Birdseye Pathology Stewardship Program

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NSW Health Pathology

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NSW GOVERNMENT

2.Aim of this Innovation

To enable emergency departments to identify and reduce unnecessary pathology testing using clinically meaningful statewide data, while maintaining safe and timely patient care.

Before the project: Pathology reporting was largely retrospective and activity based. Emergency departments could not easily compare testing with peer hospitals or examine variation by test, triage category, patient cohort and length of stay.

What prompted the project: Pathology use and expenditure were increasing, with substantial variation between comparable emergency departments. Local audits were resource intensive and difficult to sustain.

Improvement sought: A clinician led, data driven stewardship model that reduces low value testing, improves patient flow, avoids unnecessary cost and carbon emissions scalable across NSW.

3.Key Changes Implemented

Birdseye transformed fragmented pathology activity data into an actionable statewide clinical improvement platform.

- **Linked data and peer comparison:** Emergency department and pathology data were brought together to show testing by hospital, test, triage category, patient cohort and length of stay, with comparison between similar facilities.
- **Clinician-led design:** Measures and visualisations were validated with emergency clinicians and developed in partnership with NSW Health Pathology, the Agency for Clinical Innovation and Emergency Care Institute.
- **Local implementation:** Pilot sites used their own data to identify priority tests and develop targeted interventions, including education, revised ordering practices and regular clinical feedback.
- **Broader measurement:** Evaluation extended beyond test volumes to include patient flow, avoided cost and carbon emissions.
- **Continuous monitoring:** Interactive dashboards replaced one-off audits, allowing services to monitor progress, identify emerging variation and sustain improvement over time.

4.Outcomes so far

The project has demonstrated measurable reductions in pathology use, with patient flow, financial and environmental benefits.
Results

- Wyong achieved an approximately **7% reduction in pathology utilisation**.
- Median length of stay for triage 3 to 5 patients receiving pathology reduced from **522 to 493 minutes**, compared with an 11-minute reduction for patients without pathology.
- From October 2025 to June 2026, the broader program identified:
  - **20,859 fewer unnecessary testing encounters**
  - **$2.4 million in avoided costs**
  - **6.3 tonnes of avoided carbon emissions**

Lessons learnt

- **What worked well:** Clinician ownership, trusted peer comparisons, local flexibility and regular feedback supported engagement and change.
- **What was challenging:** Data validation required significant effort, local implementation capacity varied, and improvement slowed where protected clinical leadership or project support was limited.
- **Advice to others:** Begin with validated data and clinician engagement. Select a small number of achievable priorities, provide local implementation support and monitor safety, patient flow, cost and environmental outcomes together.

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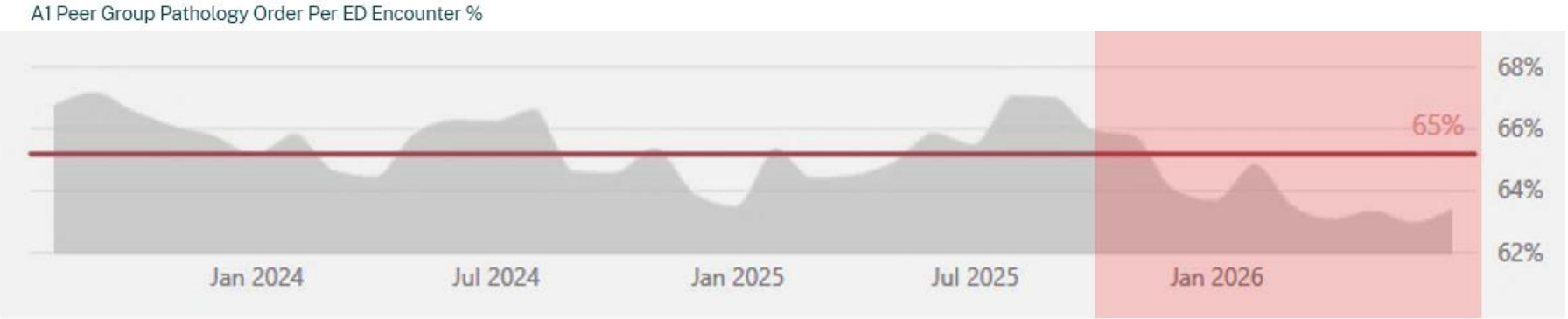
5.Summary

UTILISATION	VALUE	SUSTAINABILITY	PATIENT FLOW
20,859	**$2.4m**	**6.3**	**29 min**
fewer testing encounters	**avoided costs**	**tCO_2e avoided**	**median LOS reduction**
Reduction identified through the stewardship program	Lower expenditure associated with reduced low-value testing	Reduced emissions through more appropriate testing	Triage 3–5 patients receiving pathology at Wyong
Oct 2025 to Jun 2026	Oct 2025 to Jun 2026	Oct 2025 to Jun 2026	522 to 493 minutes

Problem

Emergency departments had limited visibility of pathology ordering patterns and could not easily compare performance with similar hospitals. Testing and expenditure were increasing, with substantial unwarranted variation and limited evidence about the effect on patient flow, cost and carbon emissions.

Solution

Birdseye links emergency department and pathology data to provide clinically meaningful peer comparison by hospital, test, triage category and patient cohort. Clinician-led local teams use the insights to identify priority tests, implement targeted interventions and monitor improvement over time.