

AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE

Cardiovascular conditions

The Second Australian Atlas of Healthcare Variation

2017



The Australian Atlas of Healthcare Variation series



AUSTRALIAN COMMISSION
ON **SAFETY AND QUALITY** IN HEALTH CARE



Interactive Atlas Platform

The Australian Atlas of Healthcare Variation

Mapping variation is an invaluable tool for understanding how our healthcare system is providing care. The Australian Atlas of Healthcare Variation series illuminates variation by mapping use of health care according to where people live. Each Atlas identifies specific achievable actions for exploration and quality improvement.

Healthcare Variation - what does it tell us?

Some variation is expected and associated with need-related factors such as underlying differences in the health of specific populations, or personal preferences. However, the weight of evidence in Australia and internationally suggests that much of the variation documented in the Atlas is likely to be unwarranted. Understanding this variation is critical to improving the quality, value and appropriateness of health care.

The Second Australian Atlas of Healthcare Variation data set specifications are available at [METeOR](#)

The First Australian Atlas of Healthcare Variation data set specifications are available at [METeOR](#)

Interactive Atlas

**The First
Australian Atlas
of Healthcare
Variation**

2015



Interactive Atlas

**The Second
Australian Atlas
of Healthcare
Variation**

2017



Interactive Atlas



Second Australian Atlas of Healthcare Variation

Examines variation nationally in 18 clinical items, grouped into 4 themes



Chronic disease and infection

- Chronic obstructive pulmonary disease (COPD)
- Heart failure
- Cellulitis
- Kidney and urinary tract infections
- Diabetes complications



Cardiovascular conditions

- Acute myocardial infarction
- Atrial fibrillation



Women's health and maternity

- Hysterectomy
- Endometrial ablation
- Cervical loop excision or cervical laser ablation
- Vaginal deliveries with third or fourth degree perineal tear
- Caesarean section, ages 20 to 34 years



Surgical interventions

- Knee replacement
- Lumbar spinal decompression
- Lumbar spinal fusion
- Laparoscopic cholecystectomy
- Appendicectomy
- Cataract surgery





Australian Commission on Safety and Quality in Health Care

- Australian Government agency – COAG Funded Agency
- Leads & coordinates national improvements in safety & quality of health care based on best available evidence
- Works in partnership with patients, consumers, clinicians, managers, policy makers & health care organisations
- Aims to ensure that the health system is sustainable, better informed, supported & organised to deliver safe & high quality care





Inside this toolkit

- Why does variation matter?
- How is variation measured in the Atlas?
- How is variation presented in the Atlas?
- Cardiovascular conditions: key findings
- Conclusion
- Further resources.





Why does variation matter?

- Large variations in healthcare use have been documented by researchers around the world for many years
- A proportion of this variation is termed '*unwarranted*'
- Unwarranted variation:
 - is unrelated to patient need or preference
 - may signal inappropriate care
 - may signal ineffective use of resources
- It raises questions about appropriateness of care, health system efficiency, equity and access
- Can highlight opportunities for further investigation and for the health system to improve.





How is variation measured in the Atlas?

- Healthcare use is mapped **by residence of patient** (not location of the healthcare provider)
- Location of residence mapped to Statistical Area Level 3 (SA3)
- Data are **age- and sex-standardised**
- Data sources used:
 - National Hospital Morbidity Database (NHMD)
 - National Perinatal Data Collection (NPDC)
- Data analysis and extraction performed by the Australian Institute of Health and Welfare (AIHW).





How is variation presented in the Atlas?

- Data are presented in maps and graphs
- For items where there were small numbers, three years of data have been presented
- Statistical Area Level 3 data is presented for:
 - state and territory analysis
 - remoteness and socioeconomic disadvantage
- State and territory level data is presented for:
 - Aboriginal and Torres Strait Islander Australian status
 - public and private patient funding status.





Cardiovascular conditions: key findings

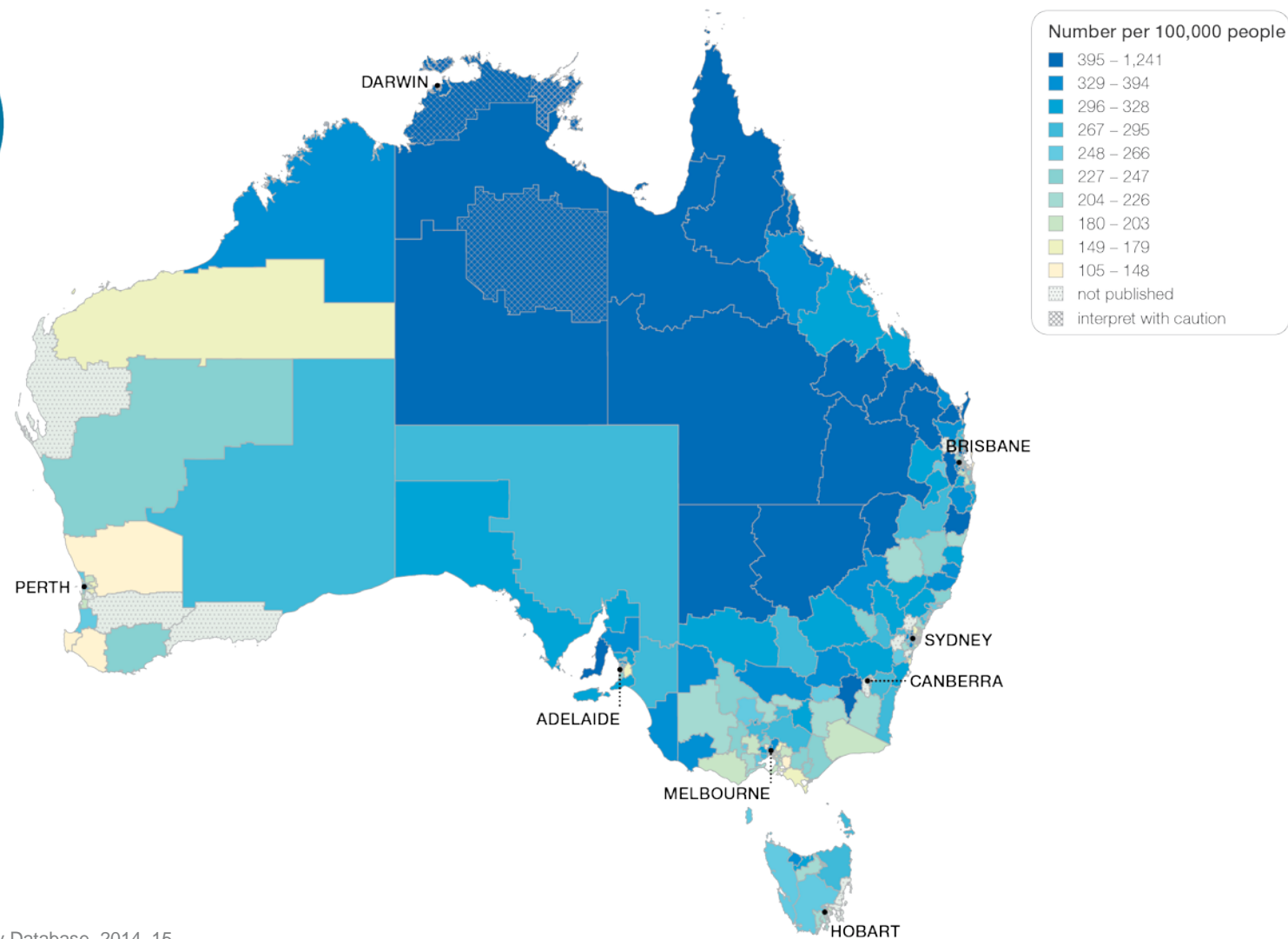
Data item	Range across SA3s per 100,000 people	Times difference	Times difference excluding top and bottom 10%	Number over one year
2.1 Acute myocardial infarction Hospitalisations, people aged 35–84 years	105 to 905	8.6	2.6	32,388
2.2 Atrial fibrillation Hospitalisations, people aged 35 years and over	192 to 740	3.9	1.7	58,608

National Hospital Morbidity Database, 2014–15



2.1 Acute myocardial infarction hospitalisations 35–84 years

8.6x
AS HIGH
in the highest rate area
compared to the
lowest rate area



National Hospital Morbidity Database, 2014–15

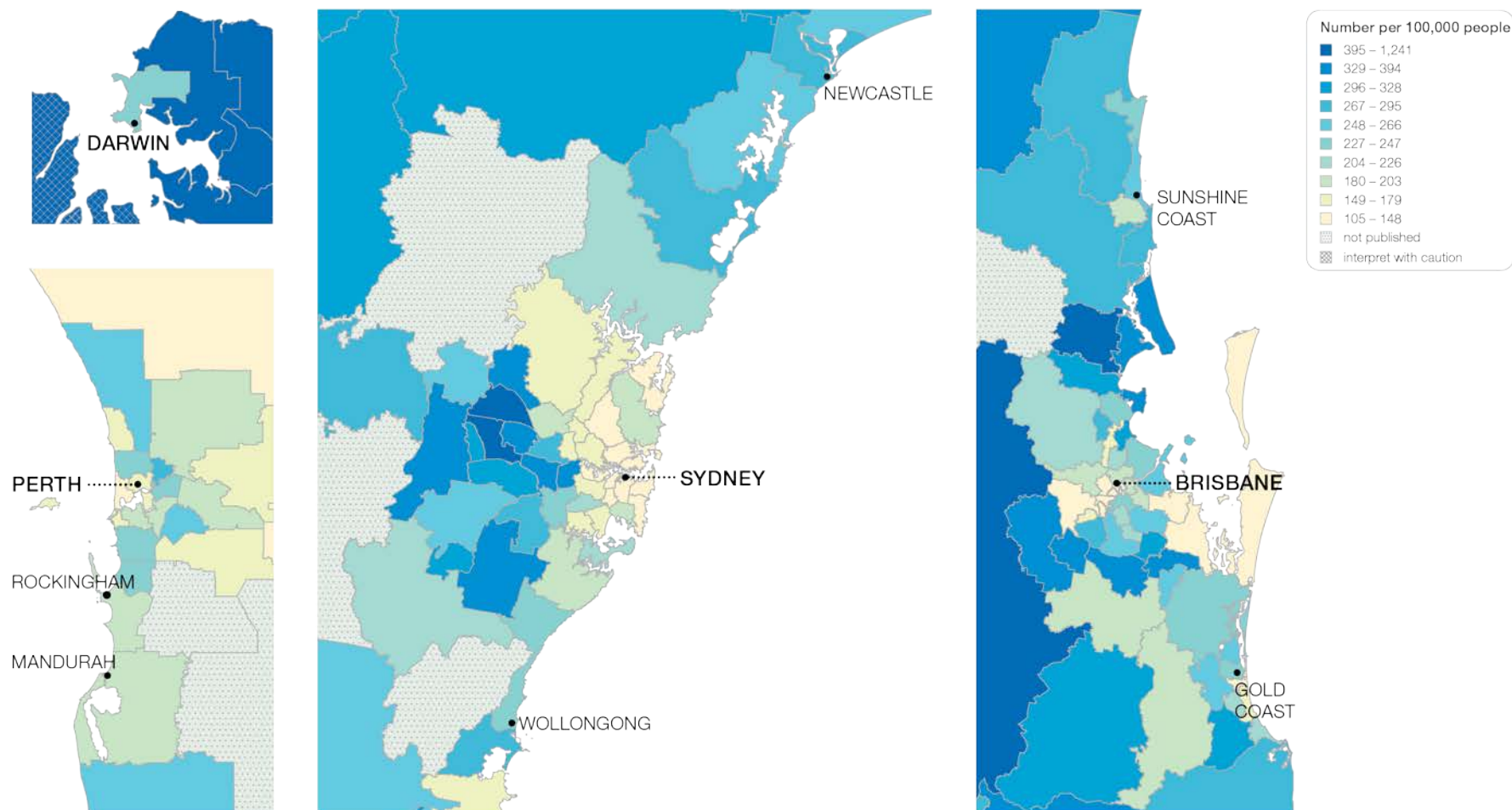


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2.1 Acute myocardial infarction hospitalisations 35–84 years



National Hospital Morbidity Database, 2014–15

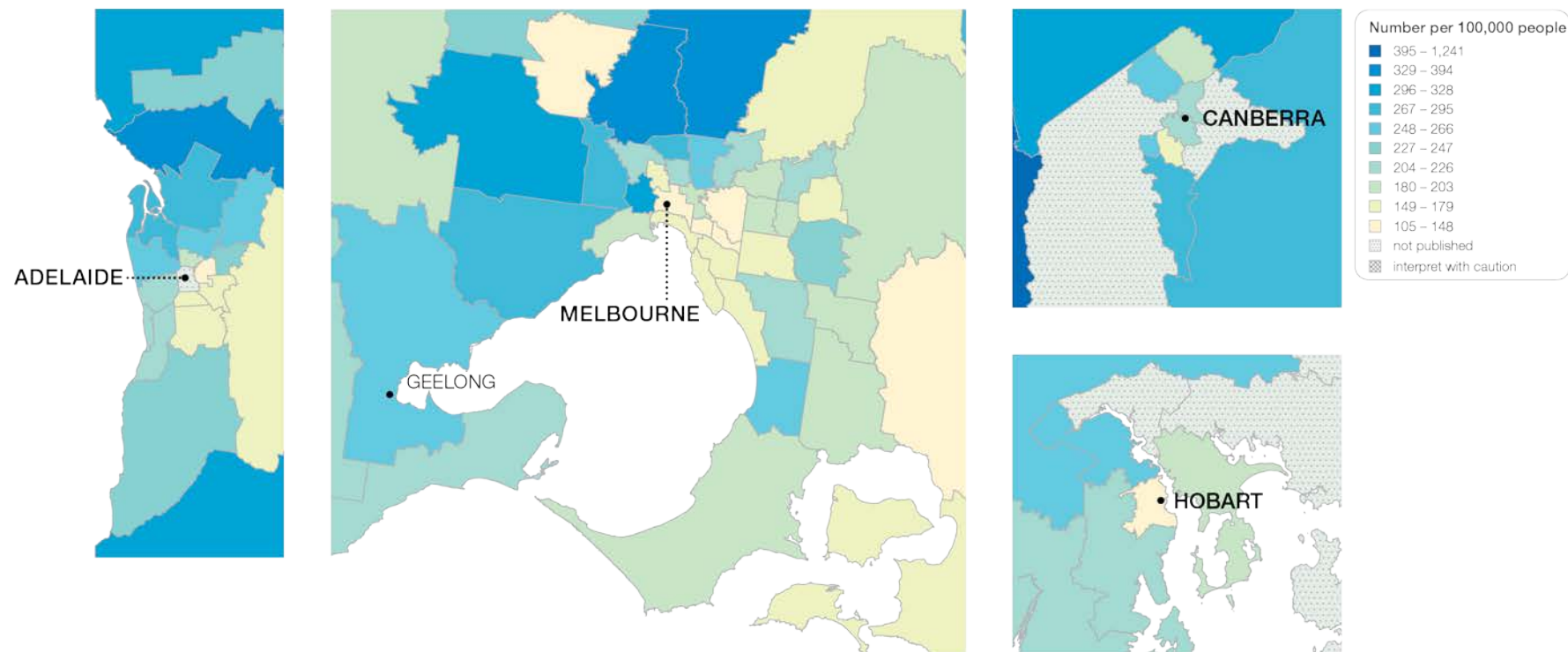


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2.1 Acute myocardial infarction hospitalisations 35–84 years

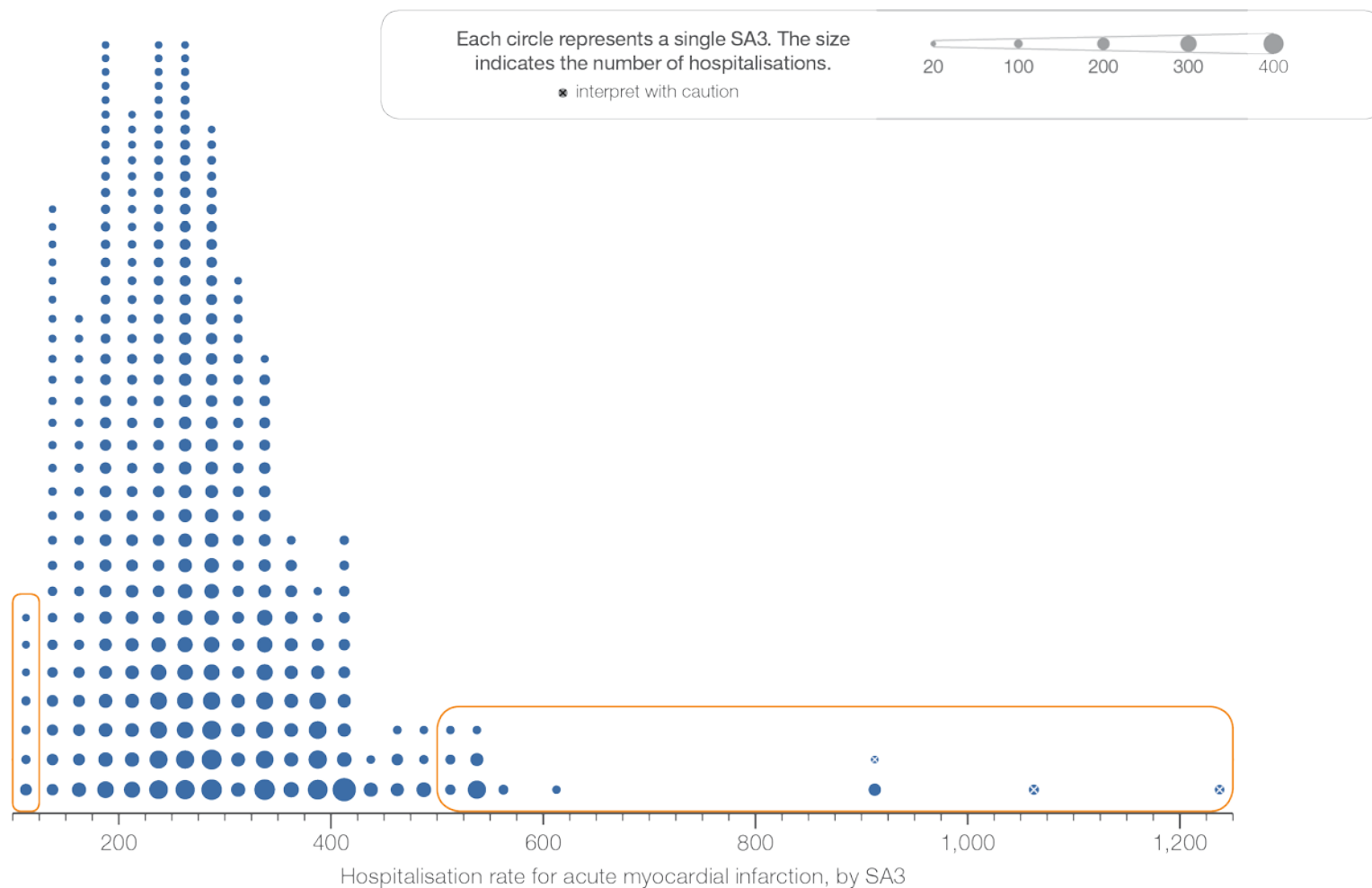


National Hospital Morbidity Database, 2014–15





2.1 Acute myocardial infarction hospitalisations 35–84 years



National Hospital Morbidity Database, 2014–15

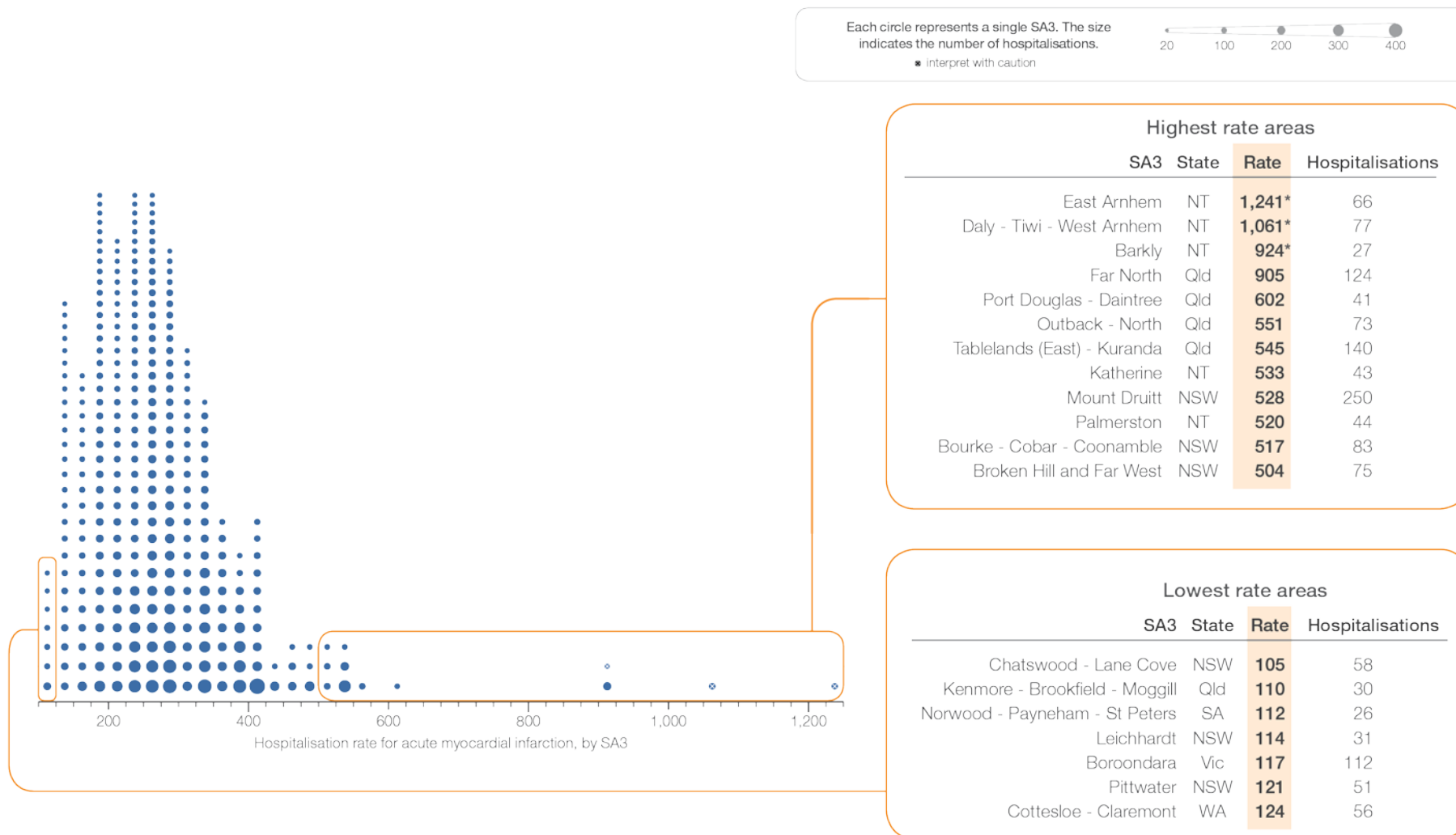


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2.1 Acute myocardial infarction hospitalisations 35–84 years



National Hospital Morbidity Database, 2014–15





2.1 Acute myocardial infarction hospitalisations 35–84 years

Aboriginal and Torres Strait Islander status



National Hospital Morbidity Database, 2014–15



Cardiovascular conditions

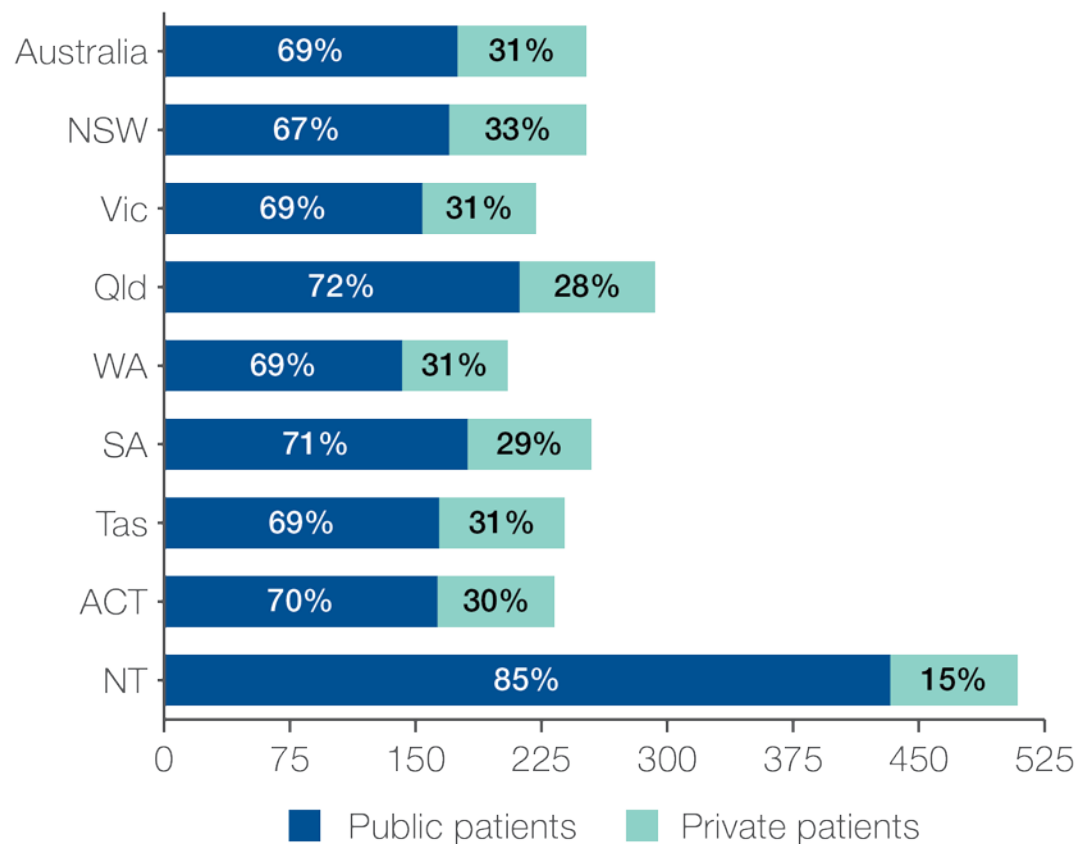
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2.1 Acute myocardial infarction hospitalisations 35–84 years

Patient funding status



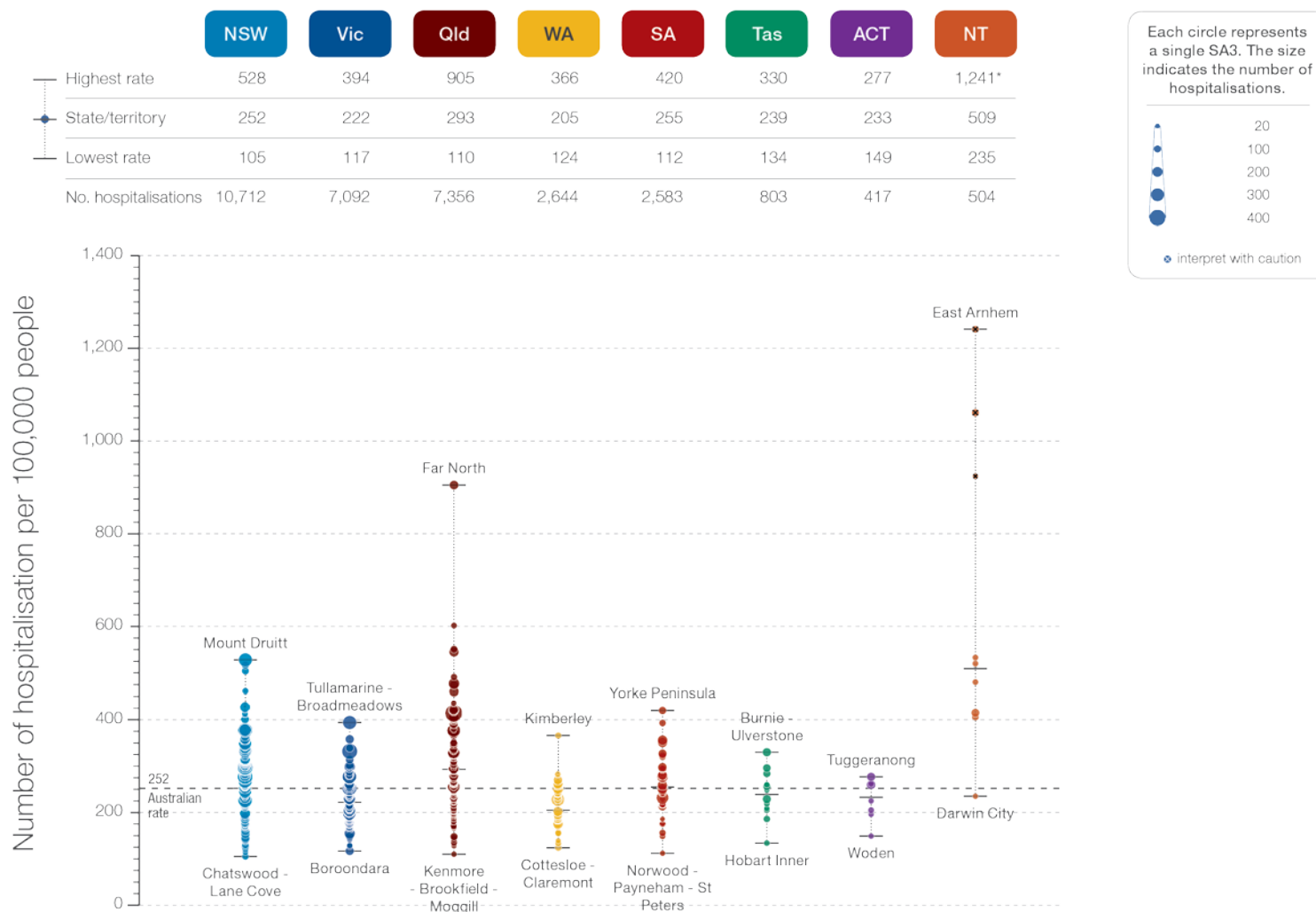
Number of hospitalisations per 100,000 people

National Hospital Morbidity Database, 2014–15



2.1 Acute myocardial infarction hospitalisations 35–84 years

State and territory



National Hospital Morbidity Database, 2014–15



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2.1 Acute myocardial infarction hospitalisations 35–84 years

Remoteness and socioeconomic status



National Hospital Morbidity Database, 2014–15



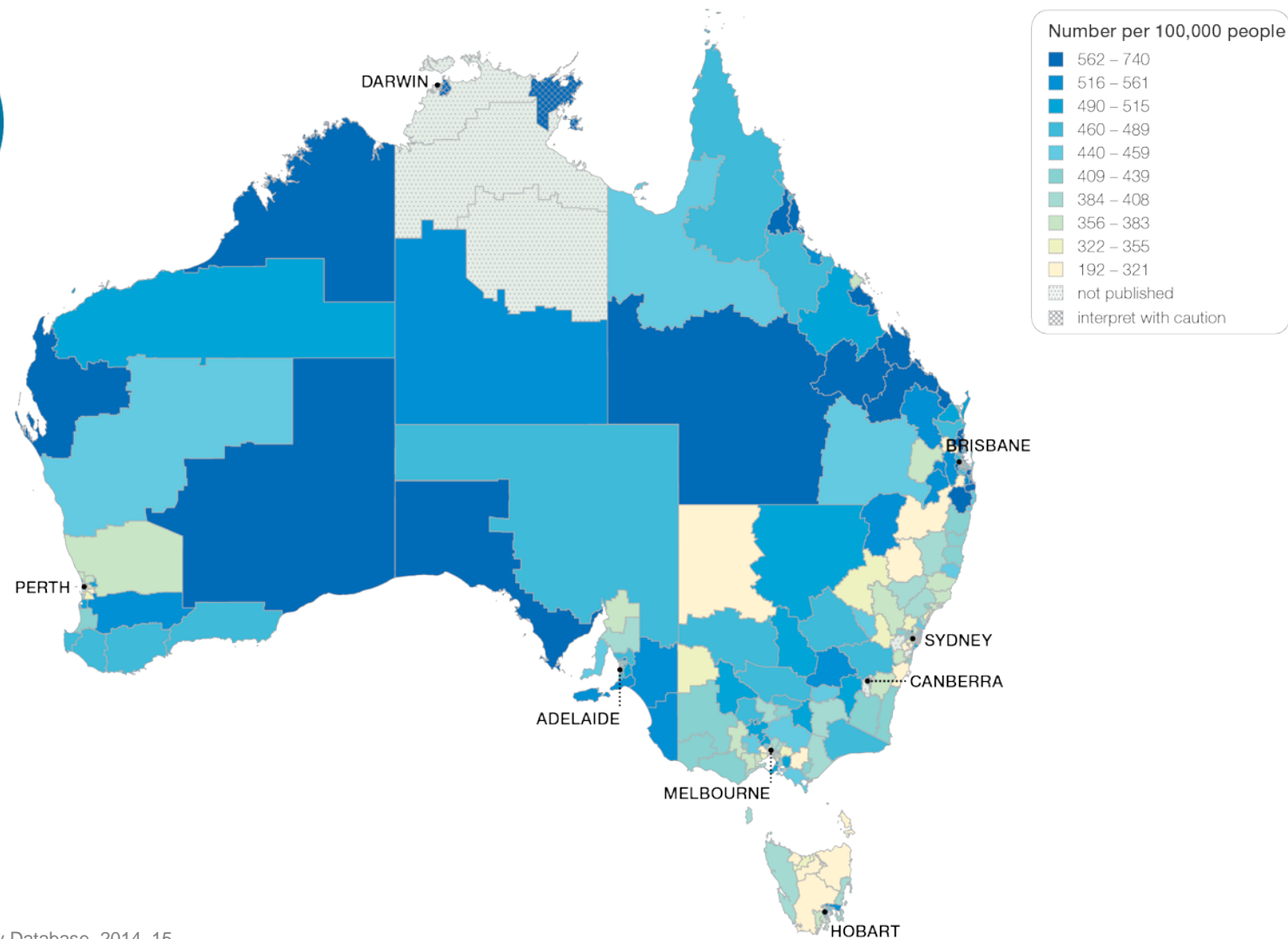
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2.2 Atrial fibrillation hospitalisations 35 years and over

3.9x
AS HIGH
in the highest rate area
compared to the
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National Hospital Morbidity Database, 2014–15

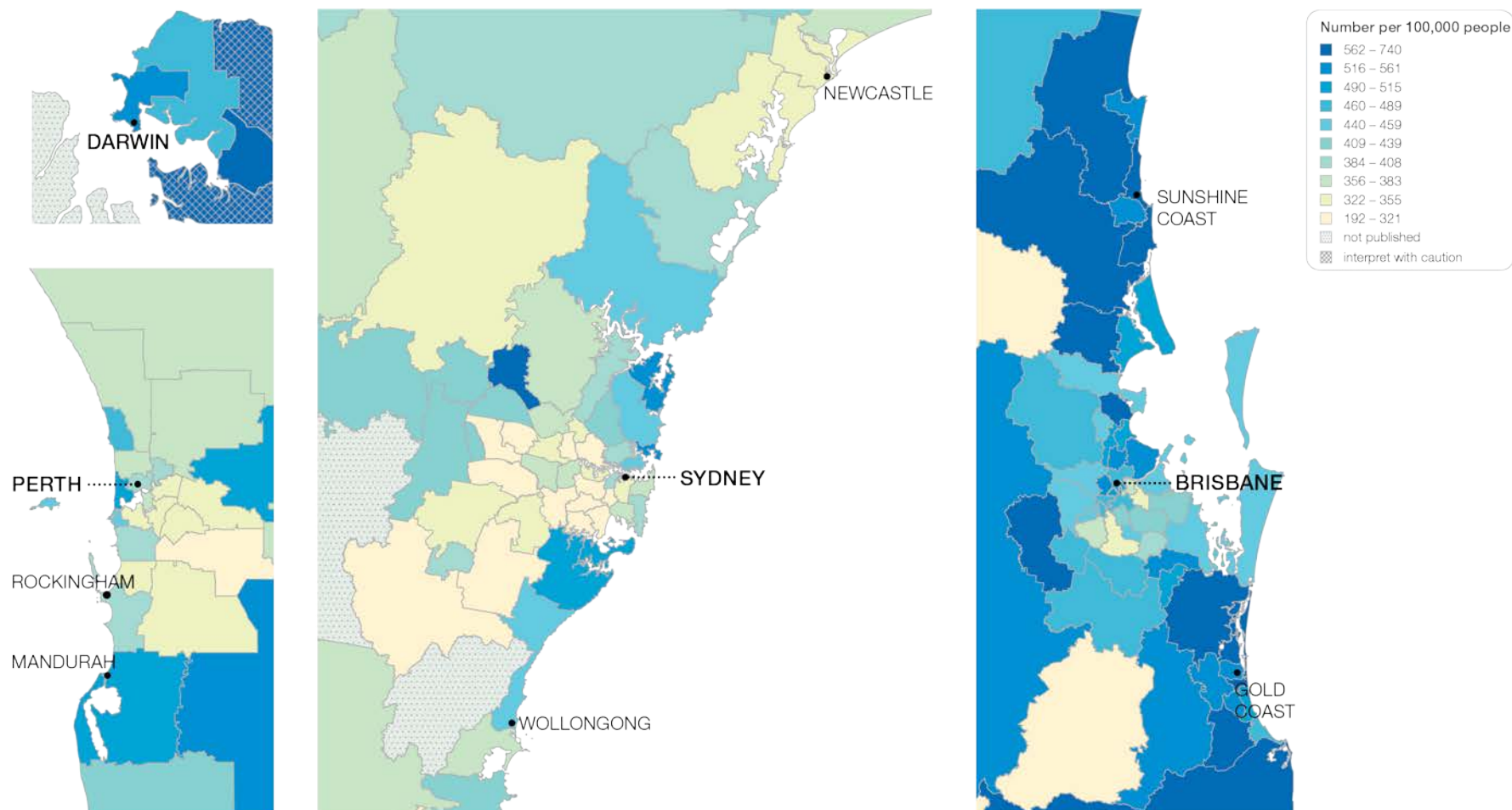


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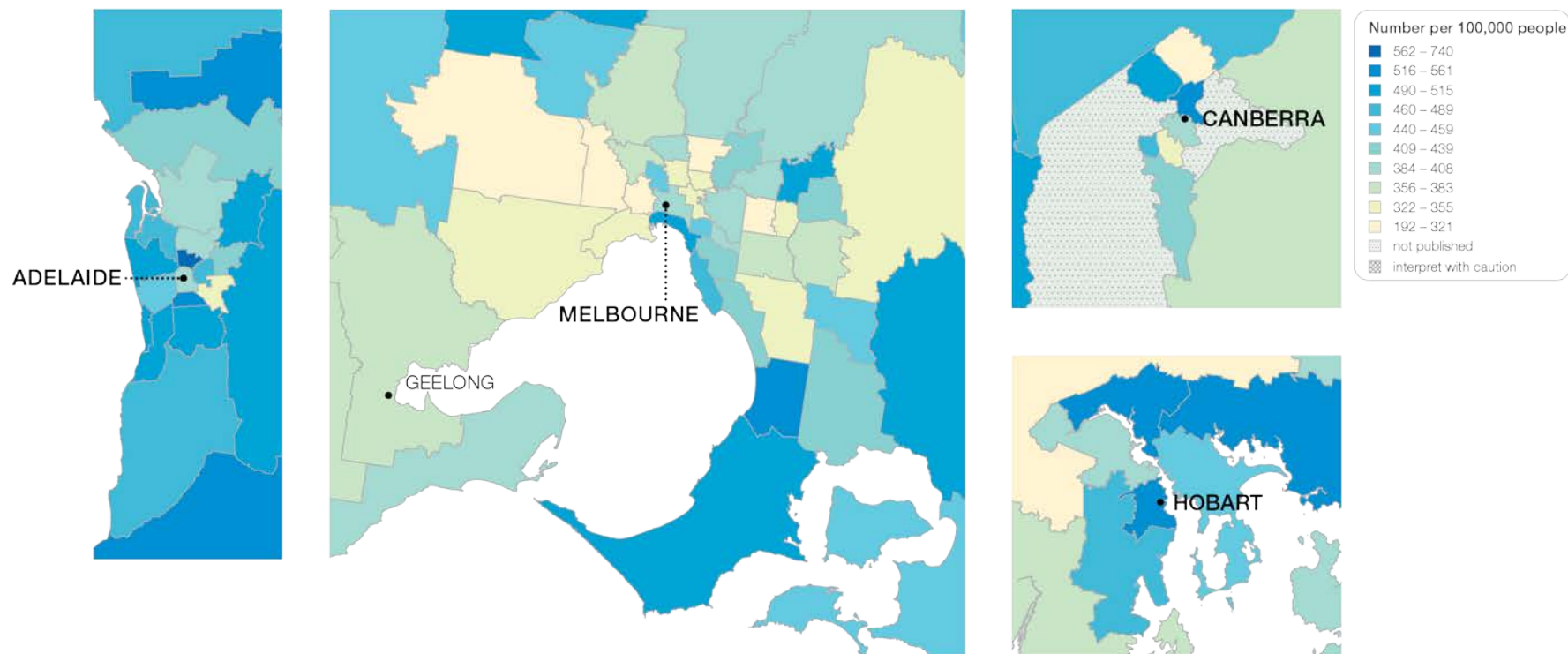
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National Hospital Morbidity Database, 2014–15



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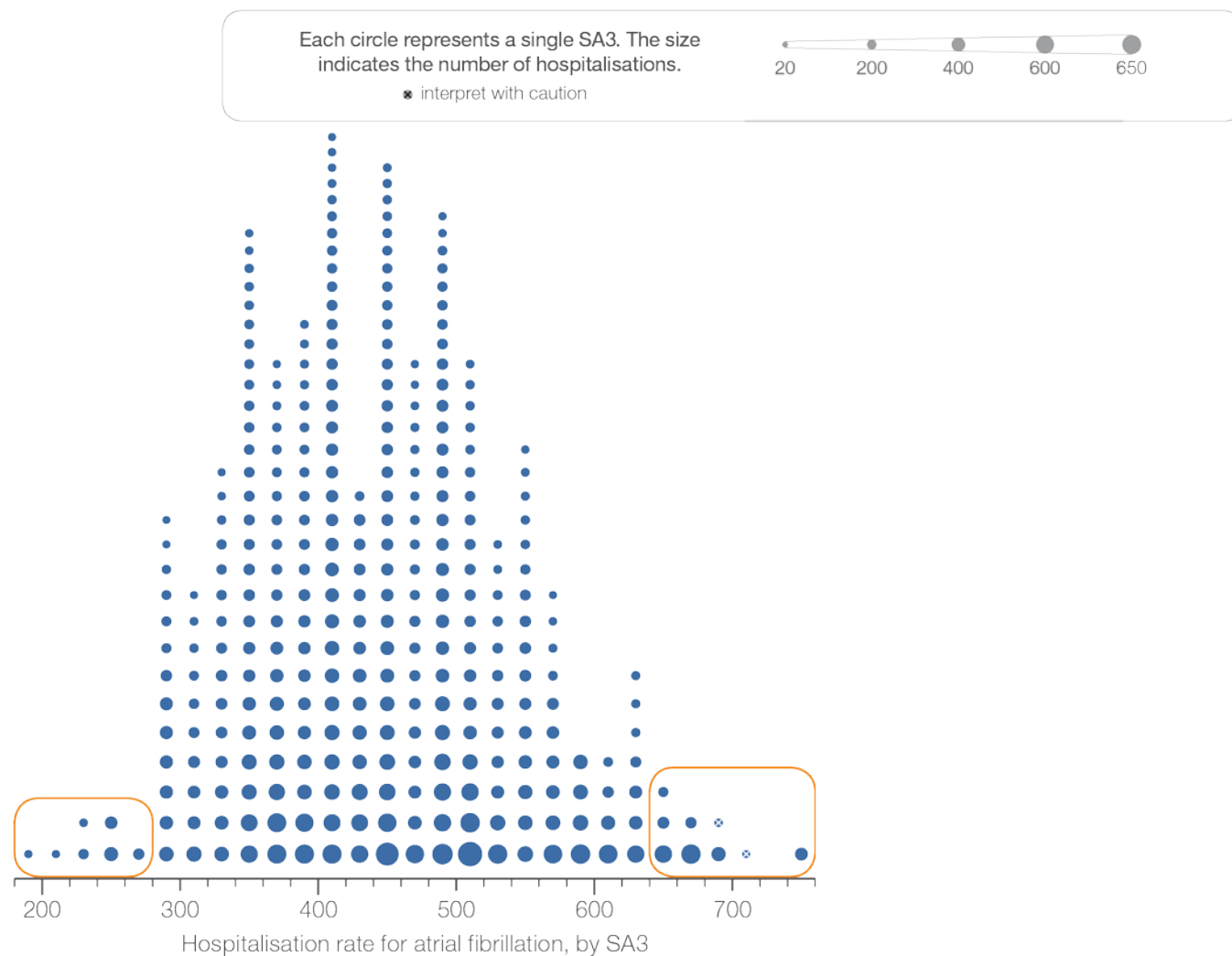


National Hospital Morbidity Database, 2014–15





2.2 Atrial fibrillation hospitalisations 35 years and over



National Hospital Morbidity Database, 2014–15

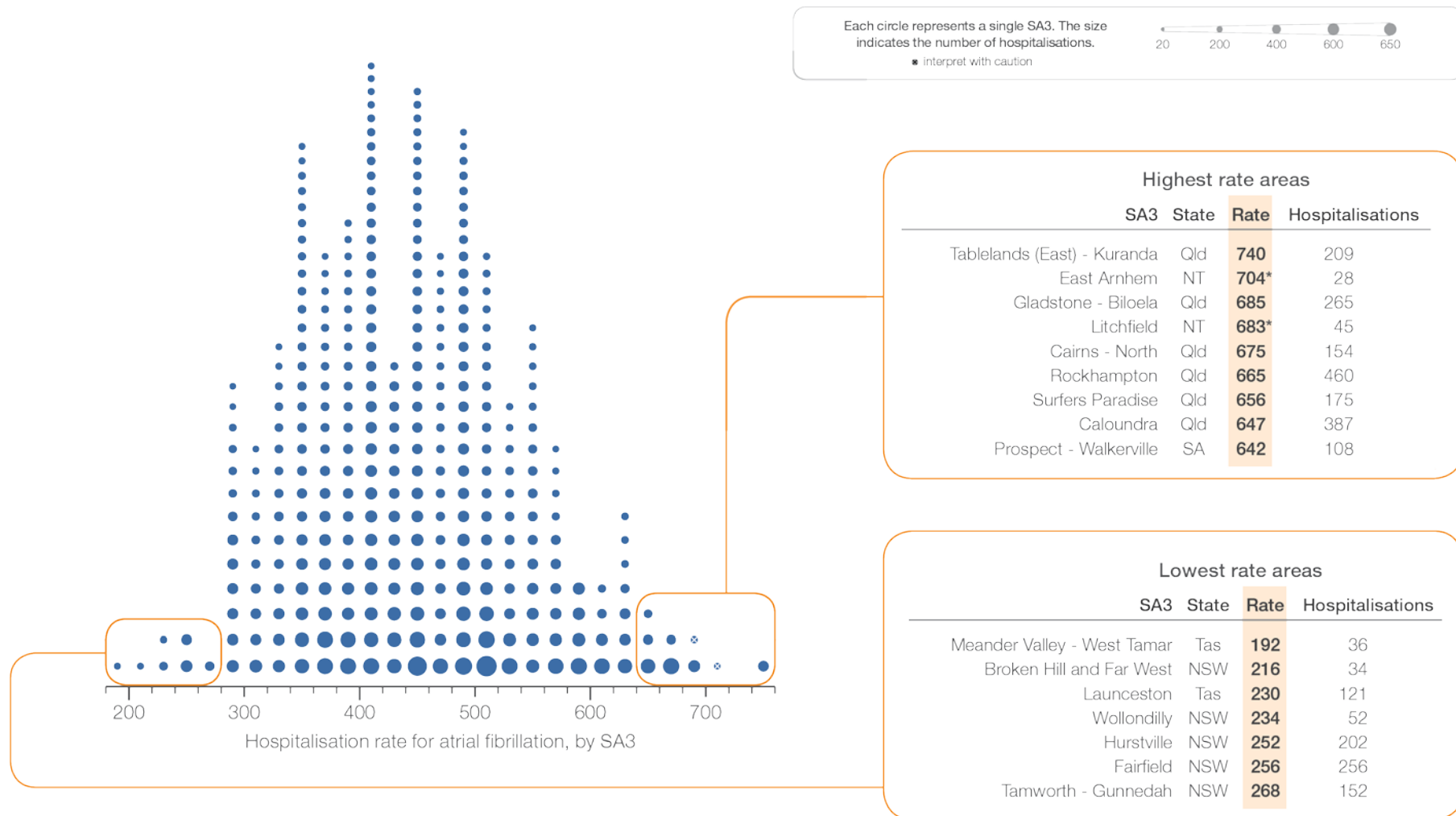


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2.2 Atrial fibrillation hospitalisations 35 years and over



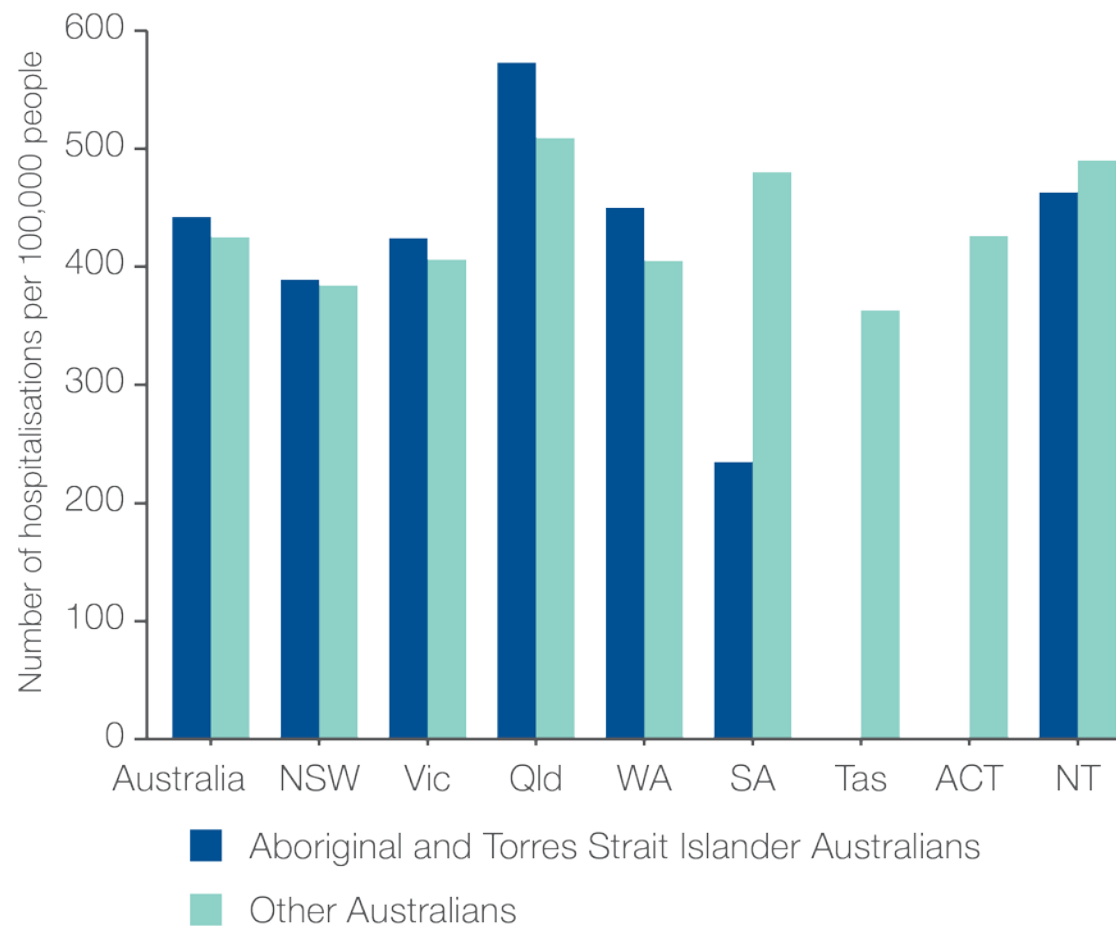
National Hospital Morbidity Database, 2014–15





2.2 Atrial fibrillation hospitalisations 35 years and over

Aboriginal and Torres Strait Islander status



National Hospital Morbidity Database, 2014–15



Cardiovascular conditions

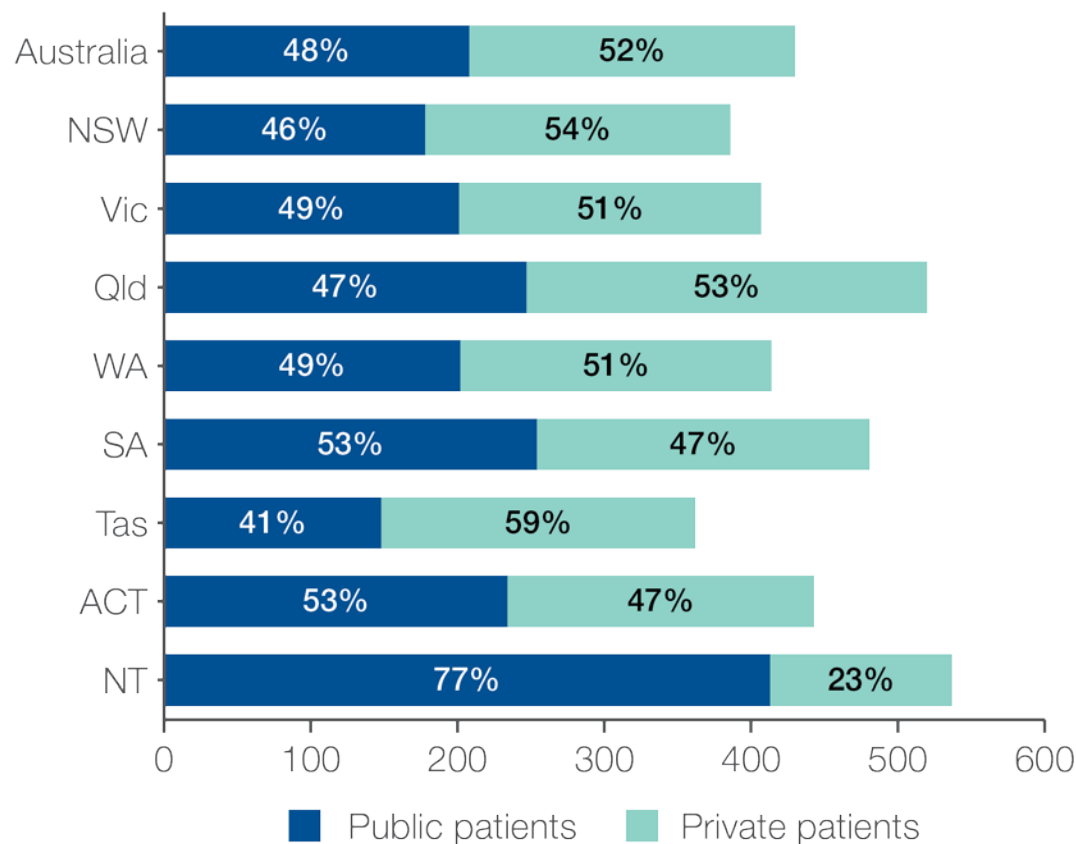
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2.2 Atrial fibrillation hospitalisations 35 years and over

Patient funding status



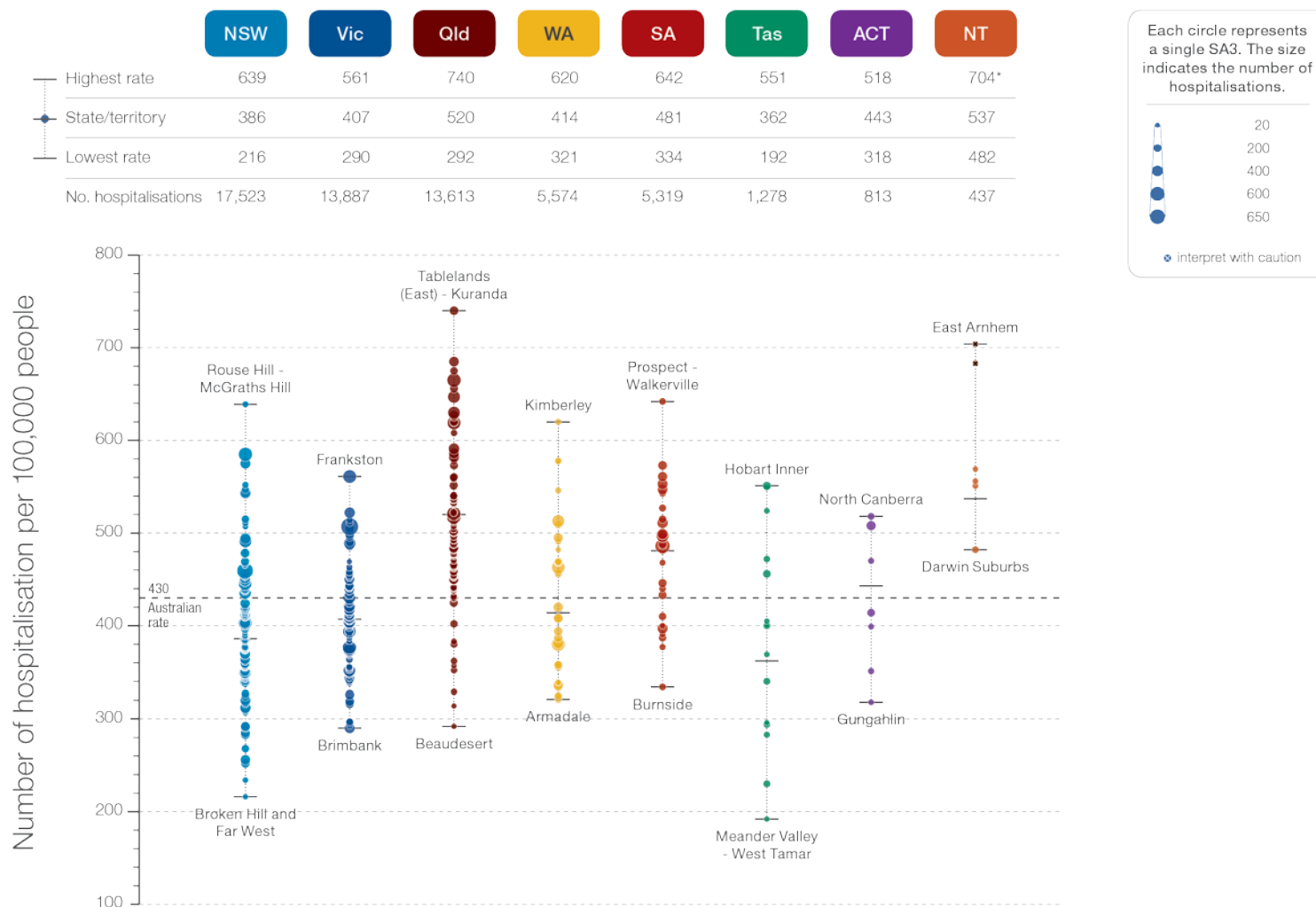
Number of hospitalisations per 100,000 people

National Hospital Morbidity Database, 2014–15



2.2 Atrial fibrillation hospitalisations 35 years and over

State and territory



National Hospital Morbidity Database, 2014–15



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2.2 Atrial fibrillation hospitalisations 35 years and over

Remoteness and socioeconomic status



National Hospital Morbidity Database, 2014–15

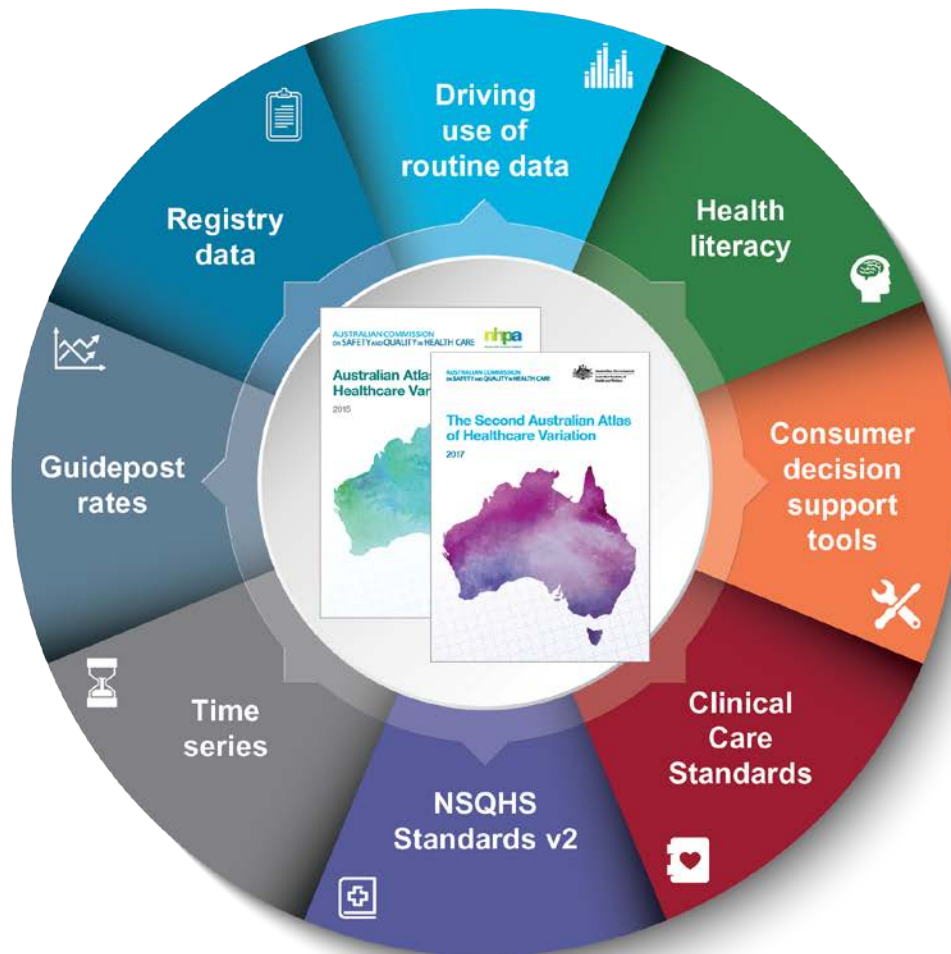


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Promoting appropriate care



Explore variation

Identify unwarranted variation

Address unwarranted variation





Further resources

- Explore the data further using the interactive Atlas at www.safetyandquality.gov.au/atlas/
- Please send any queries to atlas@safetyandquality.gov.au



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