

Lessons from NSW Health Pathology: Productivity, Control and Performance

Productivity gains in the non-market sector

February 2024





Executive summary

The human services sector is a large and growing portion of our economy and society, much of which is delivered by government. Governments need information and tools on how to continue to meet community expectations while managing cost growth. The reform of NSW Health Pathology delivered tangible benefits by empowering frontline senior managers with the right levels of responsibility and incentives. This reform provides valuable insights for driving improved productivity in publicly-funded service delivery.

Context

- Historically, pathology services in NSW were provided by hospital-based laboratories, some managed by private firms. In 2007, individual services were rationalised into four regions, each supporting multiple hospitals and Local Health Districts (LHDs). Despite improvements, performance, costs and productivity varied from region to region.
- In 2012, the Secretary of NSW Health sought to respond to challenges in the sector including: perceived inefficiency and costliness; lack of transparency with LHDs; the impending introduction of national activity-based funding for hospitals; concerns about regional and rural access and efficiency; and workforce challenges.

Reform

- A business case was developed that advocated for a new state-wide organisation – NSW Health Pathology – to drive reform and address challenges. Over the next ten years, operational and organisational reforms led to significant improvements to productivity, quality and safety, underpinned by:
 - Professional and stable leadership
 - A "startup" mindset and conditions
 - The right level of responsibility, authority and organisational boundaries
 - A culture of performance management

Performance

- Over the ten years since the reforms, the reforms have been associated with notable upticks in performance:
 - A more than 22% improvement in productivity of pathology testing
 - Returning \$280m in savings to Local Health Districts
 - Improvements in quality and safety while maintaining turnaround times.



Performance improvement highlights

The reform of NSW Health Pathology has delivered improvements in many domains over the reform period, including productivity (output per hour worked), savings for Local Health Districts and safety, while maintaining quality. These improvements are most easily quantifiable over the period 2015/16 to 22/23.

Productivity Gains



- NSWHP delivered more than **22% increase in productivity** (activity / hour worked)
- Productivity was even higher in regional and rural areas, up 27%.
- NSWHP processed 24% more pathology requests, while staff FTE grew by 10.5% overall.

Savings for LHDs



- NSWHP returned around **\$280m in savings to Local Health Districts** (2023 terms)
- NSWHP reduced total charges to LHDs by 14% in real terms
- Savings in regional and rural areas were even higher, with a 19% reduction in charges in real terms.

Sources of Savings



- NSWHP **reduced spending on goods and services by 14%** in real terms through better procurement.
- NSWHP **reduced over-ordering** of potentially-duplicative tests.
- NSWHP made other gains in **reducing sick leave** and **workers compensation claims**.

Safety and Quality



- NSWHP **reduced Harm 2 incidents by 39%** since 2018/19, with Harm 1 incidents low and stable.
- Independent assessments of **laboratory quality have improved** since 2019.
- **Turnaround times have been maintained**, with increases in some categories and decreases in others.



Overarching lessons for public delivery

The NSW Health Pathology case leads to a series of lessons for similar reform contexts in the key domains of leadership, startup conditions, responsibility and control, and performance. Some overarching lessons have also emerged to guide future reform and operational performance enhancement.

Take a fresh start

- Governments can create the conditions for operational success by **periodically challenging the senior management** to respond with a formal business plan to deliver specified outcomes. A fresh start enables government to specify results to meet contemporary challenges, allocate the necessary resources, revisit the business model and clarify the authority of operational managers.
- Appointment of a new chief executive, and formal endorsement of a new business plan that has been developed by operational managers, gives them a **sense of ownership and obligation**, and a strong mandate for reform.
- The CEO plays a vital role in creating a vision, developing the business plan, recruiting and inspiring a new leadership team and setting culture.

Drive transparency and performance management

- Service improvement needs performance standards, relevant and timely information, and an effective intervention regime directed to service improvement.
- Performance agreements, signed by both sides, can be a powerful tool in driving sustained improvement over time to achieve stretch targets. Benchmarking can be an alternative to competition, to assess the performance against peers and to identify best practice.
- Both kinds of performance management require notable investment in systems and capabilities.

Empower leaders with ownership and control

- Service managers must have effective control over the resources necessary to deliver the performance objectives. This might involve organisational redesign, revisiting the level of responsibility for budget and investment, and the nature of delegation and accountability.
- Human services are about people, and the key to highly effective delivery lies in operational managers who are authorised and motivated to develop and inspire their team.
- Effective organisational redesign might involve the creation of larger delivery agencies, but in some cases, it might mean reinforcing the authority of service managers closer to clients or service beneficiaries.

Context for reform





Introduction

The Susan McKinnon Foundation and Prof Gary Sturgess have partnered to document and share insights from the establishment and reform of NSW Health Pathology (NSWHP).

Susan McKinnon Foundation

The Susan McKinnon Foundation is focused on strengthening Australia's democracy. We incubate, deliver and support practical improvements to help Australia achieve a more fit-for-purpose political, policy and service delivery system. Our goal is for governments to be more transparent, accountable and inclusive. Our work is motivated solely by the long-term public good. Our approach is non-partisan and is undertaken in cooperation with all sides of politics.

The foundation's initiatives include the McKinnon Prize for Political Leadership and the McKinnon Institute. It was founded by Sophie Oh and Grant Rule.

Prof Gary Sturgess

Gary Sturgess is an academic and former senior public servant with deep experience in the commissioning of public services.

He was Executive Director of the Serco Institute, a UK-based think tank specialising in public service markets, and from 2011 to 2022, he held the NSW's Premier's Chair in Public Service Delivery at ANSZOG, specializing in commissioning.

NSW Health Pathology

NSW Health Pathology is a statewide public pathology service in the Australian state of New South Wales, which undertakes testing for the clinicians working with patients in the public hospital system, as well as testing for infectious diseases, and undertaking genetic and genomic tests for hereditary conditions.

NSWHP was established in November 2012 as an 'Administrative Division' of the Health Administration Corporation, vested with certain of the Health Secretary's service provider functions. It became operational in early 2013.

SMF and Gary Sturgess have partnered to document the establishment and reform of NSW Health Pathology (NSWHP) and identify lessons for other public services. This document shares those lessons. It's informed by detailed interviews with people who were involved in the design and implementation of the new approach and the detailed analysis of performance and administrative data.



Context

Human services are a large and growing portion of the economy and will continue to grow as our country becomes more prosperous. NSW Health Pathology (NSWHP) provides a case study on how reform of organisational design and management can deliver productivity improvements in the non-market sector.

Human services like health care, education, aged care, disability support and correctional services are increasingly important to Australian society and make up a growing proportion of the economy.



Governments across Australia are grappling with how to meet the growing demand for these services, in the context of a tough economic climate and budget deficits.



Human services are reliant on the motivation and engagement of people, and the key to reform lies with front-line managers. However, studies of successful frontline reforms are rare.



The NSW Health Pathology case study, based on detailed interviews with 24 participants and analysis of best-available data, provides an example of how to empower managers to deliver better public services.



NSW Health Pathology Case Study – Context

Historically, pathology services were provided by hospital-based laboratories, some managed by private firms. Each hospital had its own approach and terminology for testing and categorising activity.

In 2007, NSW adopted a four-region model for pathology services, each supporting multiple hospitals and Local Health Districts (LHDs). Corporate and financial management services were largely provided by LHDs.

In 2012, the Secretary of NSW Health sought reform options to respond to challenges in the sector including: perceived inefficiency and costliness; lack of transparency with LHDs; the impending introduction of national activity-based funding for hospitals; concerns about regional and rural access and efficiency; and workforce challenges.

In 2013, the regional system was augmented by a statewide organisation called NSW Health Pathology, initially responsible for strategy direction, benchmarking and standardisation. In 2017, the four networks were subsumed into NSW HP.



Four key pillars of success





Leadership

The NSW government's creation of the conditions for leadership success, the installation of professional senior managers, and the impact of leadership continuity were key to NSWHP's success.

Leadership conditions 	Professionalism 	Continuity 
<p>NSW Government created the conditions for successful leadership to flourish</p>	<p>The appointment of professional managers was initially difficult for clinicians to accept but proved correct.</p>	<p>A striking feature of NSWHP's success is the longevity of its senior leaders, including 10 years with the same CEO.</p>
<ul style="list-style-type: none">• NSW Health drove a reform process that called for new ideas and a new business model in the face of challenges.• NSW Health created a new organisation, built on existing regional networks, which enabled a leader with relevant expertise to step into a bigger role.• The founding CEO, was an accountant with a history in pathology services.• Her experience as a business manager gained her support from NSW Health, Treasury, and LHDs. Her financial skills enabled trust in a long-term reform process rather than managing to annual budgets.	<ul style="list-style-type: none">• The challenges of establishing NSWHP including pulling together a state-wide organisation with a budget of half a billion dollars (in 2013) and setting up complex IT systems, required professional managers.• Pathology delivery is as much reliant on operational excellence as high clinical standards. The senior leadership team had strong operational management experience and drew on pathologists with management backgrounds.• Relatively few clinicians have the interest or expertise for the suite of tasks of managing a large pathology service.	<ul style="list-style-type: none">• It is rare in public sector contexts for the CEO and senior team to remain in role for extended periods.• The CEO was with NSWHP for ten years. The director of strategy was with NSWHP for seven years before recently returning as CEO. Other senior executives held leadership roles in the regional networks that were subsumed into NSWHP.

Key Leadership Lessons

1. Leadership matters, and the creation of the conditions for the right leader to emerge and the emphasis on professional management skills are critical factors.
2. Stability of leadership leads to results over the long term, when paired with the right leader and leadership team.



Startup conditions

In important ways, NSW Health Pathology was a ‘start-up’, and management benefitted from the energy which drives successful new enterprises in their early years.

Strong Mandate

- Having developed the business case for a state-wide model, received a funding advance and been appointed as founding leader, the CEO had a **strong mandate to realise the NSWHP organisation**.
- The creation of a new organisation, rather than reforming an existing one, is a **mandate that few operational managers in the public sector receive**.

New Leadership

- The CEO and senior team had no responsibility for what had gone before. Creating a new organisation enabled the **appointment of a new leadership team** who were committed to the new organisation and strategy.
- The leadership engaged heavily with existing staff through over 90 workshops across the state to create a **new strategic plan** with internal buy-in.

External Challenges

- LHDs had been **actively considering outsourcing pathology** services, and there had been some discussion in government selling the organisation as a whole.
- National Health Reform Agreement was driving activity-based funding to **improve transparency and efficiency in hospitals**, incl. pathology.
- These external challenges help to explain the drive for reform.

“It wasn’t just the fact that I knew [the business case] – that was important because I was confident when people tested it and questioned it – but I became really passionate about the good it could do. . . leaning forward and telling everyone that this is the greatest thing out. I think that had an impact on the people I was recruiting. . . It was because I owned it.”

- Tracey McCosker, Founding CEO of NSW Health Pathology

Key Startup Lessons

1. When significant reform is sought, create a break from the past with a new management team committed to a new approach.
2. Structural external challenges guide and shape the organisation’s purpose and goals, and can underpin a focus on success.



Authority and control

Establishing NSWHP involved the deliberate choices to move to a state-wide model from regional units, remove management control from LHDs and creating an independent executive agency with clear purpose.

Delegation



- Establishing NSWHP as an executive agency 'separate from a department for staffing, accountability and reporting purposes' brought significant benefits.
- This "business unit" approach enabled both an administrative environment and culture of:
 - charging LHDs for services to create a customer relationship,
 - strong delegation to management and accountability for performance delivery,
 - long-term budgets, user and capital charging and reinvestment
- These features were critical to the success of NSWHP.

Specialist provider



- Pathology was previously one of many services delivered in hospitals, often considered a "back office" function.
- Creating a specialist provider elevated the status and visibility of pathology services.
- Distinguishing pathology services and costs from other LHD activity enabled benchmarking and dedicated management to drive up performance.
- However, changes were undertaken to maintain and support the vital relationships between NSWHP and LHDs.

New boundaries



- Moving from regional networks to a single state-wide organisation over time was a critical success factor.
- For NSWHP, only a state-wide organisational unit could deliver many of the benefits, including:
 - Standardised and interoperable business processes (particularly valuable during COVID)
 - Game-changing information management and IT systems
 - Higher-volume procurement
 - Internal benchmarking and comparative performance management to underpin improvement

Key Responsibility and Control Lessons

1. Choose the span of control carefully to enable leadership to have meaningful levers over operations and realise the benefits.
2. A singularity of purpose and balanced tensions between quality and efficiency, for example through the transparency afforded by benchmarking and fee-for-service approaches, produce optimal operational outcomes.



Performance

In the absence of market competition or the discipline which the risk of commercial failure would bring, NSWHP constructed a performance culture for the organisation, based on service level agreements with the Ministry of Health and with LHDs, and a comprehensive system of benchmarking.

Benchmarking



- Performance benchmarking is a foundational element of the NSWHP approach, established over a decade. It underpins overall performance and challenges underperformers to move to the mean.
- NSWHP has established performance management of LHDs, laboratories and departments including:
 - Test efficiency, including activity by staff and turnaround times according to national standards
 - Ordering patterns and waste
 - Clinical variation
 - Quality and safety
- Results are reported to management, staff and customers through scorecards, dashboards and performance reports.
- NSWHP is also a leader in interstate benchmarking.

NSWHP benefits from a broader culture and institutions of performance management – medical science is supported by clear regulatory and clinical standards and a disposition towards measurement and analysis. NSWHP works with national organisations such as NATA (laboratory standards), RCPA (standardisation of testing terminology and counting) and PPA (interstate benchmarking) to progress clinical and operational aspects of performance.

Performance Agreements



- NSWHP has performance agreements with both the Ministry of Health and with its customer LHDs.
 - Customer charters with LHDs define responsibilities, turnaround times and charges, and drive day-to-day performance and activity.
 - Service compacts / statements of service with the Ministry of Health (a function of National Health Reform Agreement) define access times in metro and rural regions, quality and patient-centricity targets. Many of these were already in place prior to being required by the NHRA, but are effective nonetheless.
- Having “double-sided” performance and service agreements with both its customers in LHDs and “owners” in the Ministry of Health drive NSWHP’s culture of operational excellence.

Key Performance lessons

1. Performance management culture is key, which is a function of both the organisation, its leadership and its broader context
2. Both “owner” and “customer” agreements can be used to maintain the incentives for ongoing performance improvement.

Tangible improvements over time





Productivity

The productivity of NSW Health Pathology testing has improved by more than 22% in the seven years of reform to 2023, as measured by the number of requests processed per hour worked.

More tests with relatively fewer staff

NSWHP processed 11.1 million pathology requests in 22/23 (up 24% since 2015/16). Volume growth was driven by population growth, ageing and a greater proportion of more complex conditions.

NSWHP activity was delivered by a full-time equivalent workforce of 3,950 people in 2022/23 (up 10.5% since 2015/16 overall, with a 4% growth in front-line pathology staff).

Higher Productivity

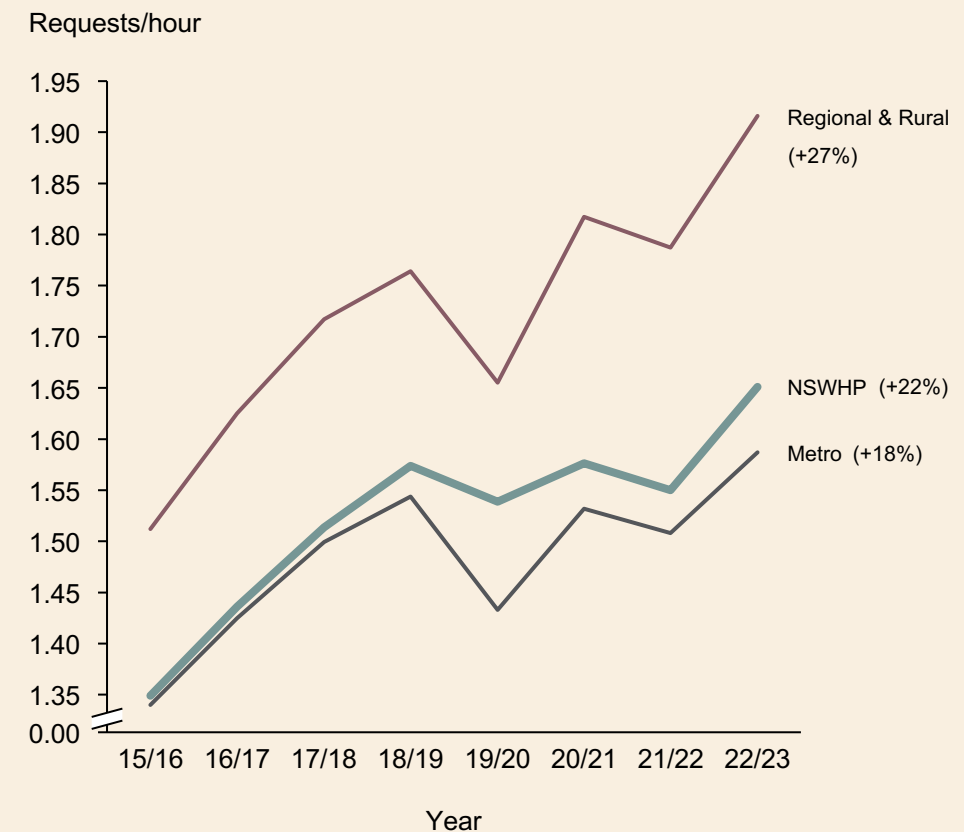
As a result, NSWHP delivered a 22% increase in productivity (request activity per hours worked) over this period. Improvements in Regional and Rural areas was even higher, at 27%.

Since 'activity' does not account for complexity, and since the complexity of some tests has increased over time, this also underestimates the actual improvement.

Notes:

- COVID testing and associated FTE have been removed from these numbers, explaining the drop in activity in 2019/20.
- The Forensic and Analytical Science Service (FASS) accounts for approximately 2% of NSWHP activity and has not been part of the NSWHP reforms. It has not therefore seen the same gains in productivity and is excluded from analysis.

NSW Health Pathology Annual Productivity by Region, 2015/16 to 2022/23
Pathology Request Activity/Hours Worked (excluding FASS and COVID Activity)





Savings for Local Health Districts

NSWHP reduced total charges to LHDs by 14% in real terms over the seven years to 2022/23, saving Local Health Districts \$280m in 2023 dollars.

Reduced charges

NSWHP levies annual charges to each LHD based on reported activity. Over the period 2015/16 to 2022/23, charges declined 14% in real terms across NSW. Regional and Rural charges declined by 19%.

Further savings

Savings passed on to LHDs since the establishment of NSWHP have been even higher, since this analysis does not include the first three years of operation, when prices were fixed in real terms.

Reinvestment

Productivity savings were reinvested in a variety of other ways – to repay an advance of \$3m from the Ministry of Health to establish corporate support functions when NSWHP was originally created, and by way of working capital on a variety of new initiatives over time.

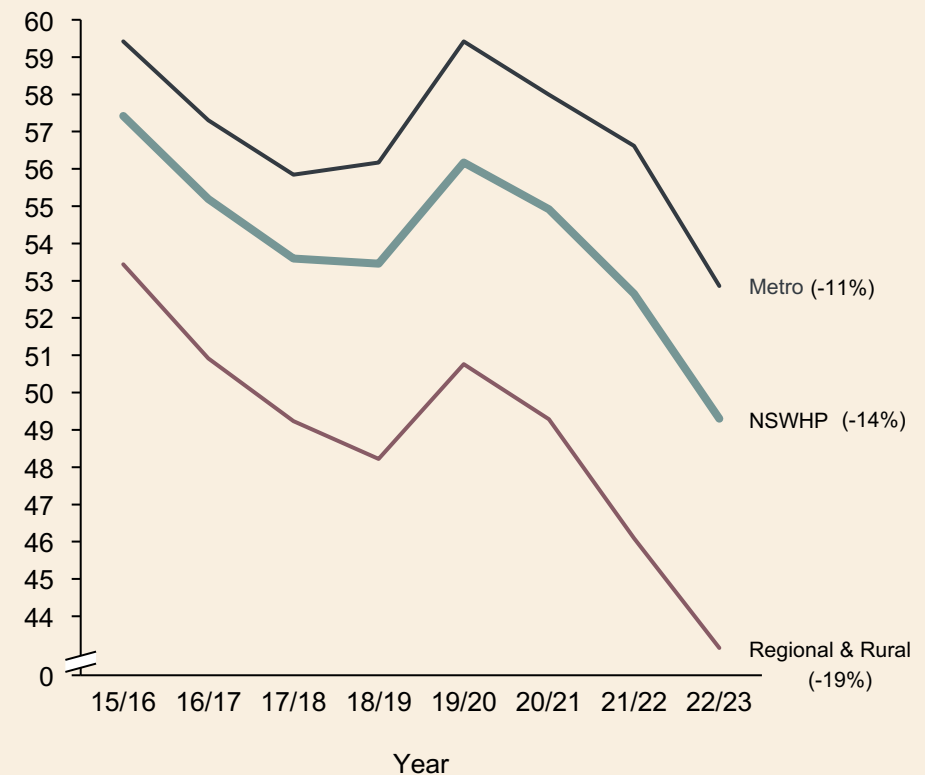
Notes:

- COVID testing has been removed from the activity numbers, but COVID also had an impact on other activity, which decreased by 2% in 2019/20 and by 1.4% in 2021/22, after consistent increases in the previous years. In the absence of the pandemic, the savings passed on to LHDs could have been significantly more.
- The ratio of public and private patients has also changed in the period since 2015, due to factors beyond the control of NSWHP. If these changes had not occurred, charges to LHDs could have fallen even further.

Total LHD Charges per Activity by Region, 2015/16 to 2022/23

LHD charge per request activity, 2015 dollars (excluding FASS and COVID Activity)

Charge / request, \$





Sources of savings for NSW Health Pathology

NSWHP has made significant savings through procurement efficiencies, workforce profile changes, reducing workers compensation claims and smaller one-off initiatives. Additional savings have been made through reducing over-ordering and sick leave reduction.

Procurement

Over the seven years to 2022/23, NSWHP reduced spending on goods and services through better procurement by 14% in real terms.

Workforce Profile

NSWHP has changed its workforce profile to deliver savings. Use of less costly Technical Assistants, increased from 22 to 26% of the workforce, while the highest paid groups (medical and scientific workers) fell from 29 to 27% of workforce.

Workers Compensation

NSWHP saw a 48% decline in workers compensation claims since 2013/14. Against an 10.5% growth in FTE and an upward trend in claim numbers across the health sector, this strong result saw a premium discount of \$5.6m.

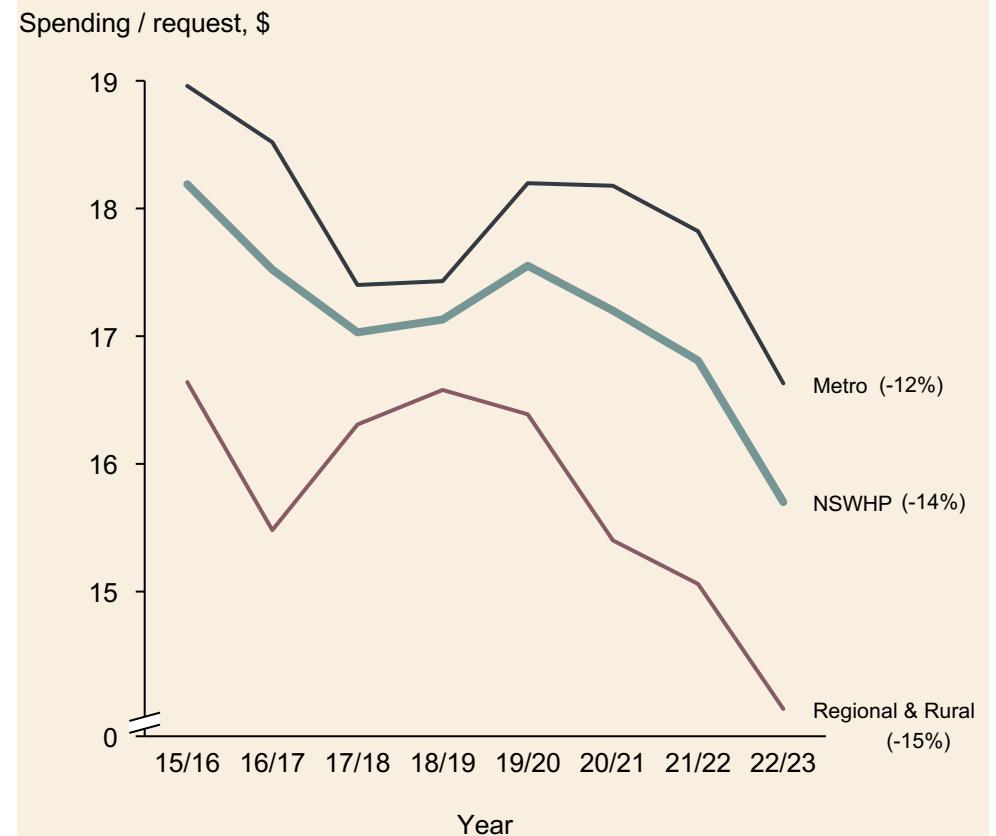
One-off Initiatives

Since 2013/14 NSWHP has reported \$203m in savings through Efficiency Improvement Plans; \$68m through one-off measures and \$135m in other measures. Against total expenditure of \$6.6bn over the period to 2022/23, this represents a saving of 3.1%.

Other savings:

- Ordering Practices: The NSW Pathology Atlas of Variation Program highlighted overordering in Emergency Departments and ICU, with information passed on to LHDs. A 2020/21 pilot program across 11 labs saw performance reporting and a more responsive pricing structure reduce overordering: 54% of test requests included a potentially duplicative request for both LFT and EUC testing, compared to 80% for labs not included in the pilot.
- Sick Leave: Pre-COVID, the rate of sick leave recorded as a share of total hours worked has declined since 2013/14 (by up to 1.2 percentage points in regional and remote areas). These gains largely disappeared from 2020/21, due to the impact of COVID.

Spending on Goods & Services per Request by Region, 2015/16 to 2022/23
LHD charge per request activity, 2015 dollars (excluding FASS and COVID Activity)





Safety and quality

NSWHP has maintained or improved service quality and safety over the period of reform, with reductions in clinical incidents, improvements in accreditation quality and generally maintained turnaround times.

Clinical Incidents

Harm 2 incidents have fallen by 39% since 2018/19 and Harm 1 incidents remain very low (0 or 1 each year, with an uptick in 2022/23 which is not repeated in 2023/24). Since 2018, total clinical incidents (Harm 1 to 4) have increased by 35%, the result of a shift to a quality management framework, which actively encourages notification.

Accreditation

In the period since January 2019, there has been an improvement in laboratory practices. Laboratory high-risk non-compliant (HRNC) practices are assessed against national standards via inspection by the National Association of Testing Authorities (NATA).

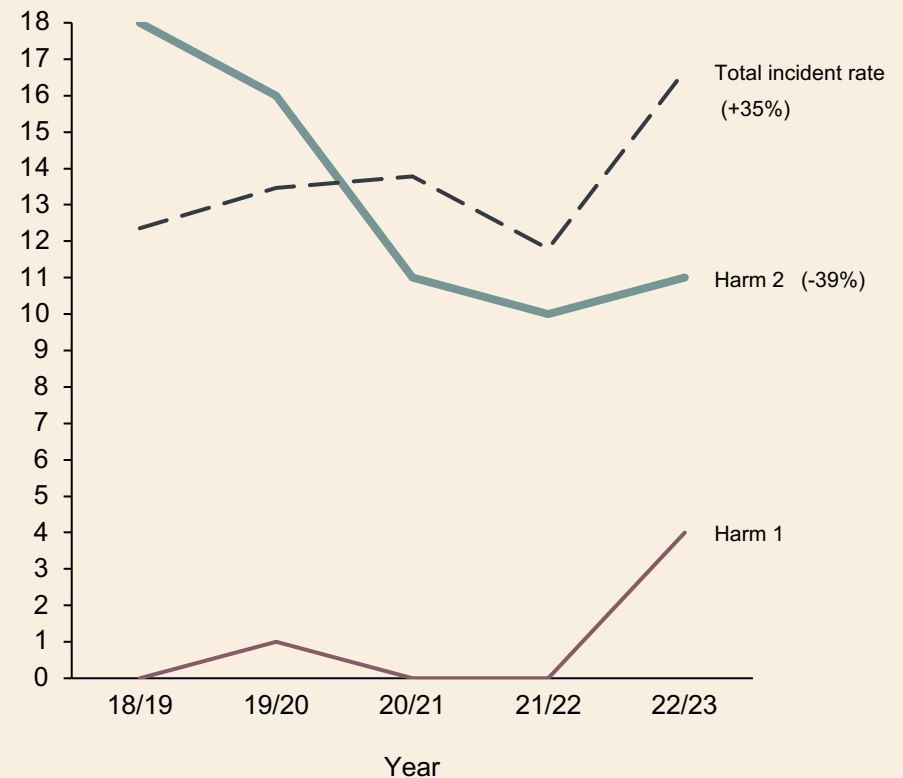
Turnaround Times

Turnaround times have been maintained, with increases in some categories and decreases in others. Tests for potassium, troponin and haemoglobin, which are set in minutes, are almost always met. The two indicators for anatomical pathology are generally met. There has been a deterioration turnaround times of less complex tests since COVID, which is the focus of management attention.

Clinical Incident Rates, 2018/19 to 2022/23

Harm 1, 2 and total incidents per 100,000 patient episodes each month

Incidents per 100k



Next steps





Next steps

SMF has an ongoing investment in identifying and documenting examples of public sector service delivery reforms that lead to better outcomes for citizens, workforce and communities while also delivering financially.

There are opportunities to apply the principles from this reform effort and other cases to other publicly-funded service delivery contexts.

Your challenges

Supporting output, workforce and productivity growth in the health and care sector



Building and understanding of levers for productivity growth across publicly-funded service delivery



What SMF can offer

Resources to support research, data analysis and independent evaluation to further build the evidence base from NSW Health Pathology to support understanding of what works in health and related fields

Resources, guidance and custom engagement to build on our insights about the drivers of productivity growth in non-market settings, including managing reform processes, creating the environment for leadership success and building public sector performance approaches.



Level 11, 90 Collins Street
Melbourne, VIC 3000 Australia

info@susanmckinnon.org.au

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susanmckinnon.org.au