

Fact Sheet

Frequent Attenders to Emergency Department (ED)

Which Lumos GP patients are more likely to be frequent ED attenders? Lumos data reveal demographics and health service use of GP patients who frequently attend emergency departments.

In the last 10 years, there have been more people attending EDs in NSW¹. Health service planners work hard to connect people with appropriate, timely and accessible care so that people can avoid going to ED. This reduces the pressure and reliance on EDs. An important factor to allow accurate planning is to better understand people who frequently seek care in EDs.

This factsheet aims to better understand frequent attenders to ED to help better plan and manage health services. In this factsheet, frequent ED attenders are defined as people who attended a NSW ED five or more times in 12 months.

The analysis used patient data from the Lumos data asset, which links deidentified data from patients who attend a Lumos participating GP with data from other NSW Health services to provide a comprehensive view of patient journeys.

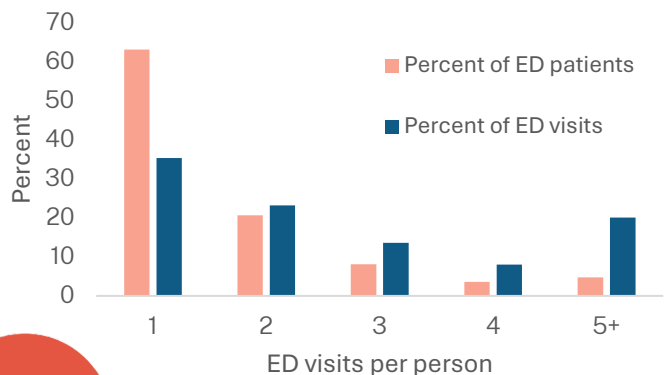
The analysis focuses on patients who attended a Lumos GP between April 2023 and March 2024. More information on the program and methods can be found on page 7.

Key Findings:


Of 3,064,719 patients who attended Lumos GPs between April 2023 and March 2024:

- 667,531 patients (21.8%) went to ED during the period, attending ED a total of 1,192,143 times;
- 31,409 (4.7%) were frequent ED attenders and were responsible for 20% (238,878) of attendances.

Fig 1. Proportion of ED Patients and visits by frequency of attendance



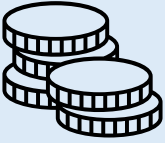
Common characteristics of ED frequent attenders




Those who are aged 65 years and older



Those who live regionally

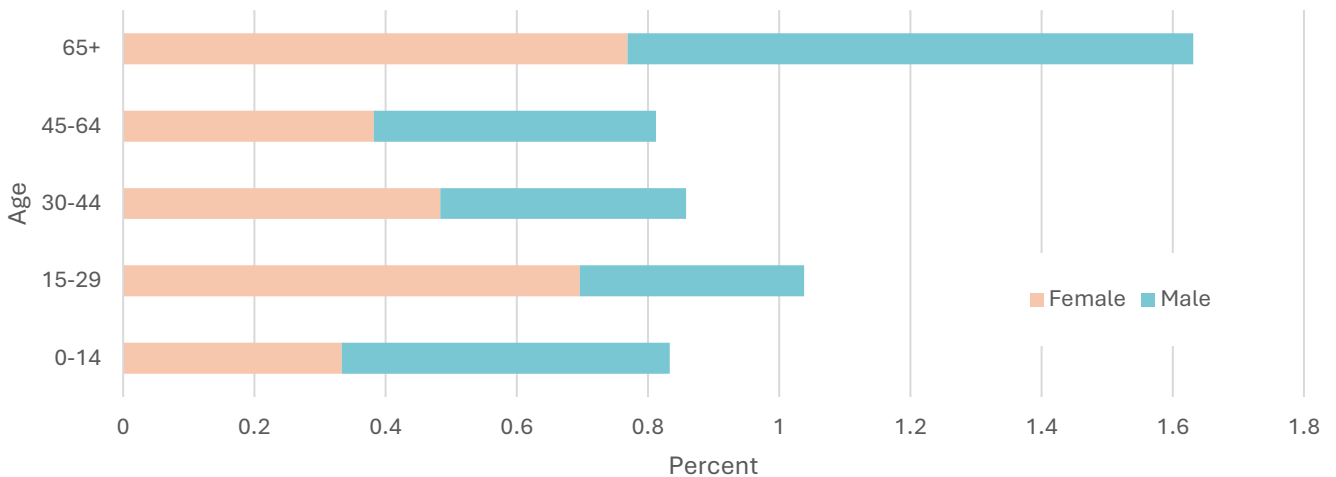


The most socioeconomically disadvantaged



Those with chronic conditions

ED frequent attenders by age and sex



Key Finding:

A higher proportion of Lumos GP patients aged 65 and over were frequent ED attenders than other age groups



Common characteristics of ED frequent attenders

Compared to Lumos GP patients, Lumos frequent attenders were more likely to:

- Be male (48.7% compared to 46.2%)
- Live in regional areas (43.1% compared to 21.6%)
- Be most socially disadvantaged (20.7% compared to 8.6%)

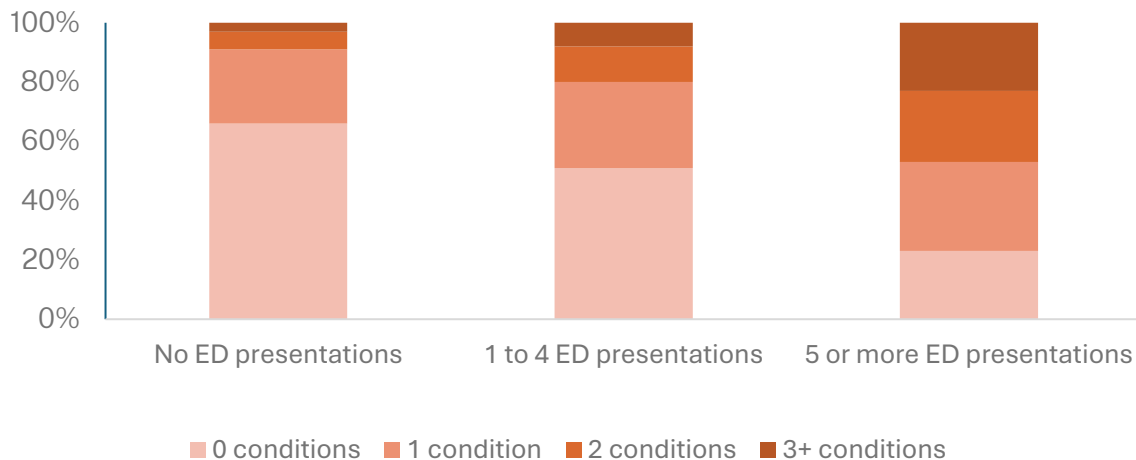


Key Findings – Chronic Conditions:

- 1 in 3 people who did not attend an ED had a chronic condition
- 1 in 2 people who attended an ED 1 to 4 times had 1 or more chronic conditions
- 3 in 4 frequent ED attenders had at least one chronic condition; almost 1 in 2 had 2 or more chronic conditions



ED attendance by number of chronic conditions



Reasons Lumos GP patients visit the ED frequently

Mental Health



Cellulitis



Backache



Frequent ED attenders (5 or more visits)	Rank	Infrequent ED attenders (1 to 4 ED visits)
Abdominal pain	1	Abdominal pain
Chest pain	2	Chest pain
Suicidal thoughts	3	Viral disease
Shortness of breath	4	Falls
Falls	5	Disease caused by COVID-19
Mental health problem	6	Injury of head
Viral disease	7	Fever
Cellulitis	8	Headache
Backache	9	Viral upper respiratory infection
Headache	10	Shortness of breath

* Reasons for presentation in bold are unique to the cohort

Specific reasons for *frequent* ED visits, for different age groups



15-29 years:
Anxiety and
mental health

30 – 64 years: Mental
Health and alcohol
misuse

65+ years: Shortness
of breath and
administration of
medicine

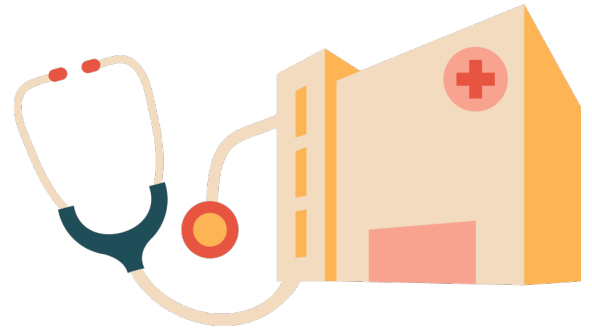


Differences in presentations in frequent ED attenders by GP engagement

Key Findings:

Frequent ED attenders who are infrequent Lumos GP users are more likely to present to ED with acute mental health issues

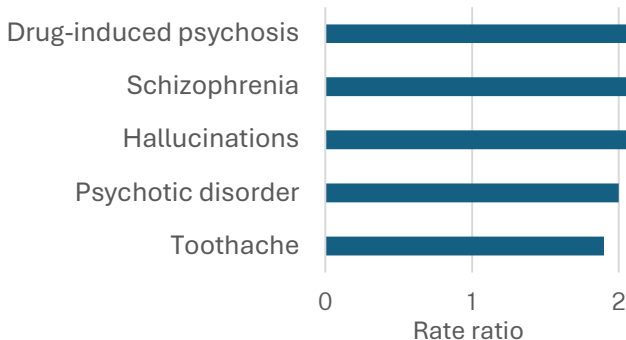
Frequent ED attenders who are also frequent GP users are more likely to present to ED for reasons typically associated with older age such as heart failure and falls



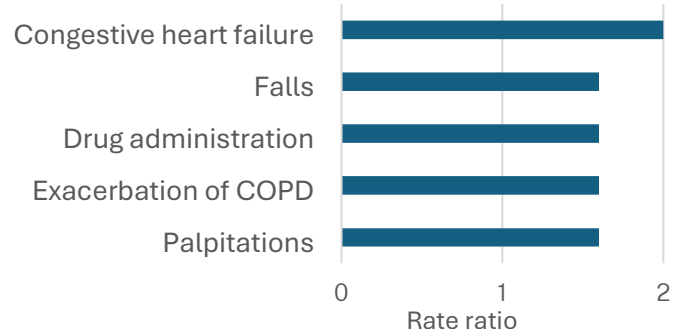
The chart below compares, among ED frequent attenders, the reasons for attending an ED for those who attended a Lumos GP once, and those who attended a Lumos GP five or more times in 12 months. The charts presents the five highest ratios in reasons for ED attendance between these groups.

Top five differences in reasons for ED presentation among frequent ED attenders by frequency of GP visits

Infrequent GP users (attended GP once) compared to frequent GP attenders



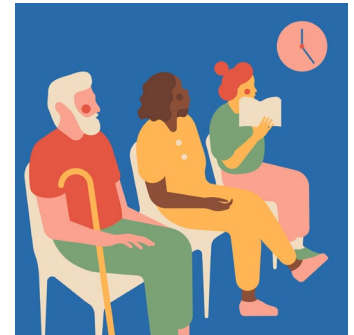
Frequent GP users (attended 5 or more times) compared to infrequent GP attenders



Health service utilisation of frequent ED attenders in NSW

When frequent ED attenders go to ED:

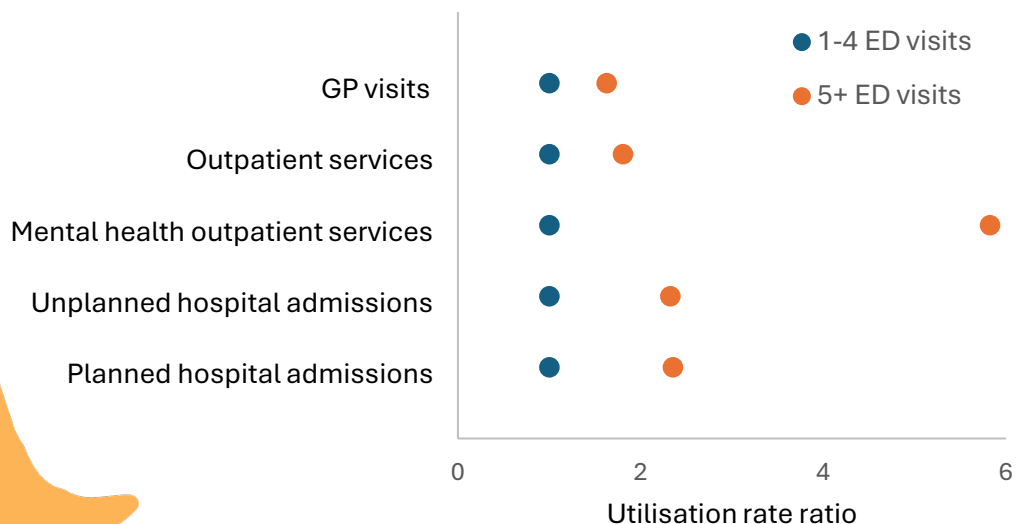
- More than 1 in 3 arrive by emergency vehicle compared to around 1 in 5 of other ED attenders
- They are more likely to attend for more urgent care* (58.2% compared to 54.1% of other ED attenders)
- They are more likely to be admitted to hospital (30.5% compared to 26.7% of other ED attenders)
- They are more likely to leave without being treated (12.6% compared to 9.4% of other ED attenders)



Other health service usage by frequent ED attenders in NSW

Key Findings:

- Frequent ED attenders are more likely to use other health services, including visiting GPs and outpatient services and being admitted to hospital, compared to patients who attended an ED 1 to 4 times in the study period.
- Frequent ED attenders were 5.8 times more likely to attend mental health outpatient services than other ED attenders.



About the ED Frequent Attenders 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 by frequency of emergency department attendance.

ABOUT THE STUDY

- This study was completed on Lumos tranche 9, extracted in April 2024, including 725 general practices. This represented approximately 31% of all NSW general practices.
- 3,064,719 people who attended Lumos GPs between April 2023 and March 2024 were included, representing approximately 37% of the NSW population at the time.

Reference footnotes:

Bureau of Health Information. Emergency Department Attendances Trend to Oct-Dec 2024
<https://www.bhi.nsw.gov.au/data-portal>

Disclaimer:

Information contained in this publication is based on knowledge and understanding at the time of writing and is subject to change.

