

practice A

Sample PHN Primary Health Network

Lumos General Practice Report

October 2022 data collection for the 12 month reporting period
ending September 2022



Lumos – Have your say survey

Lumos






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About this report

This report provides information about the patients who had encounters with your practice for the 12 month reporting period ending 30 September 2022 and also their other health care activity and outcomes during that period. An encounter is defined in this report as a doctor or nurse interaction at your practice in this period.

The terminology and patient numbers in the boxes below are used throughout this report:

This practice	1,700 patients who had encounters with practice A at least once. This represents 0.1% of all Lumos participants over the reporting period.	
This PHN	18,000 patients who had encounters with any of the NA participating practices in Sample PHN PHN at least once. This represents 0.7% of all Lumos participants over the reporting period and 1.9% of all people in this PHN.	
All PHNs	2,735,706 patients who had encounters with any of the 585 participating practices in NSW at least once. This represents 33.4% of all people in NSW.	

Information from the practices participating in Lumos in your Primary Health Network (PHN) and across New South Wales (NSW) is presented throughout the report for context. There will be many points of difference between the data for patients at your practice as compared to other practices. This may reflect differences in your patient population, health profiles and in the range of services you deliver. You may find some information in this report more relevant to your practice than others. The contents page is there to assist you to navigate through this report.

Current reporting period

The information provided in this report is about those patients who had encounters with your practice at least once in the 12 months from 1 October 2021 to 30 September 2022, which corresponds to the most recent 12 month period when linked data were available across all datasets included in this report. Throughout the report, this reporting period is referred to as the current reporting period.

Participating practices

This report pertains to 585 practices in NSW comprising:

108 practices	Central and Eastern Sydney PHN	30 practices	South Eastern NSW PHN
59 practices	Northern Sydney PHN	77 practices	Western Sydney PHN
13 practices	Western NSW PHN	98 practices	Hunter New England and Central Coast PHN
25 practices	Nepean Blue Mountains PHN	19 practices	North Coast PHN
131 practices	South Western Sydney PHN	25 practices	Murrumbidgee PHN

Overview

The aim of this report is to deliver a view of the health system beyond your practice. It provides information about your patients' journeys across primary, acute and other healthcare settings in NSW from 1 October 2021 to 30 September 2022, and allows you to see your important part in these journeys. People with selected chronic health conditions are a focus in this report.



The Lumos Program

Health service utilisation is changing rapidly and understanding the patient journey across health services is more important than ever. The Lumos Program is an ethically approved program running throughout NSW to map patient journeys across all levels of the continuum of care in health. Lumos data comprises patient records from NSW GPs linked to records from across the NSW health system. This report takes the data you have contributed to the Lumos Program to provide you with a unique system view of health services accessed by your patients, such as hospital admissions and emergency department (ED) presentations. This report may be useful to inform service planning and quality improvement in your practice.

Our vision is to deliver up-to-date information about what services are used by patients, where and when, that will inform the strategic directions and priorities of patient healthcare in all health sectors in NSW. Your continued involvement helps build a data asset to support health system improvement and to deliver more cohesive health services. Lumos would not be possible without the support of the general practices (GPs) that participate.

For further information on the Lumos Program, please visit www.health.nsw.gov.au/lumos

Linked health data

Lumos provides a unique opportunity for you to understand the health services your patients access and their outcomes, including:

Hospitalisations

All inpatient admissions (planned or unplanned) from public hospitals, public psychiatric hospitals, multi-purpose services, private hospitals and private day procedure centres in NSW. Private hospitalisation data were only available until 30 June 2021 and therefore are not included in this report.

Mental Health Ambulatory Care

Each record represents mental health assessment, treatment, rehabilitation or care outside of psychiatric hospital settings. May include crisis assessments, psychiatric outpatients, liaison and outreach services.

ED presentations

Each record represents a presentation to a public emergency department (ED) in NSW. This includes patients who register to be seen for an ED service but did not wait for the service to be delivered.

GP
patient

Mortality

All NSW deaths from the Registry of Births, Deaths and Marriages. Some deaths may be outstanding at the time of data extraction and therefore the number stated in this report may be revised in future.

Ambulance

NSW Ambulance datasets capture information for emergency and urgent episodes of care for NSW Ambulance patients who:

- were transported to a hospital;
- were left at a scene following clinician assessment; or,
- died at the scene.

Outpatient services

Outpatient services, also known as non-admitted patient services, are an interaction* between a healthcare provider of NSW Health (clinical or therapeutic) and a person who is not formally admitted to a hospital or multi-purpose service. Examples include community nursing and drug and alcohol rehabilitation. It excludes mental and oral health services.

**The interaction may be for an assessment, examination, consultation, treatment and/or education.*

Patient profile

Patient population by sex, age, remoteness and socio-economic status

This page provides key demographic characteristics of your patients which will help you interpret your report. Of your patients who had encounters with your practice in the current reporting period, 52.8% were female, 47% were male and the average age was 40.2 years. Across this PHN, the values were 53%, 46.8% and 39.7 years, respectively.

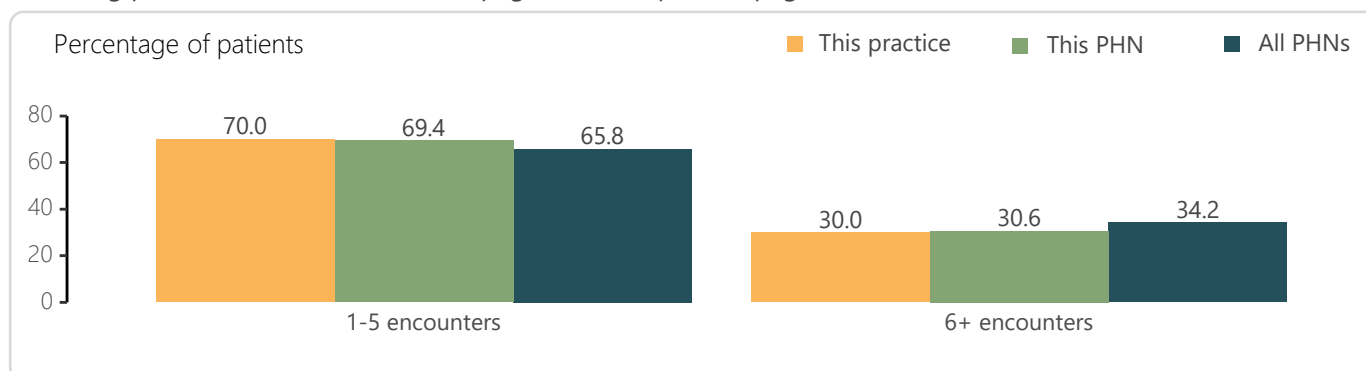
See Appendix for information about categorising remoteness using the accessibility/remoteness index of Australia (ARIA) and socioeconomic status using the index of relative socioeconomic advantage and disadvantage (IRSAD).



Frequency of general practice encounters

Knowing how often patients had encounters with your practice can help you understand demand on your services. Your patients each had an average of 5.2 encounters with your practice in the current reporting period. Of your patients, 0 (0%) also had encounters with another Lumos participating practice in NSW. Across this PHN, these values were 5.2 and 39 (0%), respectively.

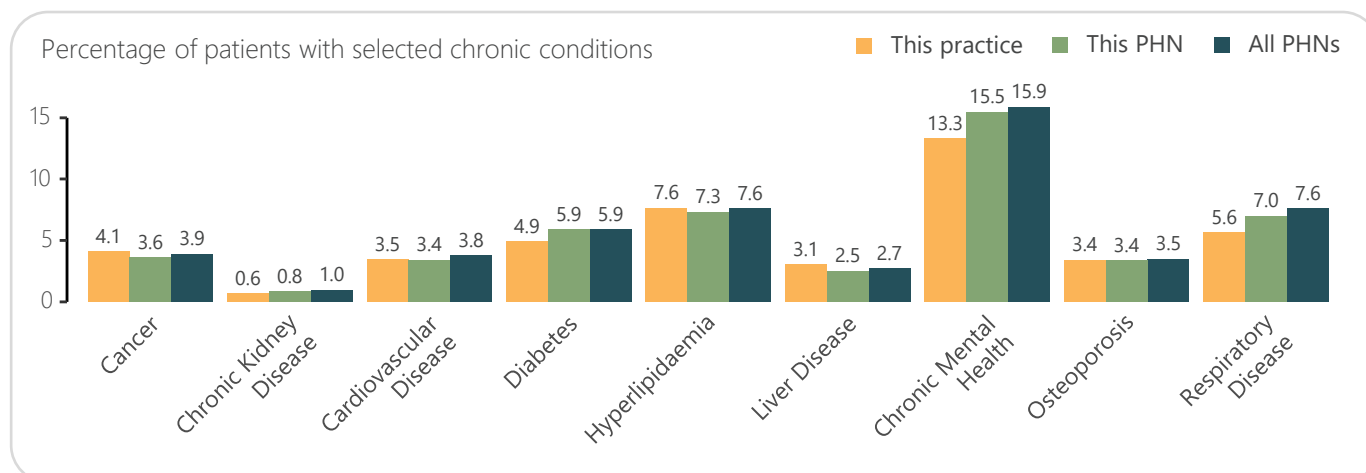
The frequency of patients attending your general practice is displayed below. This may be helpful to reference when reviewing patients who attended ED on page 12 or hospital on page 17.



GP encounters are defined as doctor or nurse encounters.

Patients with selected chronic conditions

The proportion of patients that have diagnoses of the following selected chronic conditions is useful context to the information in this report. The chart below shows the proportions of patients that had encounters with your practice in the current reporting period and had any of the nine selected chronic condition diagnoses. Overall 29.8% had been diagnosed at your practice with any of these conditions (32.7% in this PHN and 29.7% in all PHNs).



Notes:

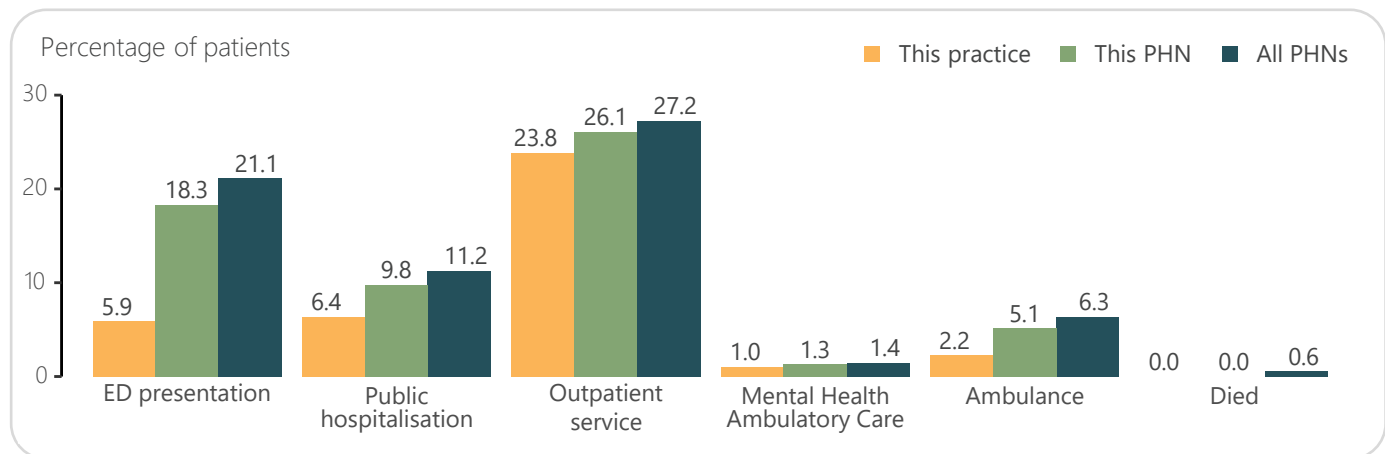
- Some patients have multiple chronic conditions, and therefore percentages may sum to over 100%.
- Cardiovascular disease includes any patient flagged as having an acute coronary syndrome, atrial fibrillation, carotid stenosis, heart failure, myocardial infarction or stroke. Respiratory disease includes any patient flagged as having asthma or chronic obstructive pulmonary disease. Chronic mental health includes any patient flagged as having anxiety, bipolar disorder, depression or schizophrenia.
- There may be additional patients with these chronic conditions who had encounters with your practice in the current reporting period where this information was not captured.

The subsequent pages of this report will present chronic condition status as 2 mutually exclusive categories.

- Selected chronic conditions:** Patients with any (single or multiple) chronic conditions from the 9 chronic conditions listed in the chart above.
- No selected chronic conditions:** Patients with none of the 9 conditions listed in the chart above.

Patients in the NSW Health system

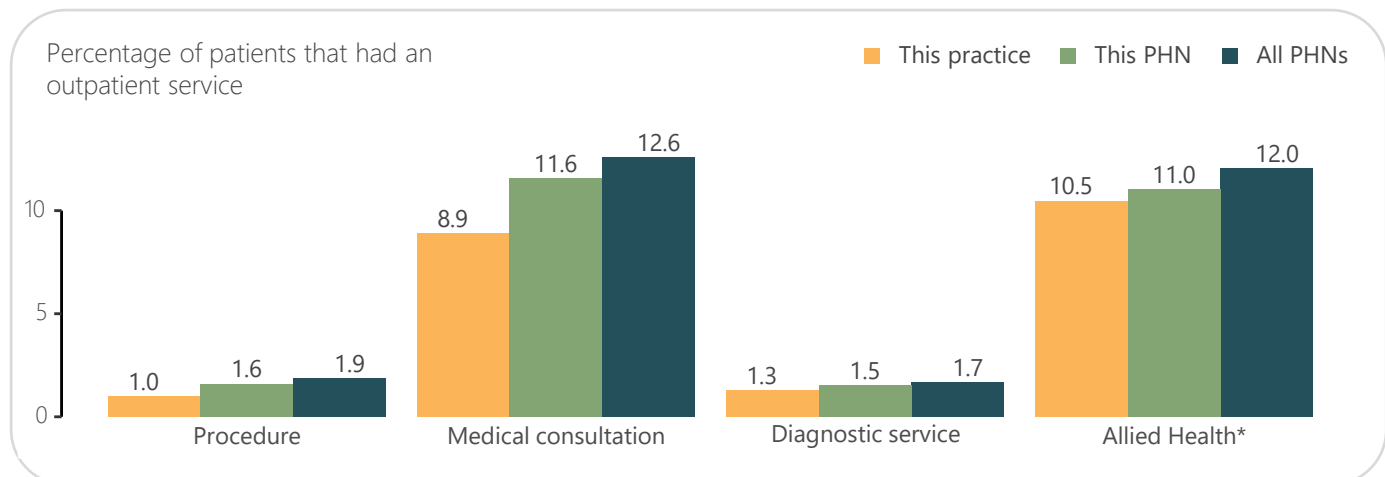
Among patients who had encounters with your practice in the current reporting period, the following proportion attended the below NSW Health services or died in the current reporting period.



Note that some patients have used multiple health services, and therefore the percentages may sum to over 100%.

Your patients who had an outpatient service

What outpatient services did your patients access? Among patients who had encounters with your practice in the current period, the following proportion had an outpatient service in the current reporting period by service type.



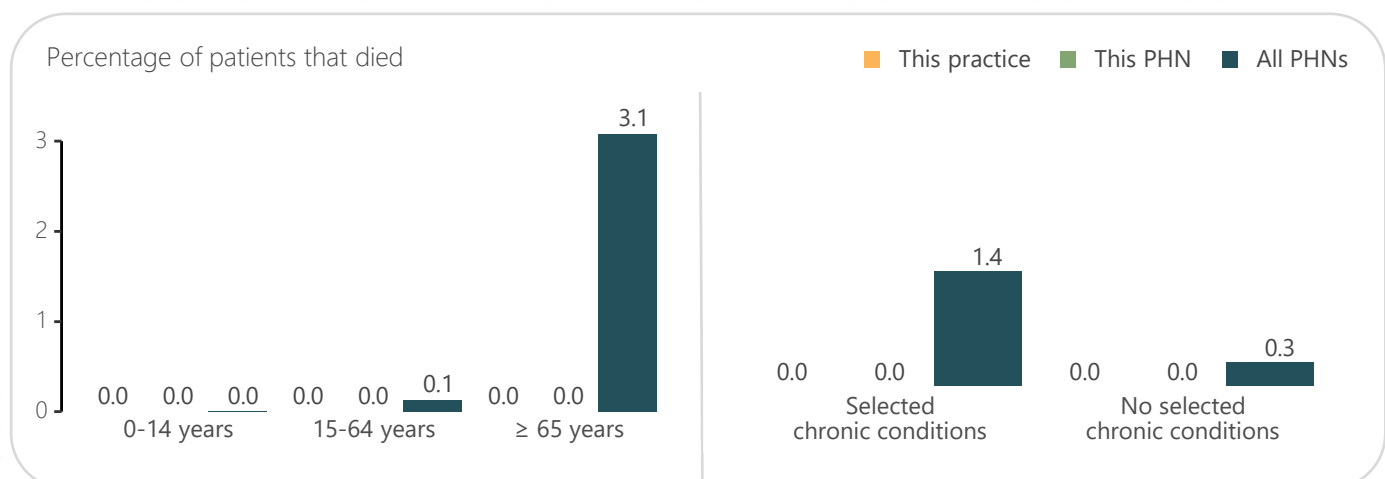
*Allied health represents allied health or clinical nurse specialist intervention services.

Note that some patients have used multiple outpatient services, and therefore the percentages may sum to over 100%.

The chart excludes mental health and oral health outpatient services.

Your patients who died

Lumos includes mortality data which may be more complete than your usual sources of information. The following proportion of your patients died in the current reporting period by age and selected chronic condition cohorts.



Acute and outpatient service interactions of your patients

The following diagrams show the number of patients with different combinations of services that were accessed at least once, in the current reporting period. The diagrams do not show how many times a service was accessed.

This practice

Selected statistics to aid chart interpretation



1,229 (72.3%) patients had no hospital admission, did not present to the ED and did not have an outpatient service



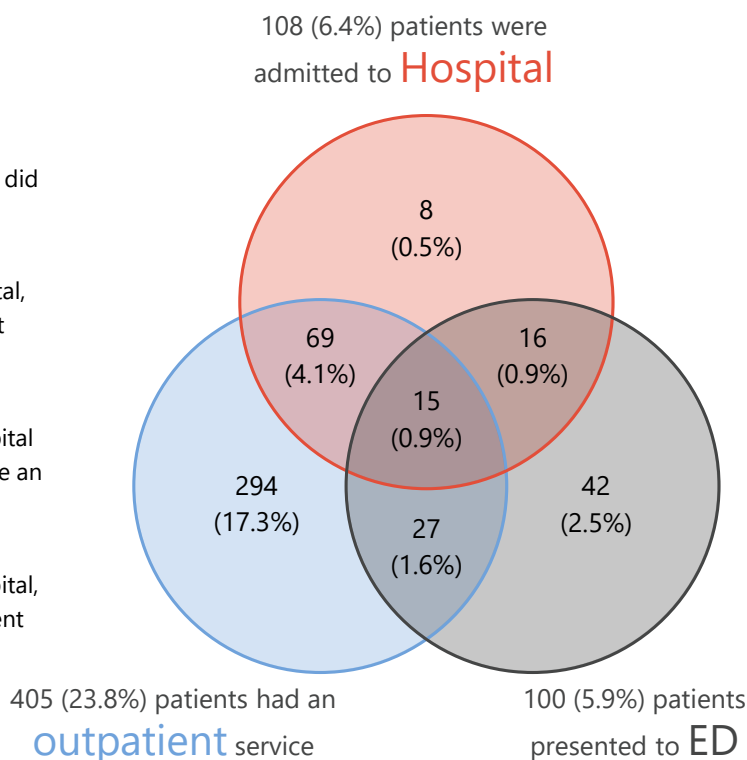
8 (0.5%) patients were admitted to hospital, but did not present to the ED and did not have an outpatient service



16 (0.9%) patients were admitted to hospital and presented to the ED, but did not have an outpatient service



15 (0.9%) patients were admitted to hospital, presented to the ED, and had an outpatient service



This PHN

Selected statistics to aid chart interpretation



11,491 (63.8%) patients had no hospital admission, did not present to the ED and did not have an outpatient service



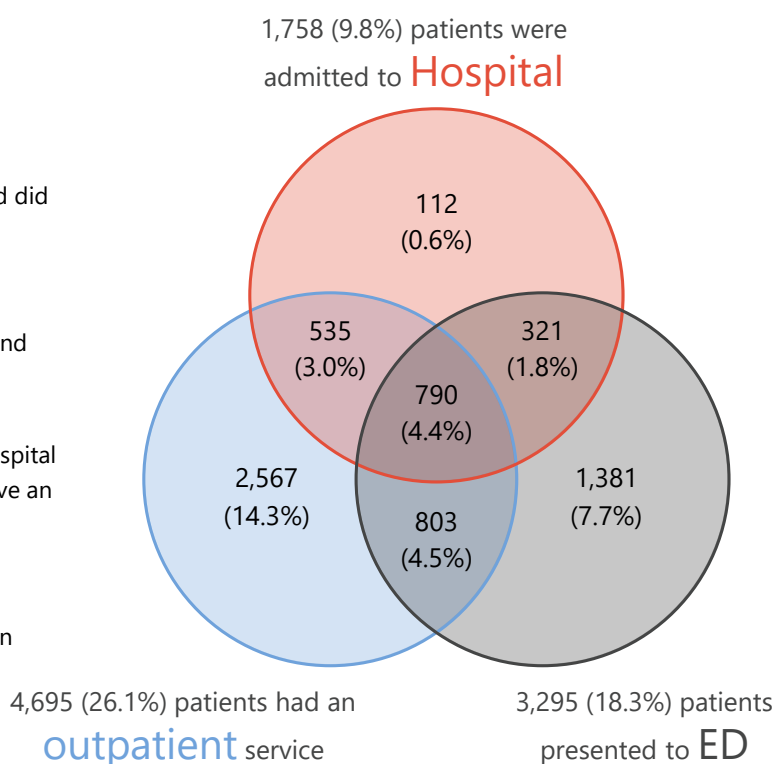
112 (0.6%) patients were admitted to hospital, but did not present to the ED and did not have an outpatient service



321 (1.8%) patients were admitted to hospital and presented to the ED, but did not have an outpatient service



790 (4.4%) patients were admitted to hospital, presented to the ED, and had an outpatient service



Emergency department presentations



ED presentations

Each record represents a presentation to a public emergency department (ED) in NSW. This includes patients who register to be seen for an ED service but did not wait for the service to be delivered.

This section provides more detail about your patients who presented to the ED in the current reporting period. It highlights which patient cohorts are more likely to go to the ED, how often and when these patients had encounters with your practice and also why and when these patients presented to the ED.

The following insights are presented for all ED presentations and separated by triage category. This information is further explored by age, selected chronic disease cohorts, timing of ED presentations and referral types.

The information presented refers to public ED presentations only since private ED presentations are not available.

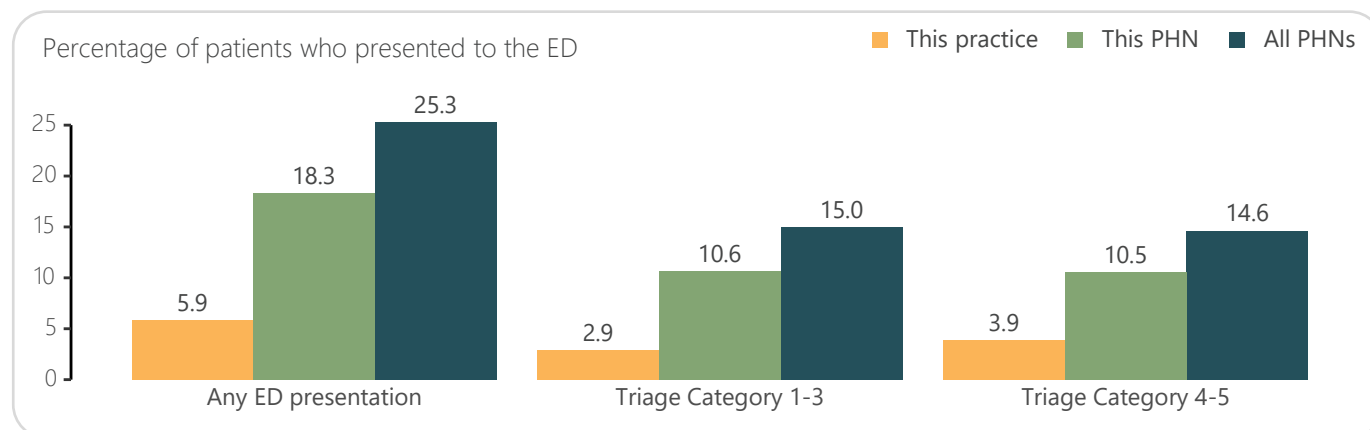
Emergency department presentations

In the current reporting period, 100 patients had an encounter with your practice and had an ED presentation. On average, these patients presented to the ED 1.7 times each.

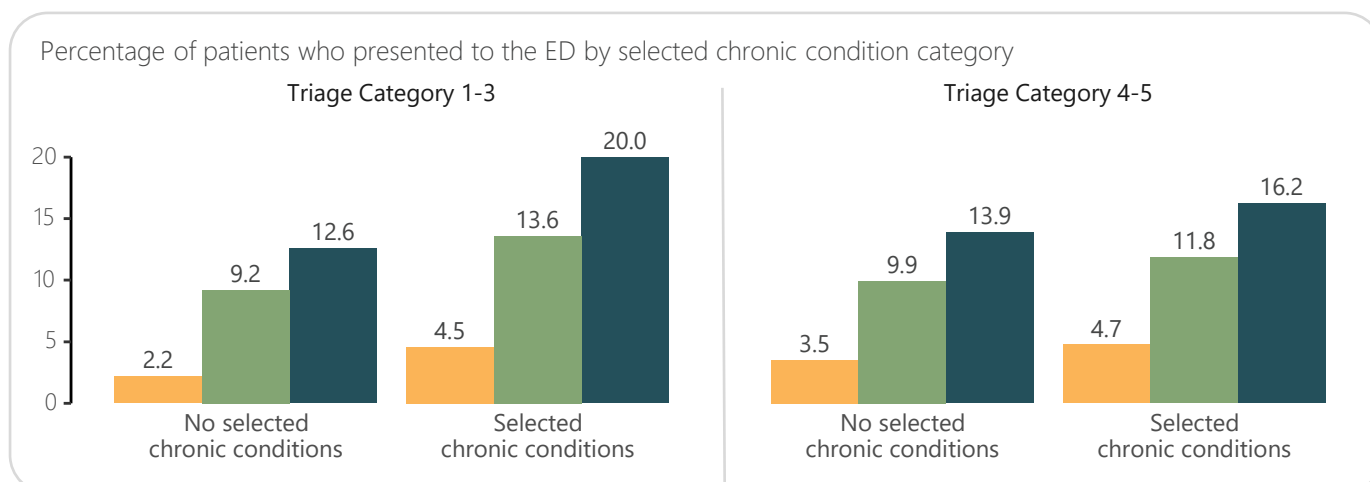
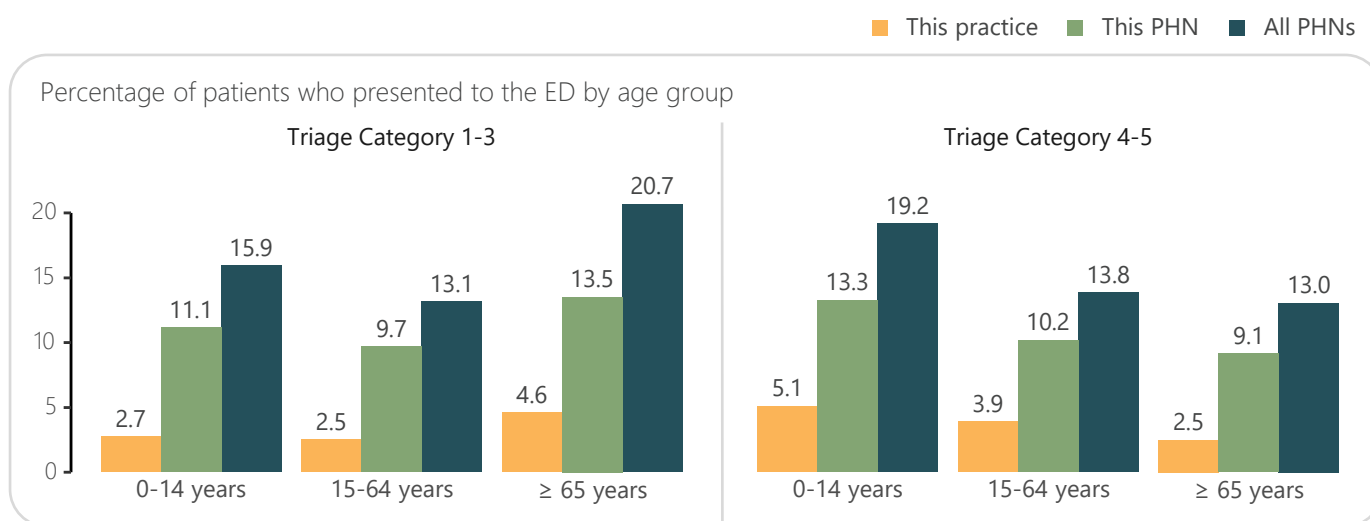
Triage category, age and selected chronic conditions

Public ED utilisation is presented by triage category. Triage categories 1 to 3 (resuscitation, emergency and urgent ED presentations) and categories 4 and 5 (semi-urgent and non-urgent ED presentations) are grouped together. Some patients may be counted in both groups. Therefore, the percentage of any ED presentations could be less than the sum of the percentages reported for triage categories 1 to 3 and categories 4 and 5.

Among patients who had encounters with your practice in the current reporting period, the following proportion presented to an ED, for any reason by triage category grouping in the current reporting period.



The next two charts show the proportion of patients who had encounters with your practice in the current reporting period that presented to ED in the current reporting period, by age cohort or selected chronic condition cohort. The details of chronic condition categories are provided on page 7.



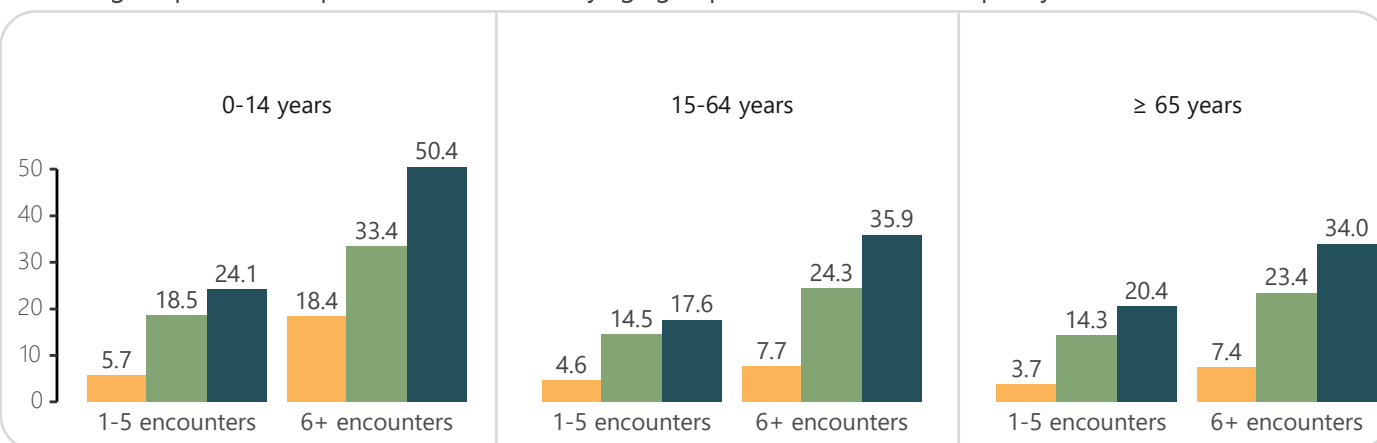
ED presentations and frequency of GP encounters

How does the frequency of GP encounters compare to presentations to ED? The charts below show the proportion of patients who had encounters with a practice participating in Lumos in the current reporting period and also presented to an ED. This is shown by frequency of GP encounters for age group and selected chronic condition categories.

It may be helpful to reference this information with the chart on the top of page 7, which shows the overall encounter frequencies of your patients (encounter frequency by age group is presented below for context).

■ This practice ■ This PHN ■ All PHNs

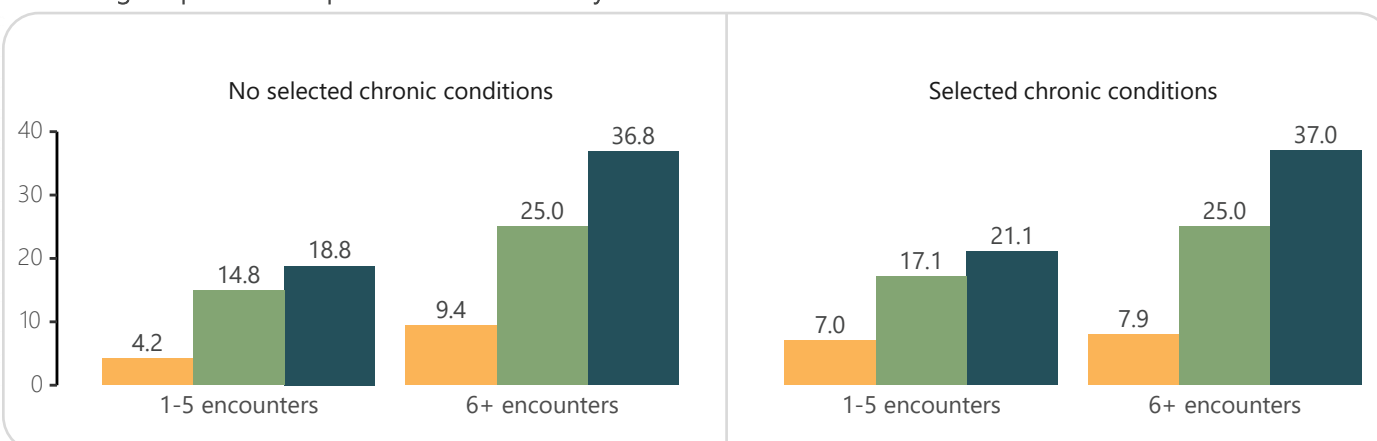
Percentage of patients that presented to the ED – by age group and GP encounter frequency



Percentage of patients that presented to your practice – by age group

Age group (years)	GP encounters at this practice in the current reporting period			
	1-5		6+	
	Number	%	Number	%
0-14	245	14.4	49	2.9
15-64	811	47.7	312	18.4
≥ 65	134	7.9	149	8.8

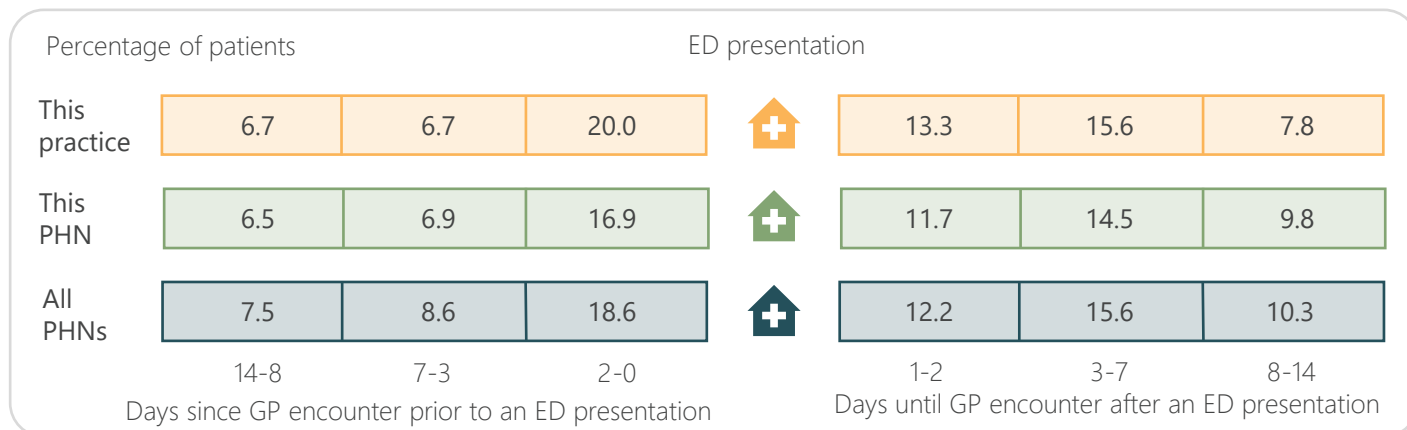
Percentage of patients that presented to the ED – by selected chronic condition cohort



GP encounters are defined as doctor or nurse encounters.

GP encounters around the time of ED presentation

There were 90 patients who had encounters with your practice in the current reporting period and who also presented to the ED from mid-October 2021 to mid-September 2022*. Of these, 30 (33.3%) had an encounter with your practice within 14 days prior to their ED presentation and 33 (36.7%) had an encounter with your practice within 14 days after their ED presentation. There were 11 (12.2%) patients that had encounters with your practice both within 14 days prior to and within 14 days after their ED presentation. The chart below shows the proportion of patients that had GP encounters in selected time periods prior to and after an ED presentation. If a patient had multiple ED presentations in the time period, the most recent one was selected.



* Information about ED Presentation time window available on page 25.

When interpreting this information, you might consider the following:

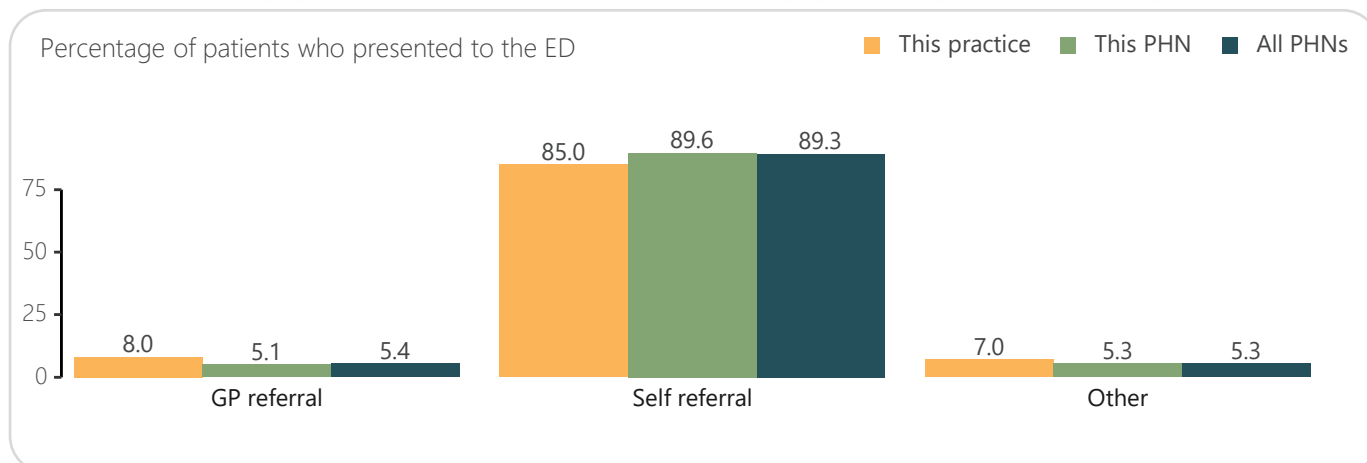
The chart above might help you identify opportunities for the integration and coordination of care, depending on the unique context of your patients. When interpreting this information, you might consider the following:

- Is your practice in a rural or regional area with inherent challenges around access to services?
- Does the hospital / ED have your contact details?
- Do you receive timely discharge summaries?
- Can the ED help facilitate a follow up appointment with you for your patients?
- Is there an opportunity to provide telehealth consults to facilitate continuity of care for patients unable to interact with your practice soon after discharge?
- Is there an opportunity locally to work together on pathways back to general practice? E.g. with local initiatives, alliances and working with your PHN?

ED presentations by referral type

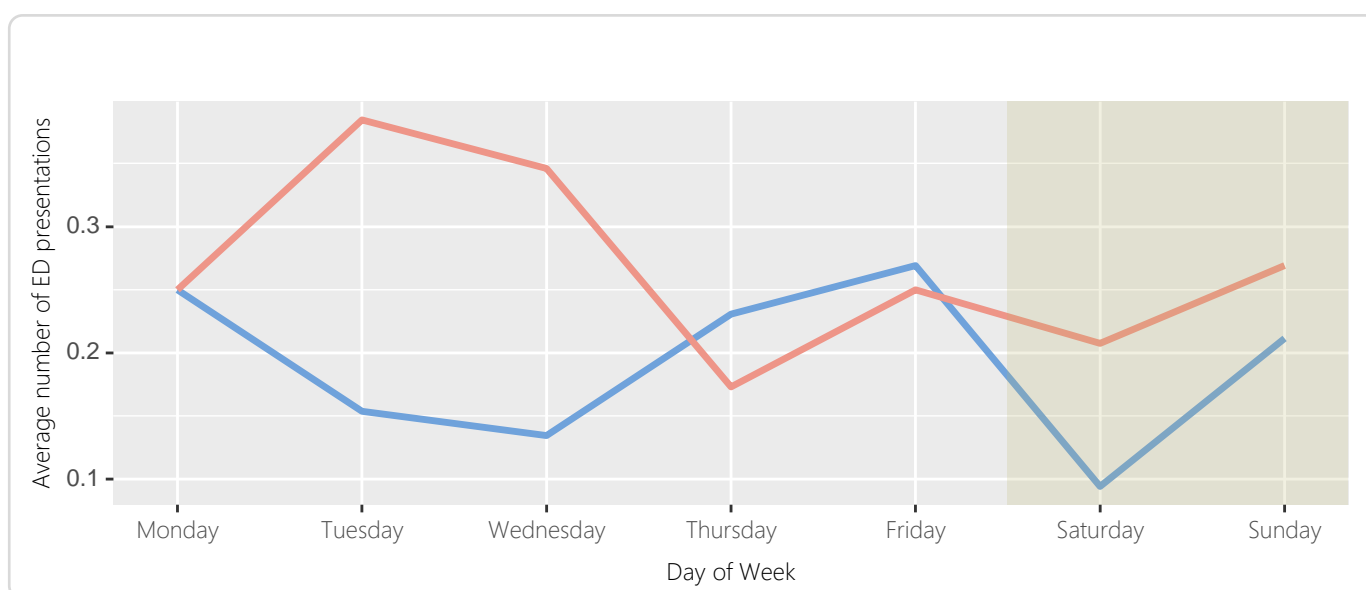
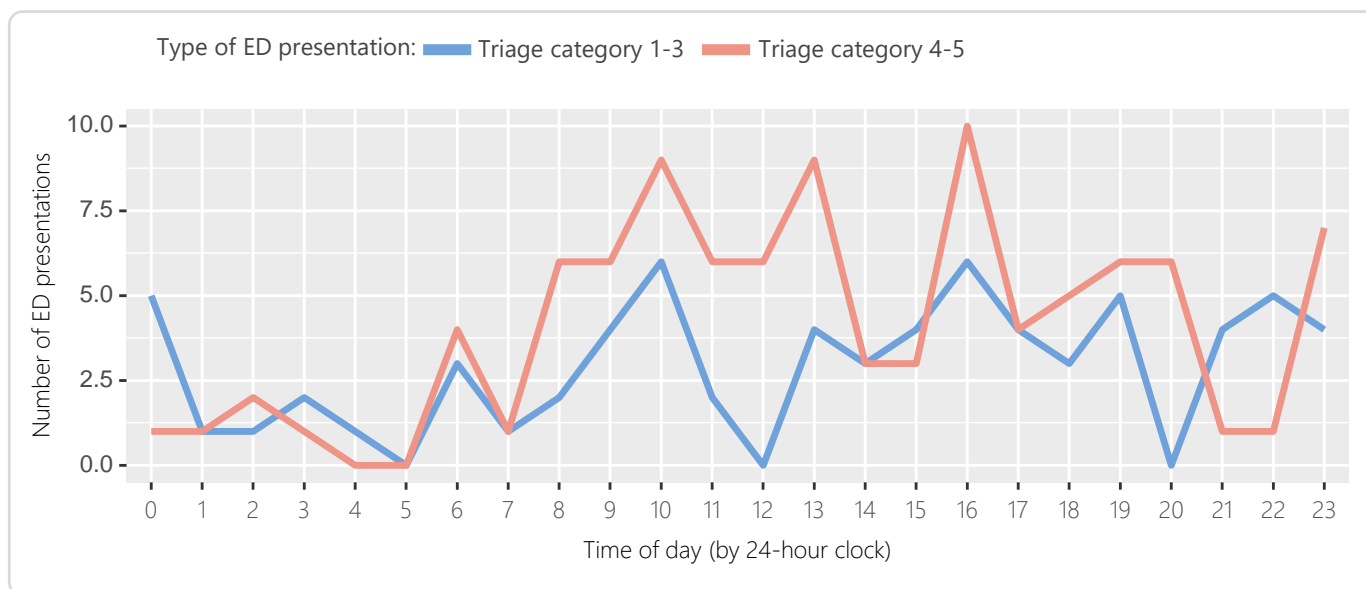
How had your patients been referred when they presented to ED?

The following chart shows the distribution by referral type among patients who had encounters with your practice in the current reporting period and who also presented to the ED in the same 12 month period. If a patient had multiple ED presentations, the most recent ED presentation in the time period was selected.



ED presentations by time of day and triage category groupings

There were 100 patients that had encounters with your practice during the current reporting period and also presented to the ED in the current reporting period. The following charts show how many presentations were triage category 1-3 (resuscitation, emergency and urgent) or triage category 4 and 5 (semi-urgent and non-urgent) ED presentations, by 1) time of day and 2) day of week these presentations occurred.

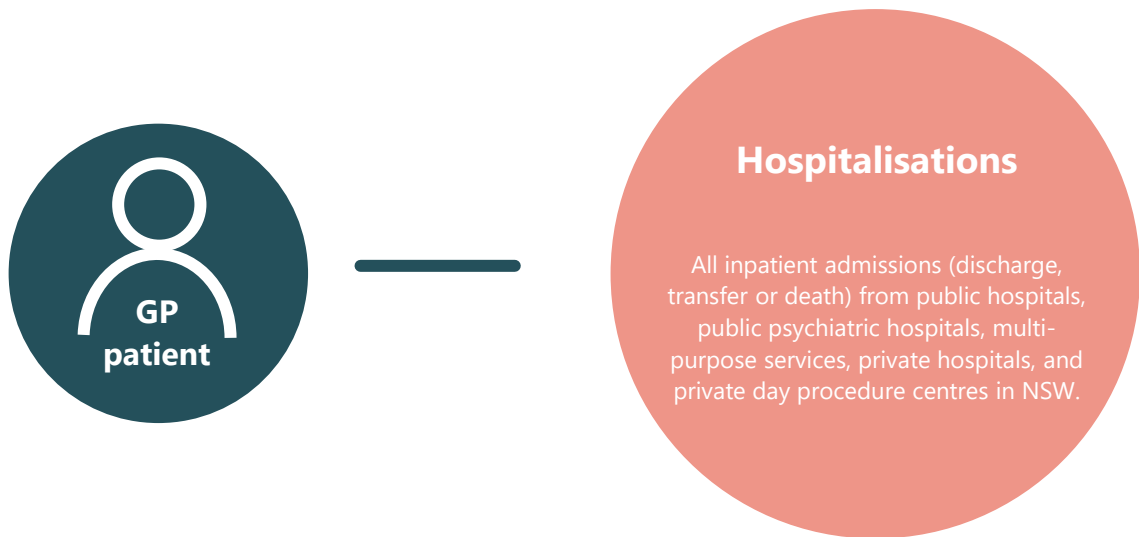


Ideas for interpreting or applying this information:

If your patients are presenting to ED at particular times of the day, for example early morning, late afternoon or lunch time, or particular days of the week:

- Look at the numbers of ED presentations per hour of the day – are the numbers high enough to consider expanding your services?
- Is there an opportunity to adjust your opening hours to meet the demand you may not be aware of?
- Are there after hours services you can make available?
- Are there “spikes” of activity; in particular, triage category 4 & 5 (the non-urgent categories)
- Is there enough activity to bring on another clinician, e.g. a GP or practice nurse?
- Are there opportunities to review patient triage processes, for example, implementing a nurse lead clinic to manage patient flow during busy times?
- Would an online booking system help your patients know when you are available?

Hospitalisations



The following section of this report provides more detail about your patients who were admitted to hospital in the current reporting period. It highlights which patient cohorts are more likely to go to the hospital, how often and when these patients had encounters with your practice, as well as some key reasons for their hospital admission.

Data are first presented for all NSW hospitalisations and then for unplanned and planned hospitalisations. These data are further explored by age, and selected chronic disease cohorts. Key insights about the proportion of hospitalisations for selected chronic conditions are also shown.

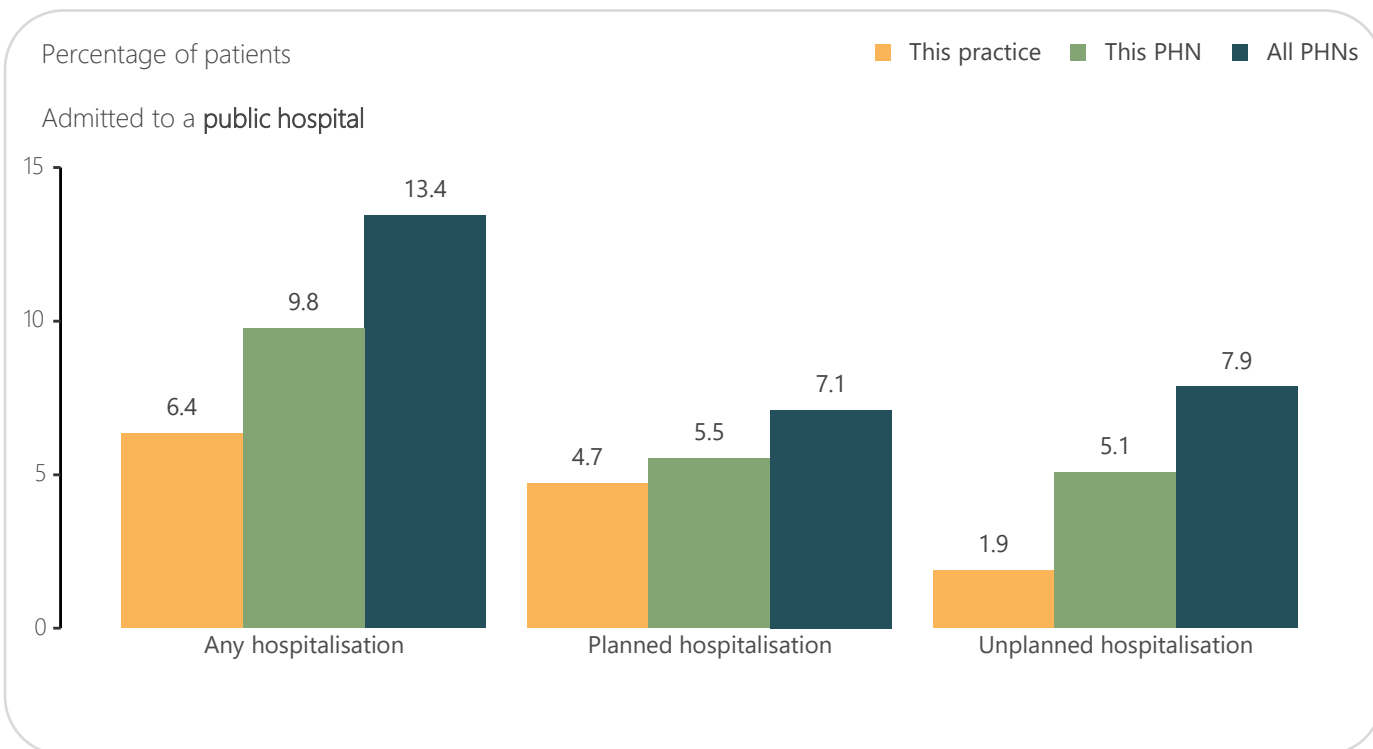
Private hospitalisation data were only available until 30 June 2021 and therefore are not included in this report.

Hospitalisations

In the current reporting period, 108 patients had an encounter with your practice and had a hospital admission. On average these patients were admitted to hospital 1.2 times each.

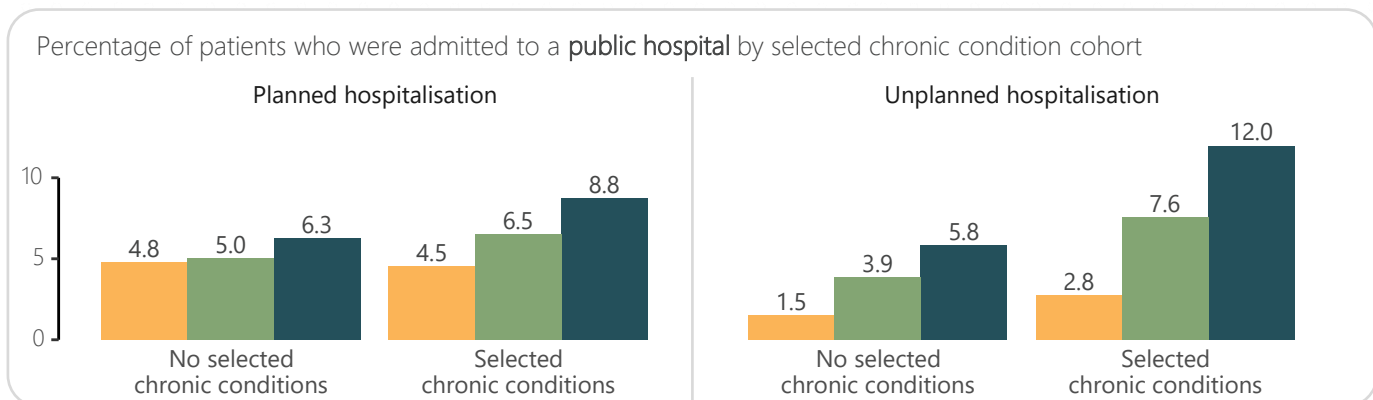
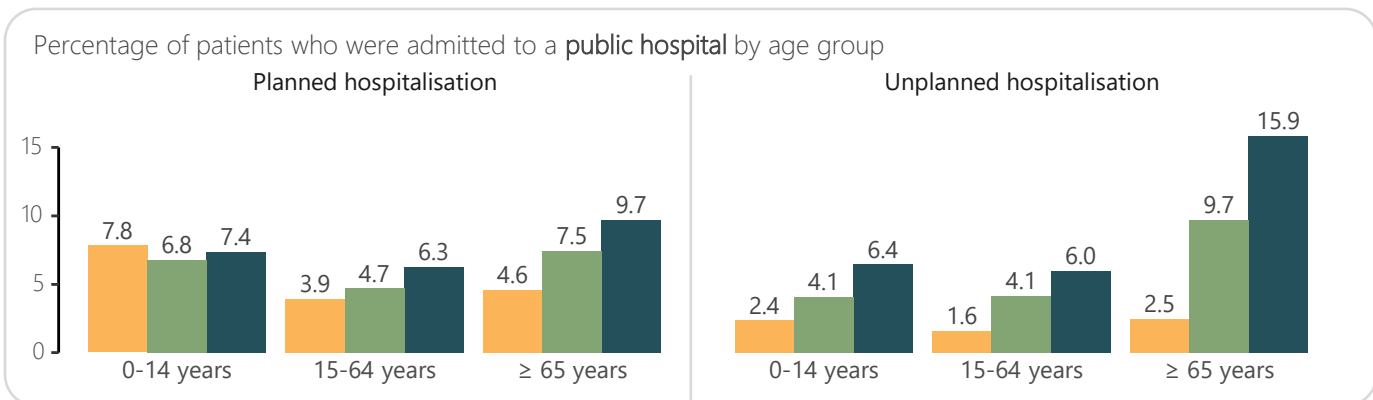
Planned and unplanned public hospital admissions

Whether your patients have planned or unplanned hospital admissions is important information for understanding the nature of their hospital admissions.



Public hospital admissions by patient cohorts

How did hospital admission vary in different patient cohorts in your practice? These charts show the proportion of patients admitted to a public hospital for any reason in the current reporting period by age or selected chronic condition cohort.



Note that some patients had multiple hospitalisations and may be counted in both the planned and unplanned percentages.

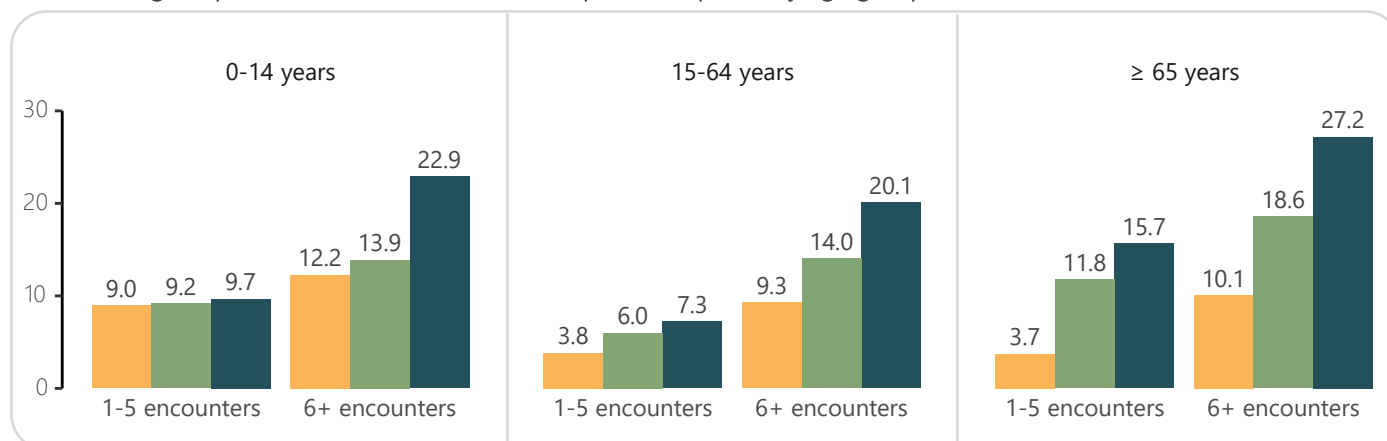
Hospital admissions and frequency of GP encounters

How does the frequency of GP encounters compare to hospital admissions? The charts below show the proportion of patients who had encounters with your practice in the current reporting period that were also admitted to hospital. This is shown by frequency of GP encounters for age group and selected chronic condition categories.

It may be helpful to reference this information with the chart on the top of page 7 which shows the overall encounter frequencies of your patients (encounter frequency by age group is presented below for context).

■ This practice ■ This PHN ■ All PHNs

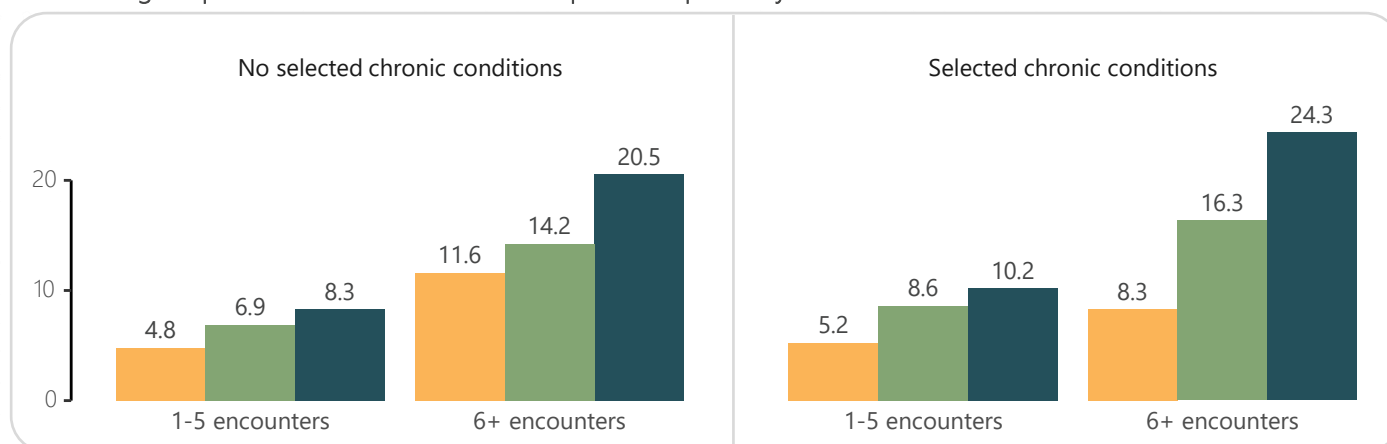
Percentage of patients who were admitted to a public hospital – by age group



Percentage of patients that had encounters with your practice – by age group

Age group (years)	GP encounters at this practice in the current reporting period			
	1-5		6+	
	Number	%	Number	%
0-14	245	14.4	49	2.9
15-64	811	47.7	312	18.4
≥ 65	134	7.9	149	8.8

Percentage of patients who were admitted to a public hospital – by selected chronic condition cohort

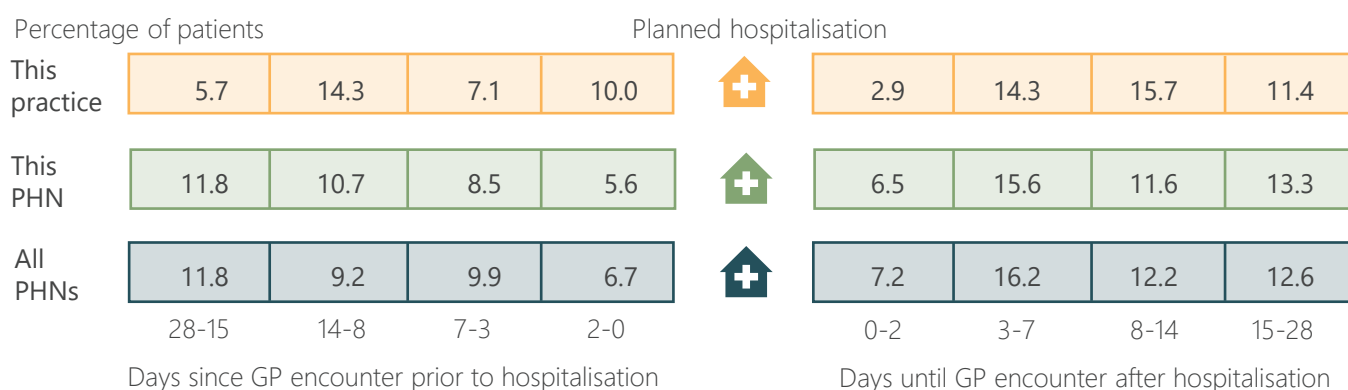


GP encounters are defined as doctor or nurse encounters.

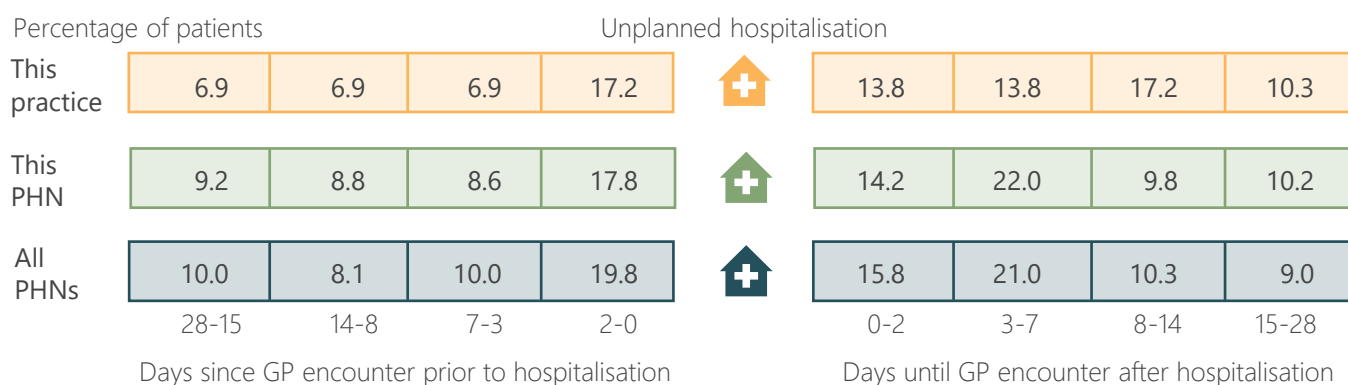
GP encounters around the time of a hospital admission

How do your patients interact with your care around the time they go to hospital? There were 95 patients who had encounters with your practice in the current reporting period and who also had admissions to hospital from November 2021 to August 2022*. Of these, 37 (38.9%) had an encounter with your practice within 28 days prior to their hospitalisation and 47 (49.5%) had an encounter within 28 days after their hospitalisation. There were 24 (25.3%) patients that had encounters with your practice both within 28 days prior to and within 28 days after their hospitalisation. The charts below show the proportion of patients that had GP encounters in the selected time periods before and after a hospitalisation. If a patient had multiple hospitalisations in the time period, the most recent one was selected.

There were 70 patients that had encounters with your practice in the current reporting period and also had a planned hospitalisation from November 2021 to August 2022*. The following proportion of these patients had encounters with this practice within 28 days before and 28 days after their planned hospitalisation.



There were 29 patients that had encounters with your practice in the current reporting period and also had an unplanned hospitalisation from November 2021 to August 2022*. The following proportion of these patients had encounters with this practice within 28 days before and after their unplanned hospitalisation.



When interpreting this information, you might consider the following:

The charts on this page might help you identify opportunities for the integration and coordination of care, depending on the unique context of your patients. When interpreting this information, you might consider the following:

- Is your practice in a rural or regional area with inherent challenges around access to services?
- Does the hospital / ED have your contact details?
- Do you receive timely discharge summaries?
- Can the hospital help facilitate a follow up appointment with you for your patients?
- Is there an opportunity to provide telehealth consults to facilitate continuity of care for patients unable to interact with your practice soon after discharge?
- Is there an opportunity locally to work together on pathways back to general practice? E.g. with local initiatives, alliances and working with your PHN?

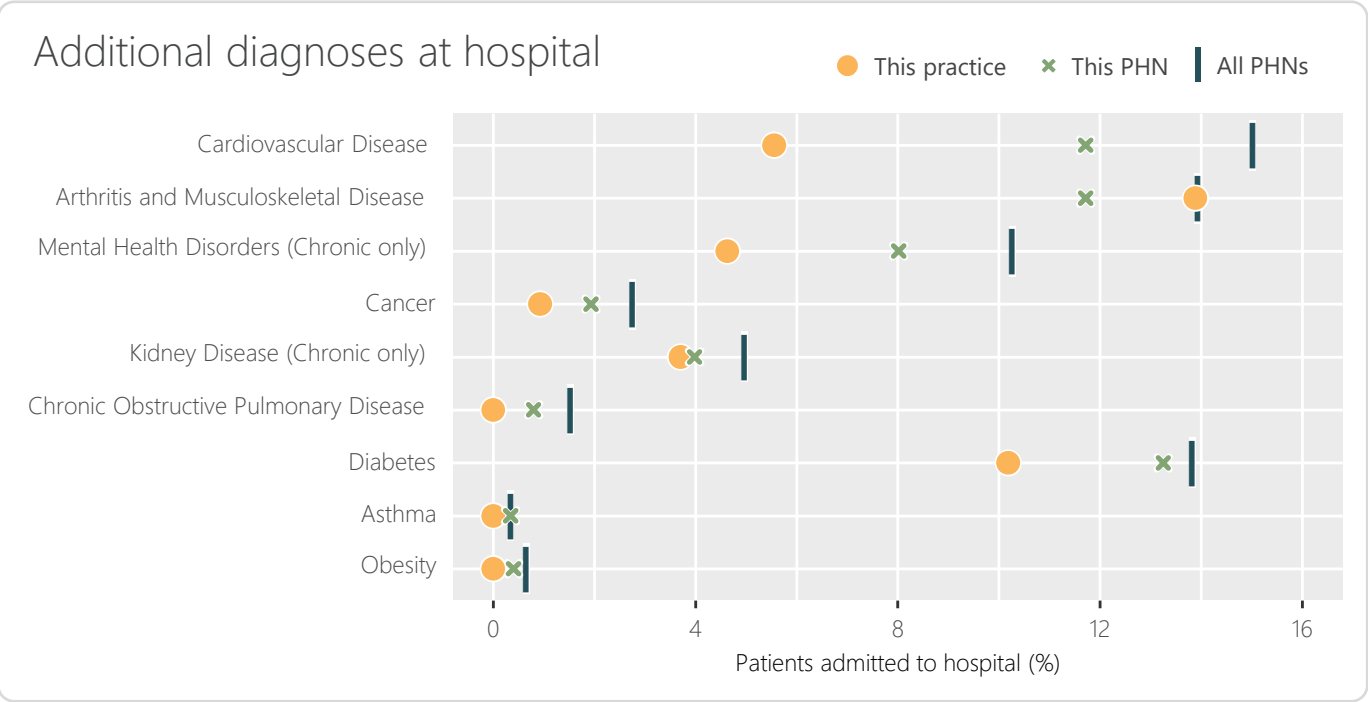
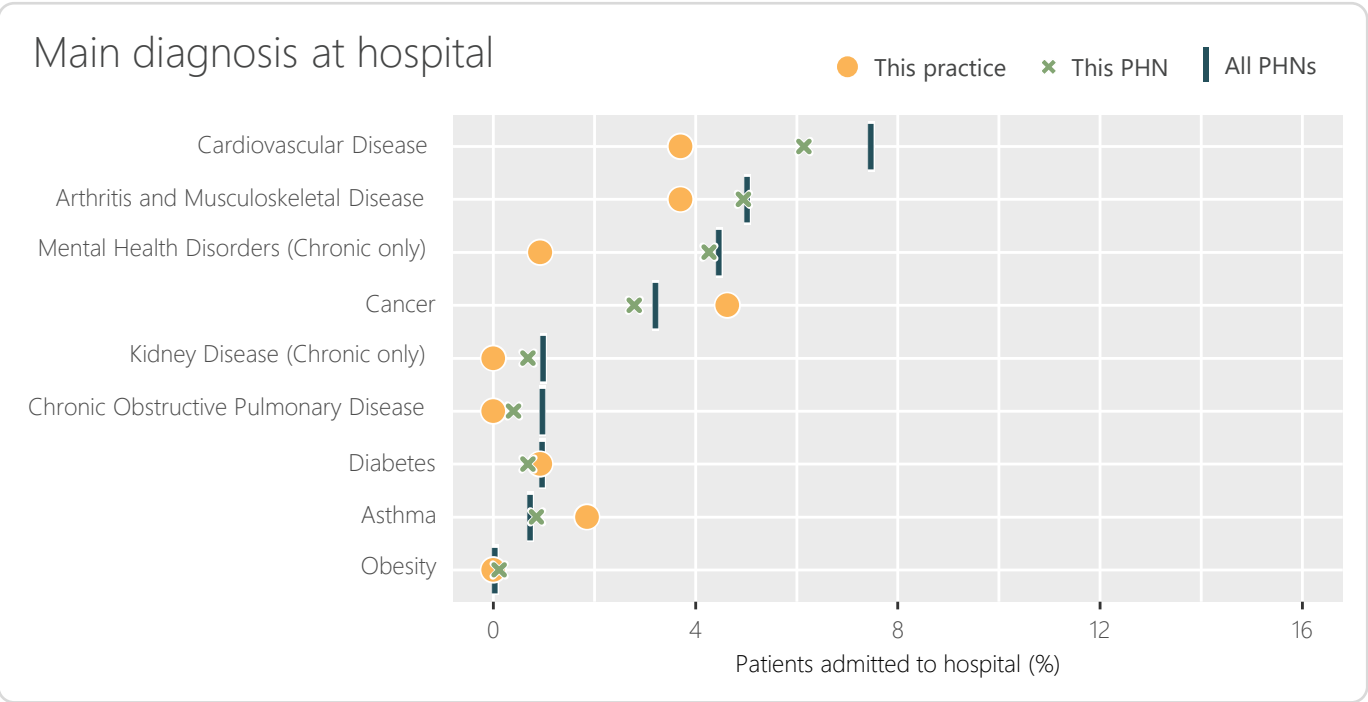
* Information about hospital admission time window available on page 25.

Reason for hospital admission by selected chronic conditions

There are many reasons that your patients may be admitted to hospital, and some of these may be useful for your service planning. Shortly after a hospitalisation, the patient’s record is reviewed and a clinical information manager assigns a principal diagnosis from the Australian clinical version of the International Classification of Diseases. This is the main reason for that hospital stay. There can also be additional diagnoses assigned that contributed to the hospital stay.

The main reason for being hospitalised is shown in the first chart. The second chart shows additional diagnoses. These are only diagnoses that were managed in the hospital admission and may not include conditions recorded in general practice. The charts below show hospitalisations for 9 selected chronic conditions.

There were 108 patients that had encounters with your practice in the current reporting period and were also admitted to a public hospital in the same 12 month period. The following proportion of these patients were admitted for the selected chronic conditions as either the main or additional diagnosis at hospital.



Notes: Some patients may have multiple chronic diagnoses in their additional hospital diagnoses, and therefore may be included in more than one row in the second chart. Patients may be included in one chart but not the other. For example, a patient hospitalised for a fractured hip but whose asthma condition contributed to the length of their hospitalisation will not be shown in the main diagnosis chart but will be included for the asthma condition in the second chart. This patient is included in the denominator for both charts.



Condition in focus:

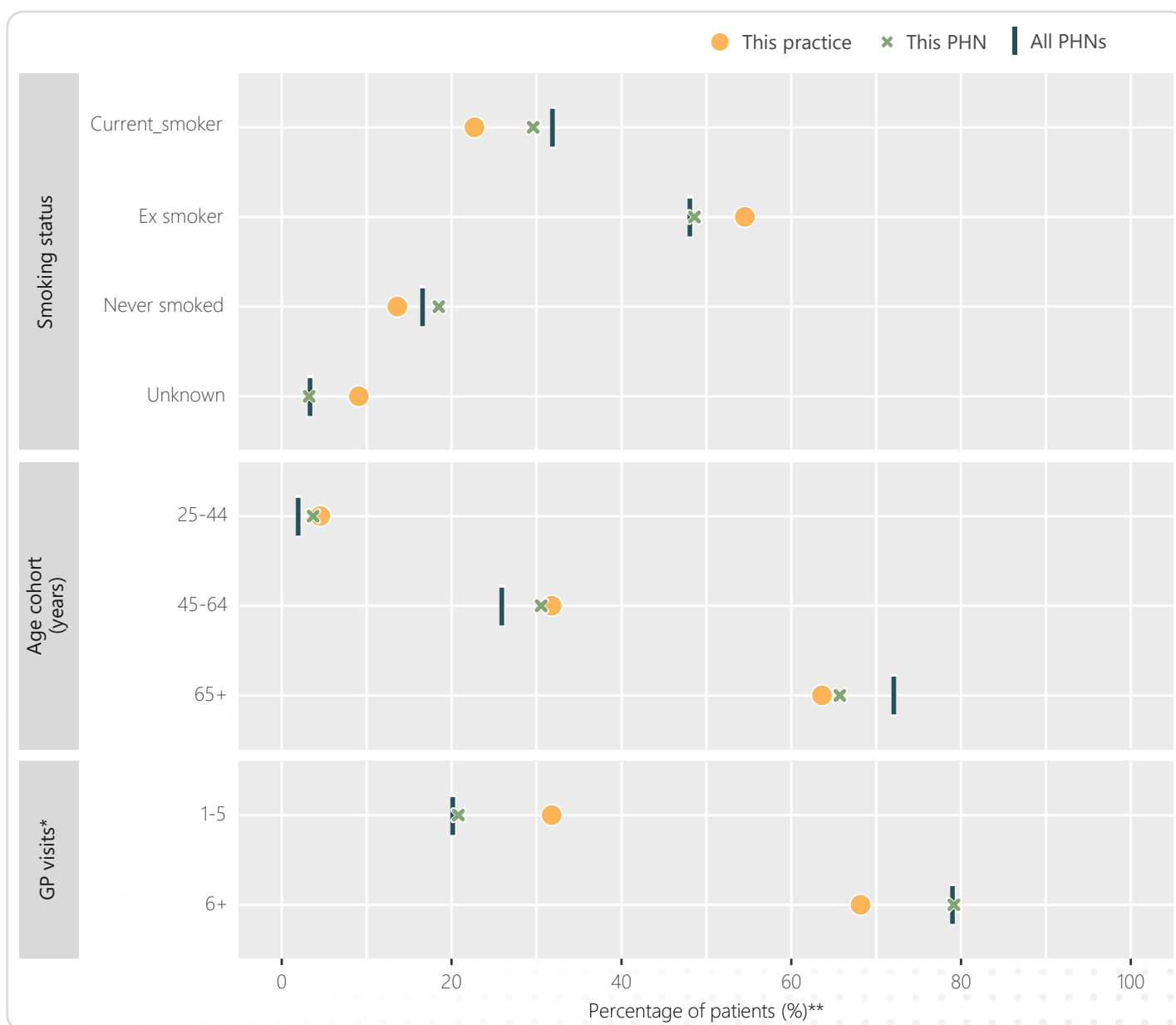
Chronic Obstructive Pulmonary Disease

Patients with chronic obstructive pulmonary disease (COPD) at your practice

COPD is a serious long-term lung disease that mainly affects older people, but also those who are still of working age. It is characterised by airflow limitation that is not fully reversible with bronchodilator medications¹. The main cause of COPD is smoking.

Among patients aged 25 years and older who had visited your practice in the current reporting period, 22 (1.3%) were coded as having *ever been diagnosed* in your practice with COPD. This compares to 1.7% among Lumos participating practices in this PHN. Coded COPD patients are identified using a yes/no COPD flag that Lumos received from your extraction vendor. This page provides a deeper insight into this COPD patient cohort.

The following graph shows the distribution of your patients with COPD by smoking status, age cohort and frequency of GP visits.



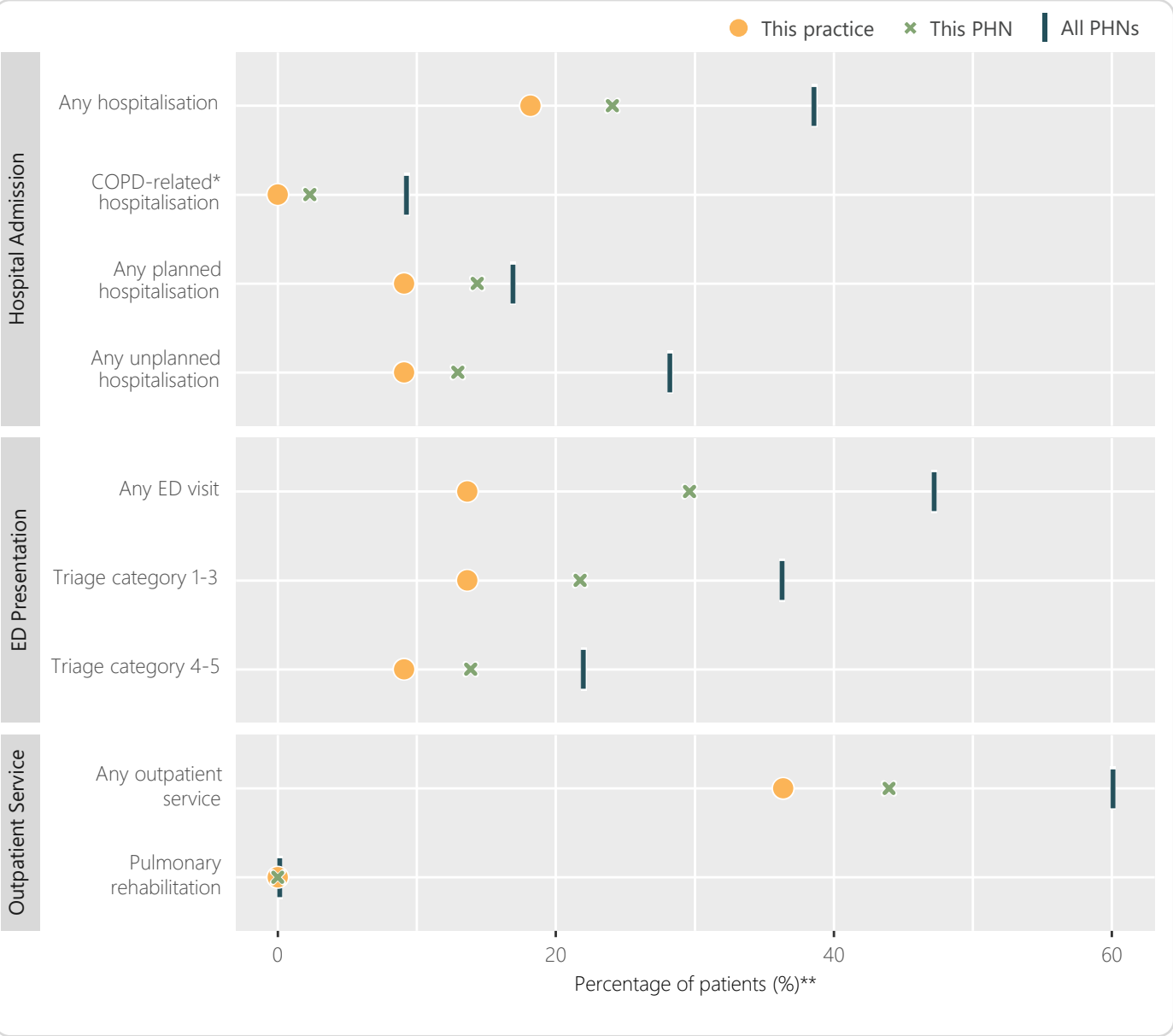
1. AIHW: Correll PK, Poulos LM, Ampon R, Reddel HK & Marks GB 2015. Respiratory medication use in Australia 2003–2013: treatment of asthma and COPD. Cat. no. ACM 31. Canberra: AIHW.

* In the current reporting period

** For patients aged 25 and over

NSW health service use among patients with COPD at your practice

Among patients aged 25 years and older coded as having COPD at this practice and who visited this practice in the current reporting period, the following proportion used other NSW health services in the same 12 month period.



Note that some patients have used multiple health services, and therefore will appear multiple times in this chart.
*COPD-related hospital diagnosis as the main or additional diagnosis
** For patients aged 25 and over

Information about your patients’ COPD in NSW health services

Of those patients who visited your practice in the current reporting period who were not coded as having COPD, 0 (0%) had a COPD related hospitalisation.

Key insights from Lumos



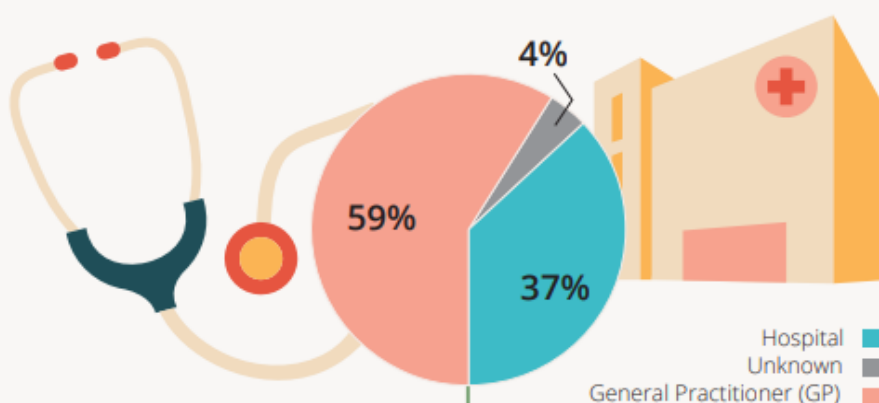
Impact of Diabetes Managed Early in General Practice

Emerging evidence suggests that detecting and managing diabetes in the general practice setting is associated with a lower risk of unplanned admissions to hospital. This highlights the importance of coordination between and continuity of care across the primary and acute care settings. Here we compare people over two years with diabetes that was first recorded in a general practice setting with those with diabetes that was first recorded in a hospital record.

Findings

Where diabetes diagnosis was first recorded

Diabetes diagnosis was much more commonly first recorded in the GP record



People with diagnosis first recorded at the GP

People with diagnosis first recorded in hospital

Where diabetes diagnosis is first recorded varies by people's characteristics, such as remoteness of residence



Over half in cities or regional centres.

Up to two thirds living in remote and very remote area.

Proactive care in the community was more common for people who had their first recorded diabetes diagnosis in the GP record



Over the 2-year study:
50% have antidiabetic medications prescribed.
More likely to have GP management plans and reviews.
More likely to have blood pressure, cholesterol and HbA1c recorded.

Over the 2-years,
27% have antidiabetic medications prescribed.

Presentation to hospital was less common among people who had their first recorded diabetes diagnosis in the GP record



Over the 2-year study:
• 16 GP visits
• 2 ED presentations
• 2 Hospital admissions
• 8 Outpatient services.

Over the 2-year study:
• 10 GP visits
• 2 ED presentations
• 4 Hospital admissions
• 12 Outpatient services.

Mortality was lower for people who had their first reported diagnosis in the GP record



4% mortality across the study period.

6% mortality across the study period.

Things to consider when interpreting this report

Every general practice is different and the interpretation of these reports is dependant on many factors including patient demographics and the context of your practice.

At several points in this report you will find suggestions and examples of how insights might be relevant to your general practice, including some additional ones below. Several of these examples draw on how other general practices have used their GP reports.

Some examples may not be relevant to you. We encourage you to share any feedback about these reports with your PHN or in your feedback survey, in particular, if your practice report has informed your quality improvement activities or decision making, to help others make the most of this unique information.

When interpreting chronic disease information, you might consider the following:

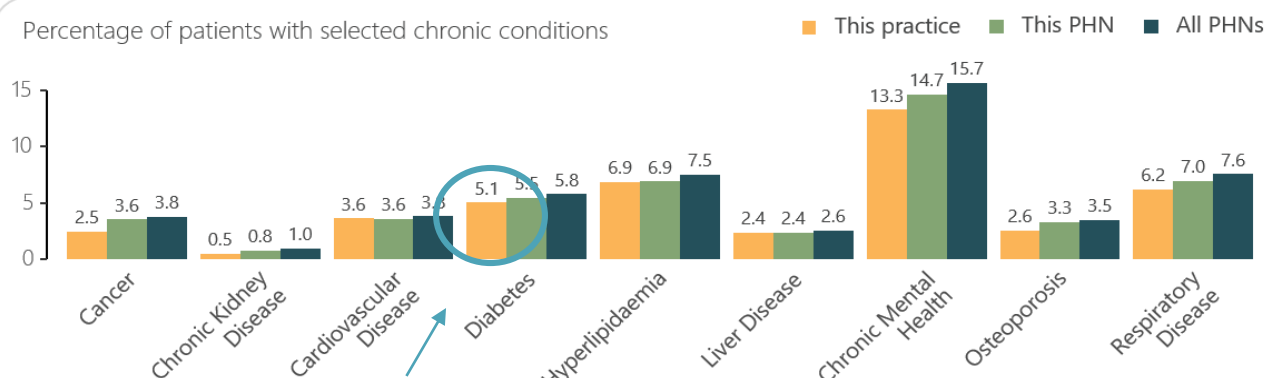
By comparing the proportion of patients with a chronic disease recorded in general practice or in hospital to those in your PHN or NSW, you might identify opportunities to:

- focus on a particular disease of relevance to your practice or region by running disease specific clinics or screening; or,
- use this information to identify patients not flagged with a certain condition.

For example, a practice might have fewer patients with diabetes compared to their region.

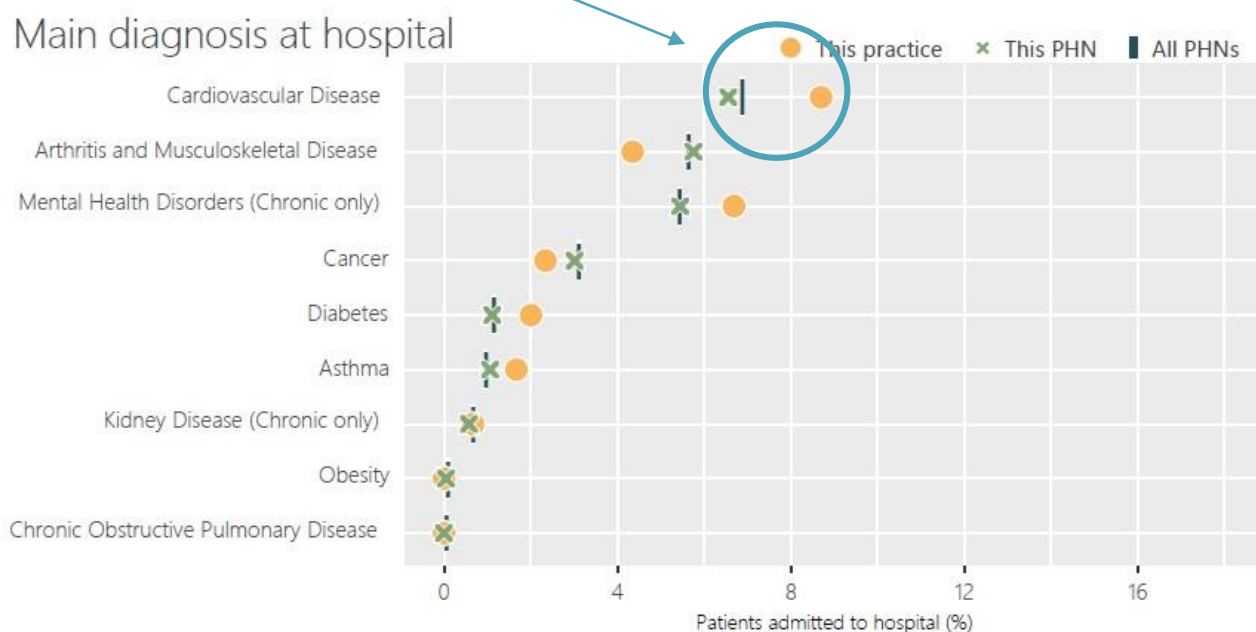
- You might be prompted to check in your records to see if there are patients not coded with diabetes but who potentially are diabetic
- Looking at your data might present opportunities for reviews and actions

Percentage of patients with selected chronic conditions



Examples provided for reference only

Main diagnosis at hospital



Appendix



Acknowledgements

Lumos would not be possible without the support of participating General Practices and Primary Health Networks.

These reports continue to improve with GP and PHN feedback. Please continue to provide feedback to the Lumos team through your PHN.

The Lumos program has been funded by the Commonwealth Government under the Health Innovation Fund.

It has been approved by the NSW Population and Health Services Ethics Committee.

Lumos links encoded data from GPs to other health data in NSW, including hospital, ED, mortality, and others. This is done under strict data governance processes and in partnership with the NSW Centre for Health Record Linkage (CHeReL) using innovative privacy preserving technology from Curtin University.

Additional information

Hospital diagnosis ICD-10-AM codes (Page 19)

Chronic hospital admissions were identified from the Australian Modification of the International Classification of Diseases version 10 (ICD-10-AM) codes as outlined below:

Chronic condition	ICD-10-AM Codes
Asthma	J45-J46
Arthritis and musculoskeletal disease	M chapter (excluding M86.0-M86.2)
Cancer	C chapter (excluding C44, C91.0, C91.2, C92.0, C92.2, C92.4-C92.6, C92.8, C93.0, C93.2, C94.0, C94.2, C94.4, C94.5, C95.0, C95.2), D45, D46, D47.1, D47.3-D47.5
Cardiovascular disease	I chapter (excluding I01, I21, I23, I24, I26.0, I30, I33, I40, I62.0, I84), Q20-Q28
Chronic obstructive pulmonary disease	J40-J44
Diabetes	E10-E11, E13-E14, O24.0, O24.1, O24.3, O24.4, O24.9
Kidney disease (chronic only)	E10.2, E11.2, E13.2, E14.2, I12-I13, I15.0, I15.1, N00-N08, N11-N12, N14-N16, N18-N19, N25-N28, N39.1, N39.2, Q60-Q63, T82.4, T86.1, Z49.0, Z94.0, Z99.2
Mental health disorders (chronic only)	F chapter (excluding F10.0, F11.0, F12.0, F13.0, F14.0, F15.0, F16.0, F17.0, F18.0, F19.0, F23, F43.0, F52.5, F84.2, F98.5, F98.6), G30, G47.0-G47.2, G47.8, G47.9, O99.3, R44, R45.0, R45.1, R45.4, R48, Z00.4, Z03.2, Z04.6, Z09.3, Z13.3, Z50.2, Z50.3, Z54.3, Z61.9, Z63.1, Z63.8, Z63.9, Z65.8, Z65.9, Z71.4, Z71.5, Z76.0
Obesity*	E66

*Hospitalisations for some conditions, such as obesity, may be underestimated.

<https://www.aihw.gov.au/getmedia/7dec4d0e-f50b-42f5-a548-4b9ded6b6313/15022.pdf.aspx?inline=true>.

General practice encounters

A GP encounter is defined in this report as an interaction with a doctor or nurse at your practice in the current reporting period. Patients may have also had encounters with other GPs during this time. Information on the encounters of your patients with other GPs is not included in your data. The PHN and all PHN level data will take into account patients that had encounters with multiple practices, where applicable.

Accessibility/remoteness index of Australia (ARIA)

The ARIA is a relative geographic measure of access to services, based on locality of residence. Further detailed information on ARIA can be found here:

<https://www.abs.gov.au/ausstats/abs@.nsf/mf/1270.0.55.005?OpenDocument>

Index of relative socio-economic advantage and disadvantage (IRSAD)

The IRSAD is used to rank geographic areas in accordance with their socio-economic advantage and disadvantage. Further detailed information on the IRSAD can be found at the following link:

[https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2033.0.55.001~2016~Main%20Features~SOCIO-ECONOMIC%20INDEXES%20FOR%20AREAS%20\(SEIFA\)%202016~1](https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2033.0.55.001~2016~Main%20Features~SOCIO-ECONOMIC%20INDEXES%20FOR%20AREAS%20(SEIFA)%202016~1)

Patient population demographics (Page 5)

ARIA and IRSAD are reported at the patient level. In this report these indexes are derived from geographical coding on the hospital or ED discharge record. If the patient did not have a hospital or ED record, the patient's postcode at their general practice is used. For 'This PHN' and 'All PHNs' calculations, the percentage of patients in each category are based on practices participating in the Lumos program.

ED presentation time window (Page 13)

ED presentations include those occurring from mid-October 2021 to mid-September 2022. This 11 month window allowed investigation of whether the patient had encounters with their GP within 14 days of their ED presentation during the entire reporting period.

For those patients who presented to the ED multiple times during this 11 month period, only the most recent ED presentation was included. For those who had encounters with the GP multiple times during this 12 month period, their most recent GP encounter prior to their ED presentation and their most recent GP encounter after ED presentation were considered.

If your practice had less than 12 months of data available, the mid-October date was changed to the date specified on page 3 of your report minus 14 days. The PHN and all PHN data used the full 11 month period.

Those patients who had encounters with their GP and presented to the ED on the same day are assumed to have had the encounters with their GP before presenting to the ED. They are included in the percentage for a GP encounter "0-2" days prior to their ED presentation.

Hospital admission time window (Page 18)

Admissions to hospital include those occurring from November 2021 to August 2022. This 10 month window allowed investigation of whether the patient had encounters with their GP within 28 days of their hospital admission during the entire reporting period.

For those patients who were admitted to hospital multiple times during this 10 month period, only the most recent hospitalisation was included. For those who had encounters with the GP multiple times during this 12 month period, their most recent GP encounter prior to their hospitalisation and their most recent GP encounter after their hospitalisation were considered.

If your practice had less than 12 months of data available, the November date was changed to the date specified on page 3 of your report minus one month. The PHN and all PHN data used the full 10 month time period.

Those patients who had encounters with their GP and were admitted to hospital on the same day are assumed to have had the encounters with their GP before being admitted to hospital. They are included in the percentage for a GP encounter "0-2" days prior to their hospitalisation.

Those patients who had encounters with their GP and left hospital on the same day are assumed to have had the encounters with their GP after leaving hospital. They are included in the percentage for a GP encounter "0-2" days after their hospitalisation.

Have your say

Your feedback is invaluable in ensuring the Lumos program and this practice report continues to meet the needs of general practices in NSW. We therefore seek your feedback to understand your experience in the program and opportunities for improvement.

Please complete the below survey within 2 weeks of receiving your practice report. Your feedback is anonymous and will be used by the Lumos team and your PHN to continue improving the program.

The survey will take less than 5 minutes to complete and can be accessed through the link or QR code below. If you cannot complete the survey electronically, please request a hard copy from your PHN.

Thankyou for your time taken to provide feedback on the Lumos program.

<https://www.surveymonkey.com/r/KW39N6D>

