



Fact Sheet

Screening for Chronic Kidney Disease in general practice in NSW

Chronic kidney disease (CKD) is impaired or reduced kidney function lasting 3 months or more, regardless of the cause of reduced kidney function¹. Risk of CKD is increased among people with diabetes, high blood pressure (hypertension), cardiovascular disease, obesity and past or current smoking². CKD is categorised into five stages based on kidney function, with the most severe form being kidney failure (end-stage kidney disease). People with end-stage kidney disease require a kidney transplant or dialysis to survive. Early detection of CKD can improve outcomes.

In 2022-24, a biomedical survey reported that around 1 in 7 adults in NSW (14.2%) had pathology measures that indicated a level of CKD³. However, as up to 90% of kidney function may be lost before symptoms occur, the condition is often undiagnosed. This highlights the importance of kidney health screening for the early detection and management of CKD, to delay disease progression, improve patient outcomes and reduce burden on the health system.

Here we present the use of linked general practice (GP) and hospital records from the Lumos program to provide an understanding of rates of CKD screening in at-risk groups in primary care.

Summary of findings

- Just under half of patients (47.5%) attending a Lumos GP have one or more CKD risk factors.
 - 1 in 5 patients at risk of CKD are not receiving recommended kidney health screening on time.
 - Younger at-risk patients and those with obesity or smoking as risk factors are less likely to receive timely screening for kidney disease.
- These results highlight opportunities for increased CKD screening in general practice.

Nearly half of patients in NSW have a risk factor for CKD

Patients with risk factors for CKD were identified in Lumos from GP and hospital records. Of the 1,890,541 patients who visited a Lumos practice at least twice in 12 months, 897,488 (47.5%) had at least one of these risk factors.

Health condition	Sources of identification	Number of patients
Type 2 diabetes	GP chronic disease records; billing items; medications; hospital diagnosis	184,124 (9.7%)
Cardiovascular disease	GP chronic disease records; hospital diagnosis	187,266 (9.9%)
Hypertension	GP blood pressure measurements; hospital diagnosis	336,584 (17.8%)
Obesity	GP measurement records	344,523 (18.2%)
Current or past smoker	GP patient characteristic records	502,863 (26.6%)
Any of the above conditions	From all GP and hospital records	897,488 (47.5%)

Up to 1 in 5 at-risk patients are not screened in recommended timeframes

Early detection of CKD is critical for delaying the progression of disease, leading to improved patient outcomes and reducing burden on the health system. Kidney Health Australia provides guidelines for how often patients deemed at risk of CKD should be screened². Health screening includes estimated Glomerular Filtration Rate (eGFR), Urine Albumin-Creatinine Ratio (uACR) and blood pressure.

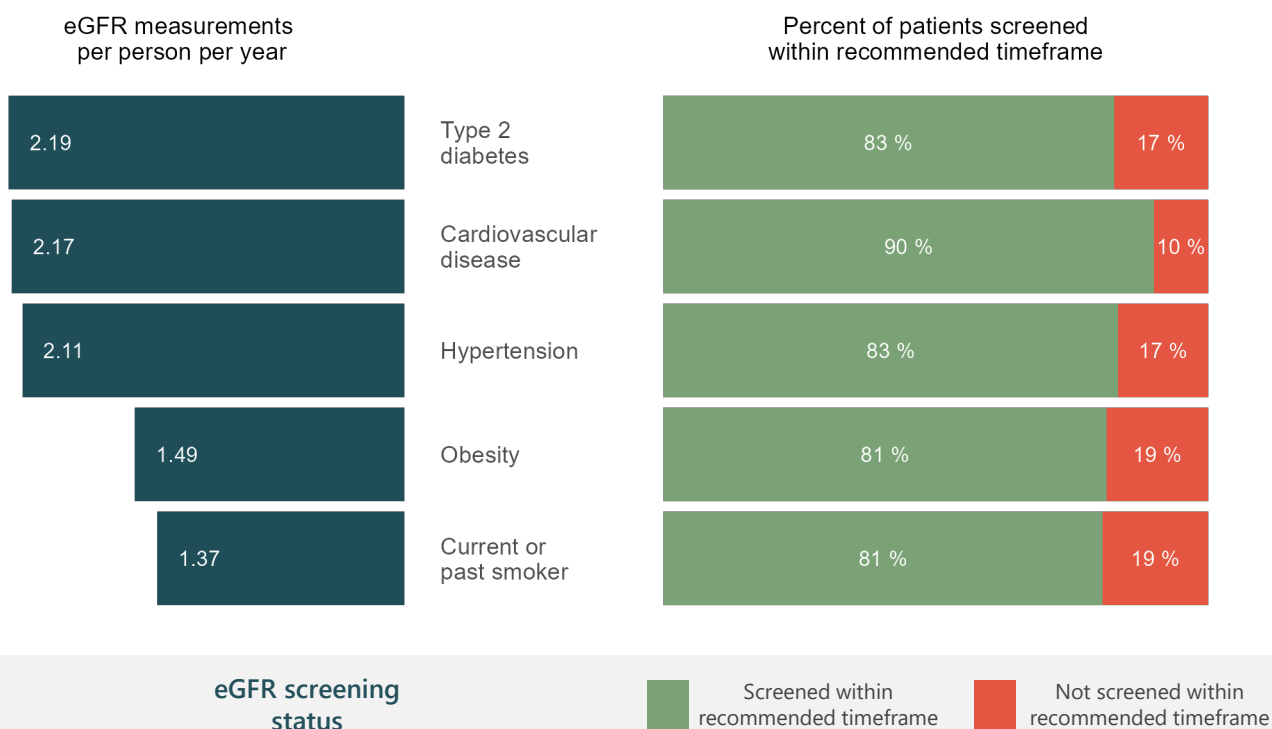
Among patients that had visited a Lumos GP at least twice per year in the three years 2022, 2023 and 2024, 472,027 were identified as at risk of CKD but with no evidence of CKD diagnosis in their GP record. In accordance with Kidney Health Australia guidelines, these patients should be screened regularly.

Risk factor	Recommended frequency
Type 2 diabetes	Annually
Cardiovascular disease	Annually
Hypertension	Every 2 years
Obesity	Every 2 years
Current or past smoker	Every 2 years

Adapted from Kidney Health Australia²

The below charts show the following screening rates for these patients:

- the rate of eGFR* measurements per person per year by CKD-related risk factor (left chart).
- the percentage of at-risk patients, who maintained engagement with a GP, that were screened within the recommended timeframe for their condition (right chart).
 - Over 80% (over 4 out of 5) of patients with a CKD risk factor had a kidney assessment in the recommended timeframe, including 90% of patients with cardiovascular disease.
 - Almost 20% (up to 1 in 5) of patients with a CKD risk factor are not screened within the recommended timeframes. Those with obesity or those who are a current or past smoker are the least likely groups to be screened for CKD within the recommended timeframe.



* Note Lumos currently does not include uACR measurements. But it is unlikely for uACR measurements to be taken without an accompanying eGFR measurement, as such we can use eGFR measurements as the only indication of kidney health screening.

Younger at-risk patients are less likely to receive timely CKD screening



The proportion of patients that had between 2 and 3 yearly encounters with Lumos GPs and have no record of screening within the recommended timeframes was estimated* to be 39%. In contrast, for patients with 12 or more Lumos GP encounters, this proportion fell to 12%.

While 51% of patients at risk of CKD are under 60 years of age, this age group represents 75% of all patients who are not screened within recommended timeframes. An estimated* 38% of people aged 0-39 years and 21% aged 40-59 years had no record of screening within recommended timeframes as per Kidney Health Australia guidelines.

About the Chronic Kidney Disease Factsheet

Background

- The Lumos program links records from participating NSW general practices (GPs) to records held by NSW Health such as hospital admissions, emergency department and outpatient visits, and mortality. This makes it possible to understand patient journeys across the health sector.
- This factsheet provides information about health service use of patients in the Lumos asset with Chronic Kidney Disease, as well as screening information on patients at risk of CKD.

About the Study

- This study was completed on Lumos tranche 11, extracted in April 2025, including 836 general practices. This represented approximately 36% of all NSW general practices.
- This study utilises data from 1,890,541 patients that had at least two encounters with Lumos GPs in the calendar year 2022, which represents approximately 23% of the NSW population at the time.

* We present estimated proportions to account for under-reporting of eGFR measurements from one of the GP extraction vendors. These estimates come from a logistic regression model that quantifies and adjusts for the under-reporting.

¹ <https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/chronic-kidney-disease/overview>

² Chronic Kidney Disease (CKD) Management in Primary Care (5th edition). Kidney Health Australia, Melbourne, 2024.

³ Australian Bureau of Statistics (2022-2024), National Health Measures Survey, ABS Website, accessed 2 Sept 2025.