referring clinicians minimise unnecessary and duplicative testing, better aligned with local Clinical Service Plans, and to improve patient care and experiences.
- Complete implementation of a new centralised digital statewide billing service replacing four legacy systems to standardise and improve timeliness, compliance, customer experience and reporting.
- Transition to a statewide pricing system that will underpin greater transparency and accountability for LHD partners and the system. A considerable body of work to understand the true costs of performing each test (activity-based pricing) has already been undertaken.
- Further enhance the effectiveness and efficiency our statewide logistics network including through trial and adoption of emerging technology such as drones.
- Build on its existing risk management and compliance frameworks to ensure that the services it delivers are ethical, accountable, reliable and comply with all regulatory requirements.

NSWHP welcomes the opportunity to further detail its valued role in NSW Health and the opportunities that avail through this model to create improved health outcomes and patient experience for the people of NSW.