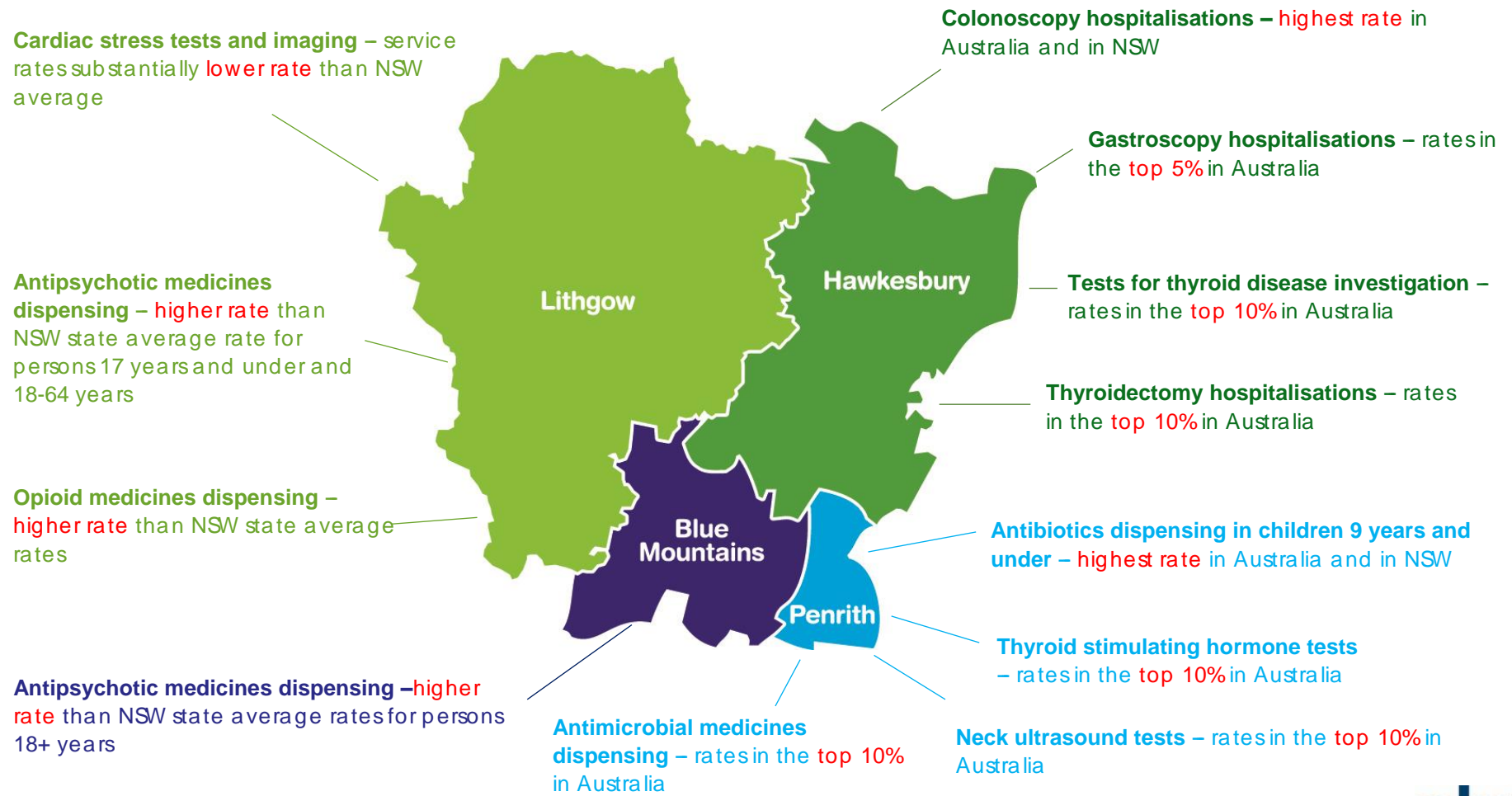


NBMPHN Regional Data to Inform your Quality Improvements

The [Third Australian Atlas of Healthcare Variation](#) (2018), contains some interesting and challenging data for all primary and specialist healthcare providers in the NBMPHN region.

How is the care of your patients affected by this information?



The [Third Australian Atlas of Healthcare Variation](#) released on 11 December 2018, contains some interesting and challenging data for all primary and specialist healthcare providers in the NBMPHN region.

- There are **significant variations from state and national averages** for locations within the Nepean Blue Mountains PHN region, which includes the local government areas of Blue Mountains, Hawkesbury, Lithgow and Penrith, for **Antibiotic prescribing** for children 9 yrs. and under; **Colonoscopy and Gastroscopy rates; Thyroid function testing, neck ultrasound and thyroidectomy rates, Cardiac stress testing rates;** and Dispensing rates for **Antimicrobial, Antipsychotic** and **Opioid medicines**.
- Although there are many potential explanations for these variations including the age-sex profile of practices within the NBM region, **each GP and specialist practice within the NBMPHN region, should consider auditing and analysing their own data against the region's summary data** as presented, and compare their activities to best practice guidelines.

Background

The Australian Atlas of Healthcare Variation series is published by the Australian Commission of Safety and Quality in Health Care, and maps healthcare use across Australia, with the aim to identify variation, promote investigation of the reasons for variation, and reduce unwarranted variation and promote appropriate care.

Rates of an intervention that are substantially higher or lower in some areas can highlight uncertainty about the intervention's place in therapy, gaps in accessible evidence for clinicians, inadequate system supports for appropriate care, and the need for changes in training or financial incentives.

The **Third Atlas** investigates healthcare use in four clinical areas: **paediatric and neonatal health, cardiac tests, thyroid investigations and treatments, and gastrointestinal investigations and treatments**. It also examines national patterns in **medicines use** over time for four common groups of medicines: **antipsychotics, opioids, antimicrobials** and medications for **attention deficit hyperactivity disorder (ADHD)**.

Two recurring patterns in the Atlas data suggest that **healthcare delivery in Australia is not matching patient need**, in that some groups with the highest burden of disease have the lowest rate of a related investigation or treatment, and in some areas, there are markedly higher rates of care, raising concern about the degree of benefit gained or potential harms.

What does the data look like in your region?

The data is grouped within regions into "SA3" (Statistical Area 3 groupings) based on the address of each person's residence. SA3s regions generally have a population of between 30,000 and 130,000 people. In regional areas, SA3s represent the area serviced by regional cities that have a population over 20,000 people.

[To view NSW State summary data against your SA3](#)

Commentary

- All SA3 locations within the NBMPHN region have been found to have some significant variations from state and national averages for some of the areas studied.
- The PHN recognises that there are many factors which impact on the following data, especially as it is based on person's place of residence.
- NBMPHN recommends that **each practice explore its own region data and compare it with its own practice data and against best practice guidelines**.

Summary of Third Australian Atlas of Healthcare Variation Data Relevant to NBMPHN

(based on 2015-2017 data)

Antibiotics prescriptions per 100,000 persons in children 9 years and under:

- National data: St Marys - **highest rate** (159,688) vs all SA3 geographical areas in NSW and Australia.
- State data: Other NBM locations with **higher rate** than the NSW average (101,950): Penrith (132,552), Richmond-Windsor (128,528), Rouse Hill – McGraths Hill (120,289), Hawkesbury (119,047).

Colonoscopy hospitalisations per 100,000 persons:

- National data: Hawkesbury - **highest rate** (4,607) vs all SA3 geographical areas in NSW and Australia.
- State data: Other NBM SA3 locations with **higher rate** than the NSW average (2,814): Richmond-Windsor (4,241) and Rouse Hill – McGraths Hill (4,195) - the **3rd and 4th highest rates** among all SA3 geographical areas in NSW.

Gastroscopy hospitalisations per 100,000 persons:

- National data: Hawkesbury - the **second highest rate** (3,208) vs all SA3 geographical areas in NSW and Australia.
- State data: Other NBM locations with **higher rate** than the NSW average (1,903): Rouse Hill – McGraths Hill (3,021) and Richmond-Windsor (2,808) - the **3rd and 4th highest rates** among all SA3 geographical areas in NSW.

Thyroid disease investigation and management per 100,000 persons 18 years and over:

MBS-subsidised services for **thyroid stimulating hormone** tests:

- State data: NBM locations with **higher rate** than the NSW average (30,640): St Marys (37,597) – 1st decile in AUS, Rouse Hill – McGraths Hill (36,336) – 1st decile in AUS, Richmond-Windsor (33,389), Penrith (32,458) and Hawkesbury (32,123)

MBS-subsidised services for **thyroid function tests**:

- State data: NBM locations with **higher rate** than the NSW average (13,234): Hawkesbury (15,413) – 1st decile in AUS, Rouse Hill – McGraths Hill (15,020) – 1st decile in AUS, Richmond-Windsor (14,464), St Marys (14,301), Penrith (14,300) and Blue Mountains (13,425).

MBS-subsidised services for **neck ultrasound tests**:

- State data: NBM locations with **higher rate** than NSW average (1,946): Rouse Hill – McGraths Hill (2,410), St Marys (2,279), Hawkesbury (2,171) and Penrith (2,110) – all in the 1st decile in AUS

Thyroidectomy hospitalisations:

- State data: NBM locations with **higher rate** than the NSW average (68): Rouse Hill – McGraths Hill (89) – 1st decile in AUS, Hawkesbury (83) – 1st decile in AUS, Penrith (74) and St Marys (73).

MBS-subsidised services for cardiac stress tests and imaging per 100,000 persons:

- State data: NBM locations with **higher rate** than the NSW average (6,673): Rouse Hill – McGraths Hill (9,890), Richmond-Windsor (8,344), St Marys (8,018) and Hawkesbury (7,822).
- State data: Service rates for Lithgow-Mudgee SA3 (3,634) were substantially **lower rate** than the NSW average

Antimicrobial medicines dispensing per 100,000 persons of all ages:

- State data: NBM locations with **higher rate** than NSW state-average for **all antimicrobials** (118,787): St Marys (156,247), Penrith (146,645), Richmond-Windsor (145,501), Hawkesbury (141,696), and Rouse Hill – McGraths Hill (135,309)
- State data: NBM locations with **higher rate** than NSW state-average for **Amoxicillin** (23,121): St Marys (33,564), Penrith (28,884), Richmond-Windsor (25,801), Rouse Hill – McGraths Hill (24,417), and Hawkesbury (24,008)
- State data: NBM locations with **higher rate** than NSW state-average for **Amoxicillin-clavulanate** (20,362): St Marys (32,543), Penrith (28,885), Rouse Hill – McGraths Hill (27,078), Richmond-Windsor (26,422), Lithgow-Mudgee (25,454) and Hawkesbury (25,223)

Antipsychotic medicines dispensing per 100,000 persons:

- State data: NBM locations *higher rate* than NSW state average, for persons:
 - 17 years and under:
St Marys (3,633), Richmond-Windsor (2,917), Lithgow-Mudgee (2,761) and Penrith (2,684) vs. NSW (2,626)
 - **18-64 years:**
Lithgow-Mudgee (24,255), Blue Mountains (23,387), St Marys (20,232) and Penrith (19,538) vs. **NSW** (19,531)
 - **65+ years:**
Blue Mountains (30,395), Penrith (39,363), Richmond-Windsor (29,227) and St Marys (25,596) vs. **NSW** (25,350)

Opioid medicines dispensing per 100,000 persons:

- National data: NBM locations *higher rate* than Australian (58,595) and NSW state average (52,260):
Lithgow-Mudgee (71,662), St Marys (67,969), Penrith (62,979), Hawkesbury (62,382), Richmond-Windsor (61,562) and Blue Mountains (56,288)