



About Lumos and the benefits for general practices

The Lumos program extracts and links **de-identified** patient records from general practices with NSW Health records, to map patient journeys across the health system in NSW. Lumos generates findings to inform the improvement of health services and patient health outcomes across the state.

Trusted and secure

Lumos is approved by the NSW Population and Health Service Research Ethics Committee¹. The program has strong data governance and wide stakeholder representation. Lumos data are stored on a secure platform with strict controls on who can gain access. Patient data are de-identified before being extracted and transferred to Lumos, minimising privacy risks.

For more information on privacy and security measures in place, see: [Lumos Frequently Asked Questions](#).

- **Over 900** general practices consented and participating in Lumos.
- Includes records of approximately **7.3 million** patients.
- In the most recent 12 months more than **3.7 million** people attended a participating Lumos GP, representing 45.7% of the current NSW population.

Benefits to participating general practices

Current

Receive updated **practice-specific reports every 6 months** with unique insights about your patients.

Reports are continually improved based on general practitioner feedback.

Effortless

General practice participates at **no cost**. Data extraction is automated and does not impact the operation of your practice. Individual patient consent for Lumos participation not required.

Included

Contribute to a data asset to inform health system improvement and planning.

Receive **ongoing Primary Health Network support**.

Generate evidence to support areas of future investment in primary care.

Empowerment

Understand characteristics of your patient population in the context of your region and state.

Identify opportunities to inform your practice operations and **data driven quality improvements**.

Understand NSW Health services your patients access outside of your practice.

Use of Lumos reports can **count towards CPD** through self-reporting.



¹ NSW Population Health Service Research Ethics Committee ref 2019/ETH00660

General practice information fact sheet

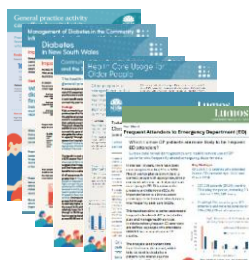
About Lumos and the benefits for general practices

Lumos resources for general practices

Lumos data are used to produce **Lumos general practice reports, insight fact sheets and publications.**



General Practice Report



Insights Fact sheets



Publications

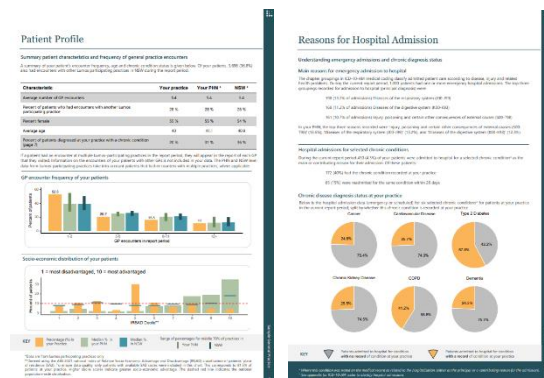
Lumos general practice reports

By participating in Lumos, you will receive twice yearly reports detailing the health service usage of your practice's patients, beyond the walls of your service. Findings are compared against others in your PHN and statewide, providing opportunities for data-driven quality improvement (QI).

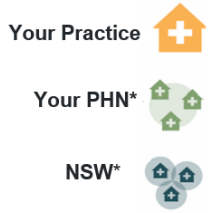
By including data not available in your practice, the reports reveal new insights such as:

- when and why your patients are visiting hospital, including avoidable hospital activity, and
- more accurate estimate of chronic condition prevalence in your community, including patients you may not know about.

Each edition also includes a Condition in Focus. Recent focus areas include cardiovascular disease, asthma and chronic kidney disease.



Preview: General Practice Report using sample data.



🗣️ Lumos general practice reports provide us with significant insights into how our patients interact with the health system outside of our own practice and how we compare to similar practices, across a variety of indicators. This has allowed us to focus on our quality improvement process where they are most needed. 🗣️ – Dr Nuwan Dharmaratne, BSc Adv (hons) MBBS FRACGP DCH, Hills Family General Practice

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Lumos Insight Fact sheets

Lumos regularly publishes statewide insights that inform system planning and policy making. All insights are reviewed to ensure accuracy and reliability of the information. If you would like to use any of the insights in policy or health service improvements, visit [Lumos in Action](#) or please contact us at: lumos@health.nsw.gov.au

Lumos Insights Fact sheets available online:

- [Frequent Attenders to Emergency Department \(ED\)](#)
- [Chronic Obstructive Pulmonary Disease \(COPD\)](#)
- [Continuity of care benefits patients and the system](#)
- [The impact of where people with diabetes live](#)
- [The impact of diabetes managed early in general practices](#)
- [General practice activity can affect hospital visits](#)



Insights featured in public health and primary care publications

2026

- ⊕ Initiators of Semaglutide in General Practice in New South Wales, 2020–2023: A Retrospective Cohort Study. Nicholas I-Hsien Kuo, Flynn Hill *et al.* *Heart, Lung and Circulation* (2025)

2025

- ⊕ Estimating 5-year absolute risk of cardiovascular disease using routinely collected electronic medical records from Australian general practices. Louisa Jorm, Nicholas I-Hsien Kuo *et al.* *Heart*

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- ⊕ An assessment of data quality and sociodemographic variation in health service utilisation of general practice, emergency department and admitted services in a New South Wales linked health data asset: a retrospective cohort study of Lumos. Tristan Bouckley, Rimma Myton-Katieva, *et al. BMJ Open*
- ⊕ Evidence Series: Heavy menstrual bleeding and hysterectomy - Exploring variation in care using Lumos linked data. Agency for Clinical Innovation. NSW Health
- ⊕ What drives primary care providers to adopt innovative care delivery models in New South Wales, Australia? John Mulley. UNSW Faculty, Medicine & Health
- ⊕ Achieving Better Integrated Care Outcomes through Collaborative Commissioning: Learnings from Western Sydney (New South Wales, Australia). Ray Messom. *International Journal of Integrated Care*

Pre 2025

- ⊕ Overcoming silos in health care systems through meso-level organisations – a case study of health reforms in New South Wales, Australia. David Peiris, Anne-Marie Feyer, *et al. Lancet Regional Health Western Pacific*
- ⊕ Implementing privacy preserving record linkage: Insights from Australian use cases. Sean Randall, Adrian Brown, *et al. International Journal of Medical Informatics*
- ⊕ Understanding the Impact of Patient Journey Patterns on Health Outcomes for Patients with Diabetes. Jamil Daher, Patricia Correll *et al. Data Driven Science for Clinically Actionable Knowledge in Diseases*
- ⊕ Future focused primary health care: Australia's Primary Health Care 10-Year Plan 2022-2032. Department of Health, Disability and Ageing

For further information on publications, see: [Key documents](#)



General practice information fact sheet

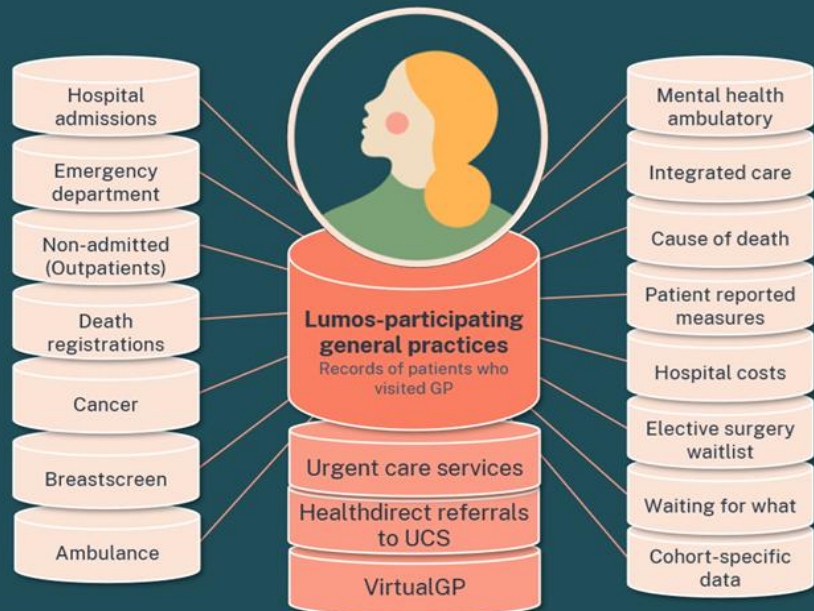
About Lumos and the benefits for general practices

About Lumos data



The Lumos cohort is every patient* who has used:

- a NSW general practice that has opted into Lumos,
- an Urgent Care Service (UCS), or the Healthdirect UCS or VirtualGP referral service.



* Lumos operates under ethics approval that has granted a waiver of individual patient consent. Patients are included when they have attended a general practice that has consented to participate. Patients who have not agreed to secondary use of their general practice data are able to be excluded.

Lumos links deidentified primary health records from participating general practices, UCS and Healthdirect services to data held by NSW Health such as hospital records, ambulance records and more (see above), enabling the following of patient journeys between health sectors statewide.

Lumos is a longitudinal data asset. Data sources and variables included in Lumos may change over time due to changes in the Lumos ethics approval, data availability and frequency of use.

Lumos data are sourced from multiple collections with different availabilities and lag times. Lumos data are made available **approximately 6 months** after extraction from general practices. This lag must be factored into analytics timelines. For further information, see: [Lumos Data Timelines Explained](#).

Who can use Lumos Data?

Access to Lumos data is strictly overseen by the Lumos Data Governance Committee. Appropriately skilled analysts can apply for access to the data for the specific purpose of improving healthcare in areas such as service planning, policy, and clinical protocols. Applications are assessed against established criteria.

Data access by people who are not employees of NSW Health or NSW Primary Health Networks requires a partnership with either NSW Health or a NSW Primary Health Network to ensure uses of the data are relevant to improving service delivery.

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About Lumos and the benefits for general practices

Datasets in Lumos

Dataset	Source
General Practice Electronic Health Records	Individual participating NSW general practices via extraction tools
Healthdirect Virtual GP and nurse triage	Healthdirect
NSW Health Urgent Care Services (UCS)	NSW Health
General Practice UCS	Individual participating general practice-led UCS via extraction tools
Breastscreen NSW	Cancer Institute NSW
NSW Cancer Registry	Cancer Institute NSW
Cause of Death	Australian Coordinating Registry
Death Registration	Registry of Births, Death and Marriage
Admitted Patient records	NSW Health
Hospital costs	NSW Health
Elective Surgery Wait Times *	NSW Health
Emergency Department records	NSW Health

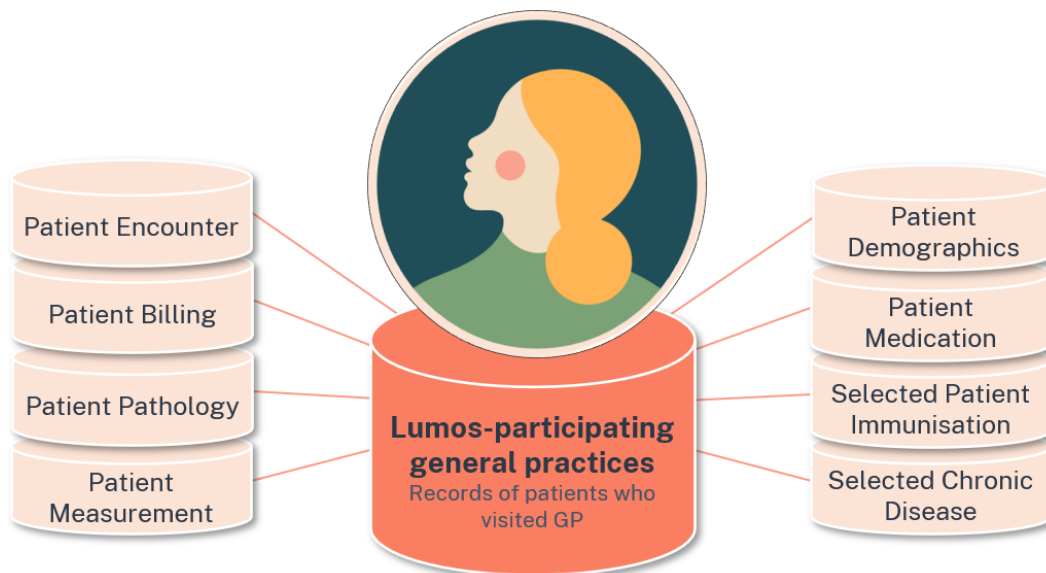
Dataset	Source
Integrating Care Database	NSW Health
Mental Health Ambulatory records	NSW Health
Non-Admitted Patient Data Collection (Outpatients)	NSW Health
Patient Reported Measures*	NSW Health
Waiting for What (reason for hospital discharge delay)	NSW Health
NSW Ambulance Electronic Medical Records (eMR)	NSW Ambulance

- *Not included in every linkage.
- Lumos also has ethical approval for one-off linkage of external patient cohorts for the purposes of evaluating health programs. For further information, see the [Lumos data book](#).
- At this time, Lumos does not have ethics approval for inclusion of Aboriginal Medical Services and the use of an Aboriginality flag in unit record data.
- Discussions with the Commonwealth Government are currently underway regarding the inclusion of data from the Medicare and Pharmaceutical Benefits Schemes in Lumos.

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General practice data in Lumos



As of September 2025: 7 million patient journeys, 872 general practices, 185 million health records

Lumos collects the following information from participating general practices:

- Patient demographics
- Patient encounter counts and dates
- Provider type (GP, Nurse)
- MBS Item number, date and description
- Medications
- Immunisations
- My Health Record flag
- Socioeconomic information
- Vital signs and physical parameters
- Chronic disease information including diabetes, COPD, asthma, heart failure, coronary heart disease, chronic kidney disease, osteoarthritis and mental health conditions
- Pathology measures
- Participation in health programs

All data are deidentified before extraction.

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About Lumos and the benefits for general practices

For more information, please contact your NSW Primary Health Network.

Primary Health Network	Primary care email contact	Phone
Central and Eastern Sydney	digitalhealth@cesphn.com.au	1300 986 991
Hunter New England and Central Coast	James McNeill: JMceill@thephn.com.au	1300 859 028
Murrumbidgee	Andrew Heap: andrew.heap@mphn.org.au	(02) 6923 3100
Nepean Blue Mountains	pcs@nbmphn.com.au	(02) 4708 8100
North Coast	Javier Gomez: jgomez@hnc.org.au	(02) 6618 5400
Northern Sydney	pcaith@snhn.org.au	(02) 9432 8250
South Eastern NSW	events@coordinare.org.au	1300 069 002
South Western Sydney	digitalhealth@swsphn.com.au	(02) 4632 3000
Western NSW	digitalhealth.team@wnswphn.org.au	1300 699 167
Western Sydney	support@wentwest.com.au	(02) 8811 7100

Contact us

If you'd like to know anything more about Lumos, please email:

E: Lumos@health.nsw.gov.au



In partnership with the of Health and Primary Health Networks. NSW Ministry

