

AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE

Women's health and maternity

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
- 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?
- Women's health and maternity: 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.





Women's health and maternity key findings

Data item	Range across SA3s per 100,000 women	Times difference	Times difference excluding top and bottom 10%	Number over one year
3.1 Hysterectomy Hospitalisations, women aged 15 years and over	115 to 763	6.6	2.1	27,586

Data item	Range across SA3s per 100,000 women	Times difference	Times difference excluding top and bottom 10%	Number over three years
3.2 Endometrial ablation Hospitalisations, women aged 15 years and over	19 to 390	20.5	4.2	28,606
3.3 Cervical loop excision cervical laser ablation Hospitalisations, women aged 15 years and over	23 to 408	17.7	2.1	43,920

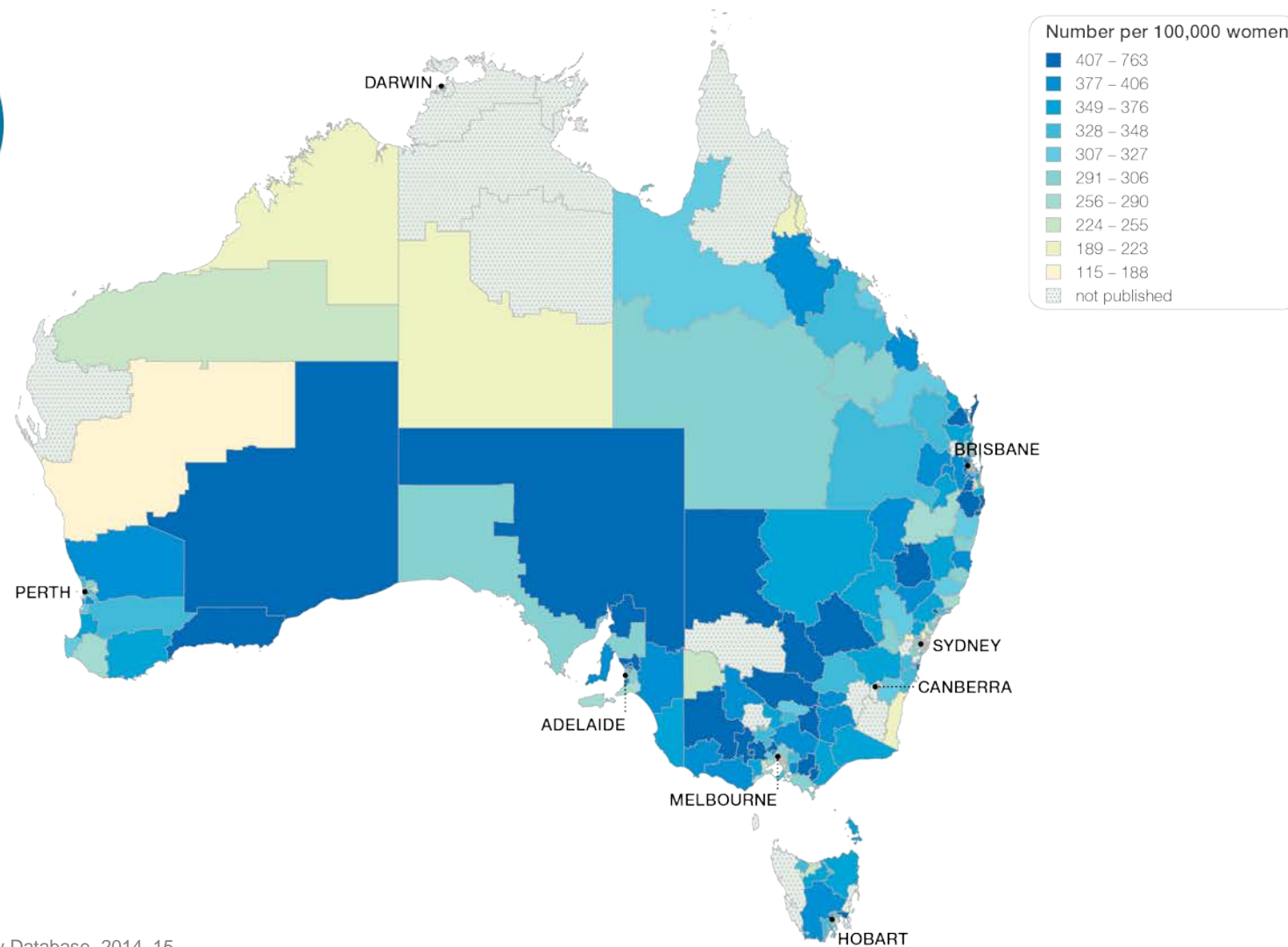
Data item	Range across SA3s per 1,000 selected women	Times difference	Times difference excluding top and bottom 10%	Number over three years
3.4 Caesarean section, selected women aged 20–34 years	147 to 438	3.0	1.5	75,018

Data item	Range across SA3s per 1,000 vaginal births	Times difference	Times difference excluding top and bottom 10%	Number over three years
3.5 Third-and fourth-degree perineal tears, all vaginal births	6 to 71	11.8	2.9	18,463



3.1 Hysterectomy hospitalisations 15 years and over

6.6x
AS HIGH
in the highest rate area
compared to the
lowest rate area



National Hospital Morbidity Database, 2014–15

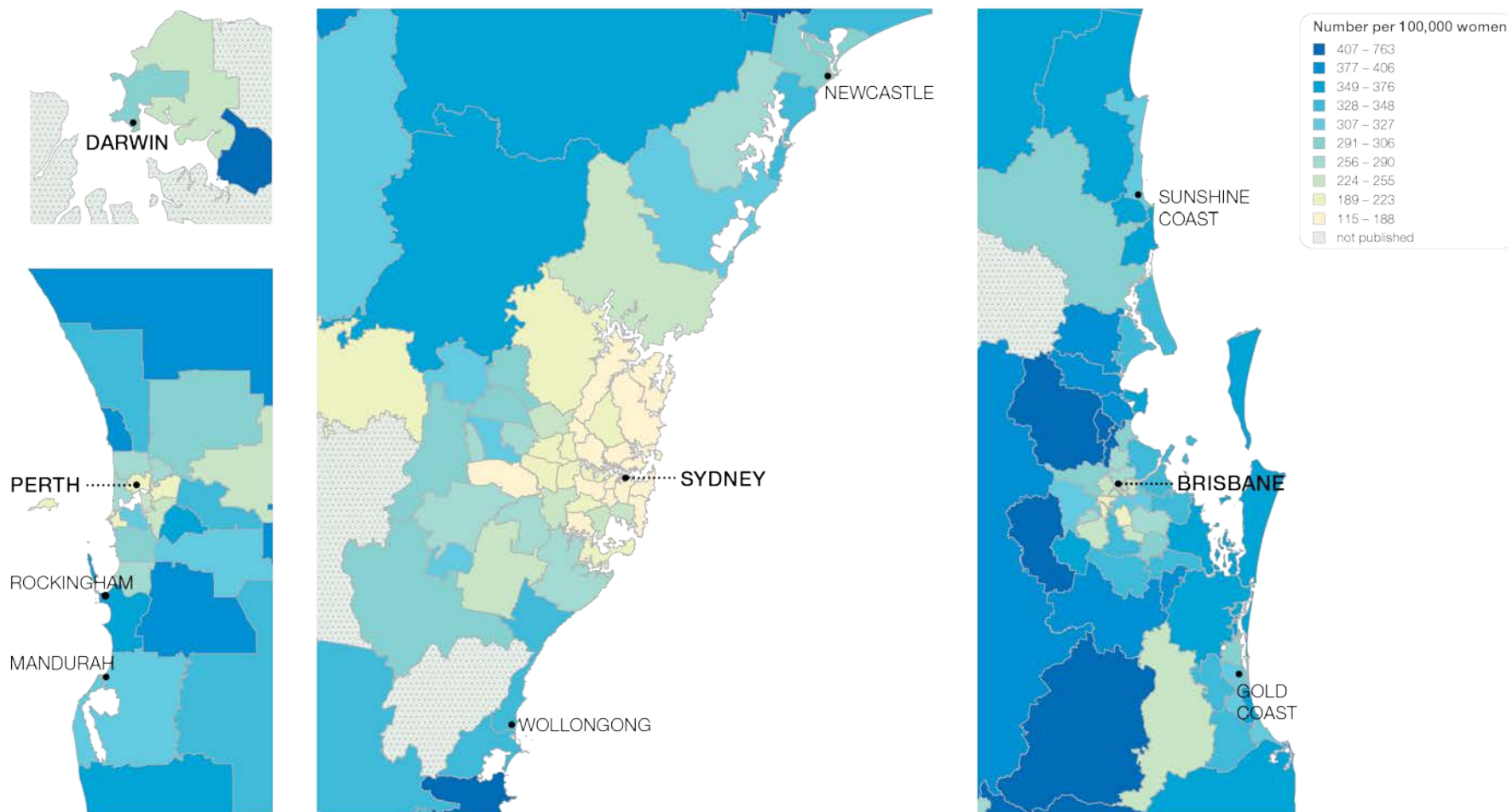


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3.1 Hysterectomy hospitalisations 15 years and over



National Hospital Morbidity Database, 2014–15



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3.1 Hysterectomy hospitalisations 15 years and over



National Hospital Morbidity Database, 2014–15



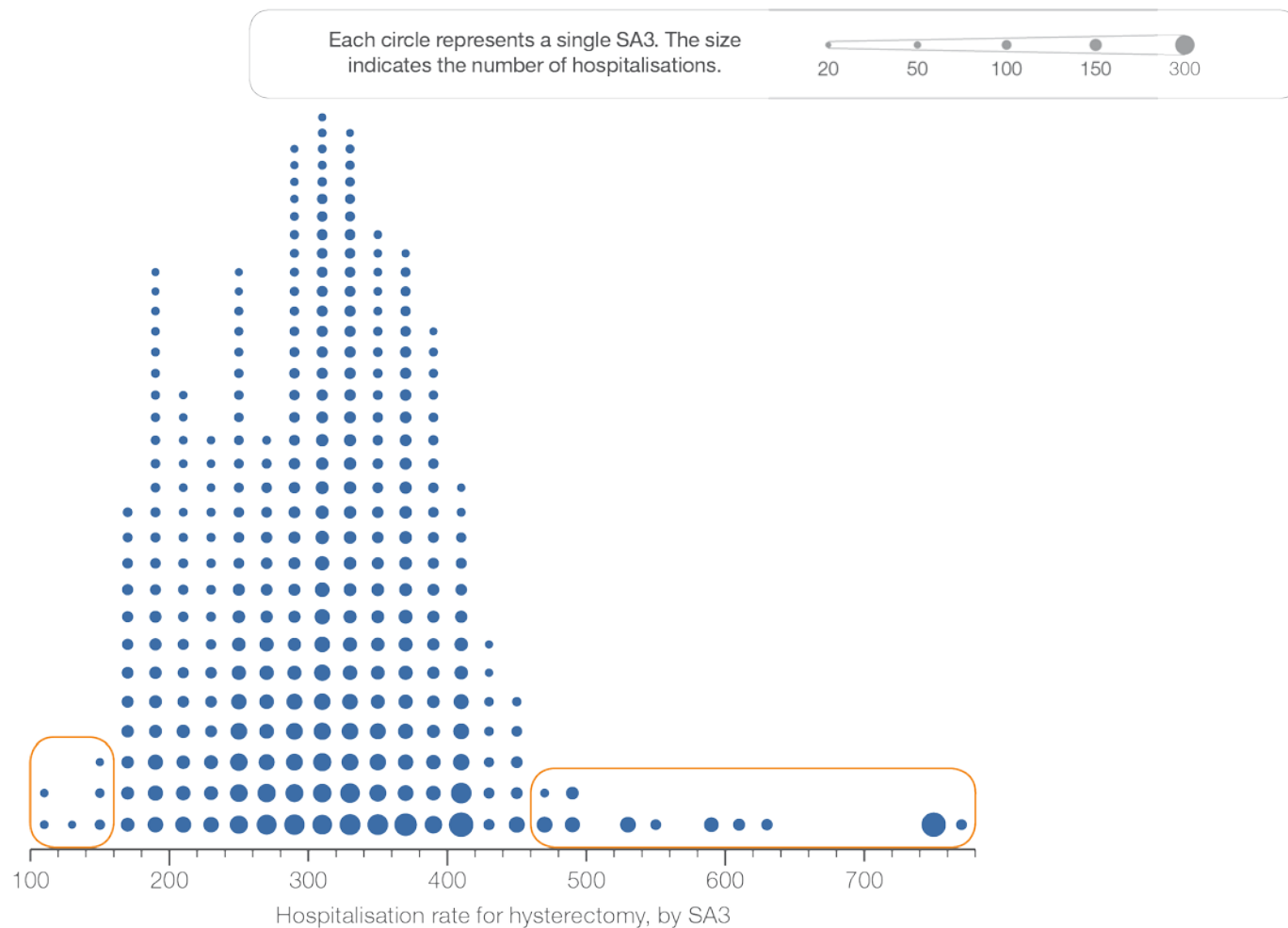
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3.1 Hysterectomy hospitalisations 15 years and over



National Hospital Morbidity Database, 2014–15

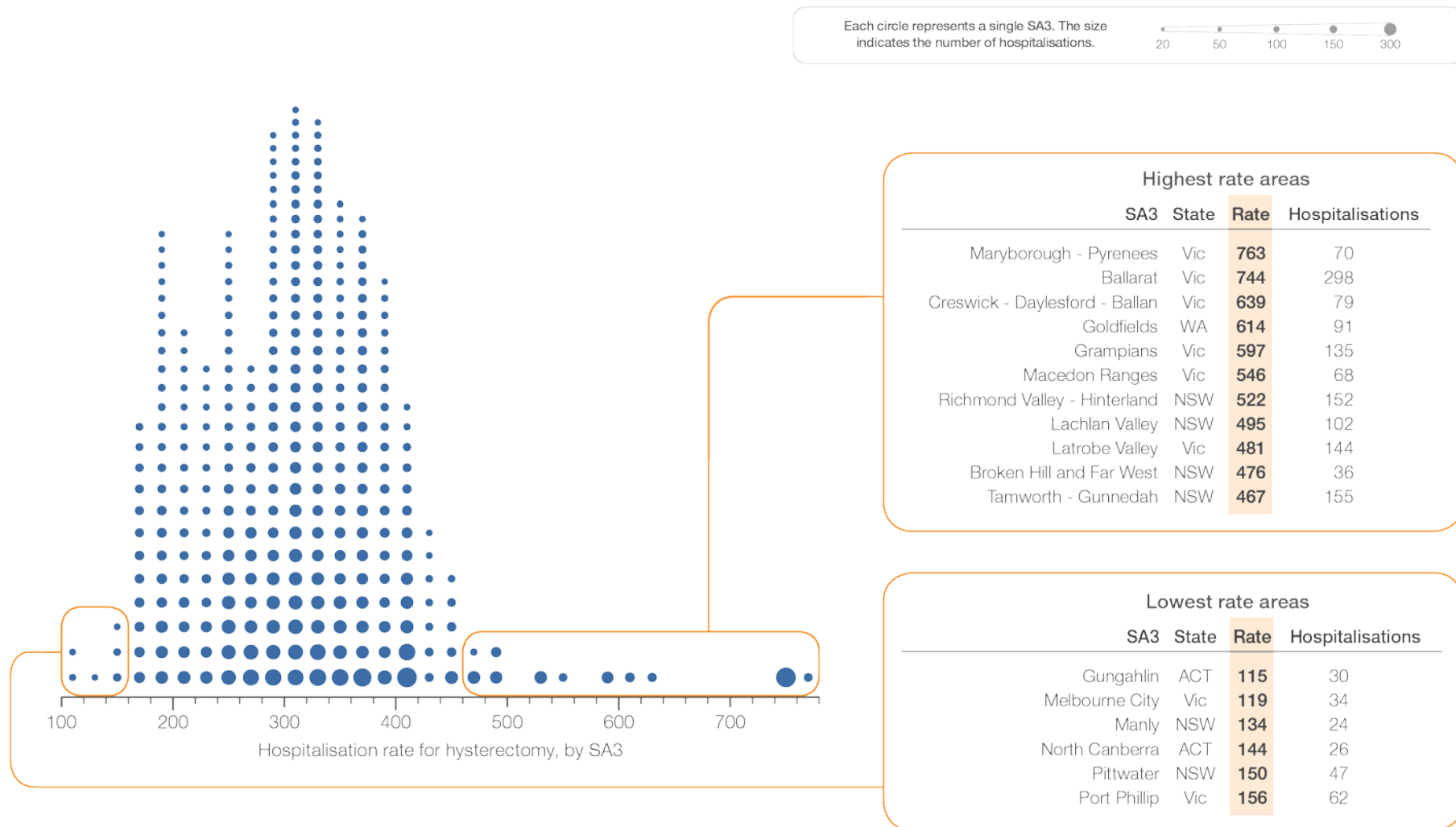


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3.1 Hysterectomy hospitalisations 15 years and over



National Hospital Morbidity Database, 2014–15





3.1 Hysterectomy hospitalisations 15 years and over

Aboriginal and Torres Strait Islander status



National Hospital Morbidity Database, 2014–15



Women's health and maternity

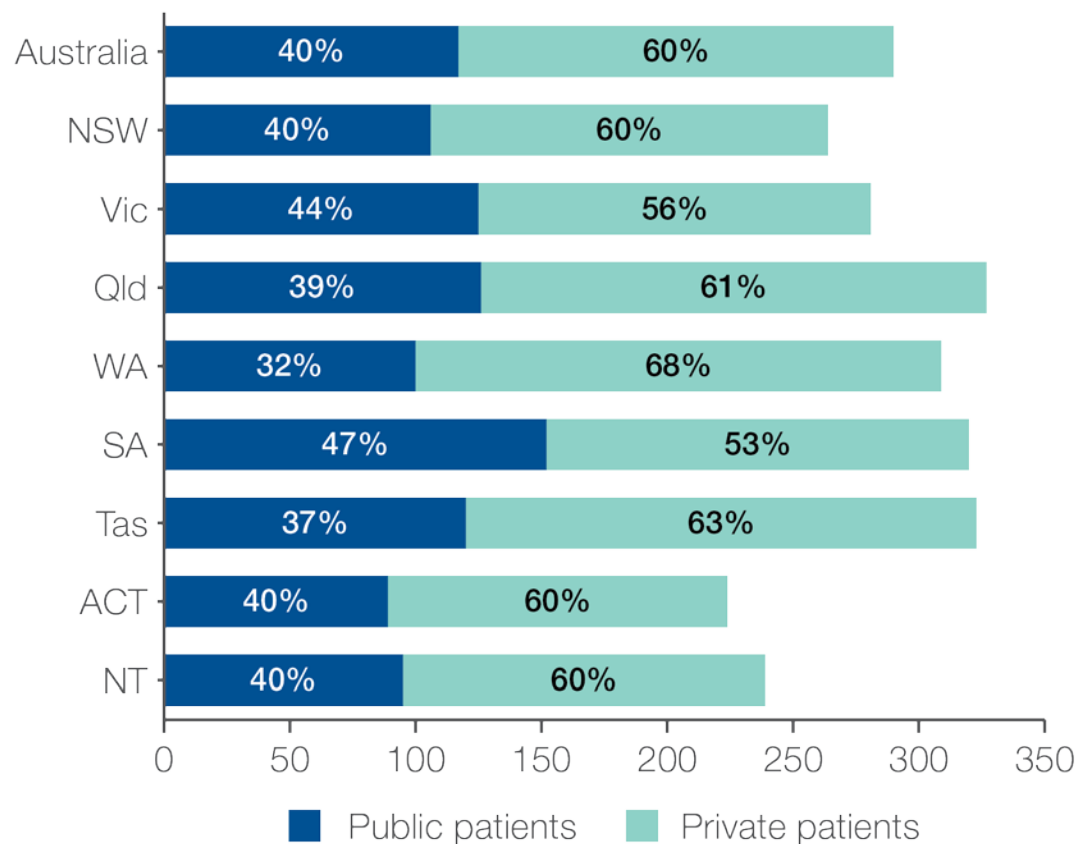
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3.1 Hysterectomy hospitalisations 15 years and over

Patient funding status



Number of hospitalisations per 100,000 women

National Hospital Morbidity Database, 2014–15



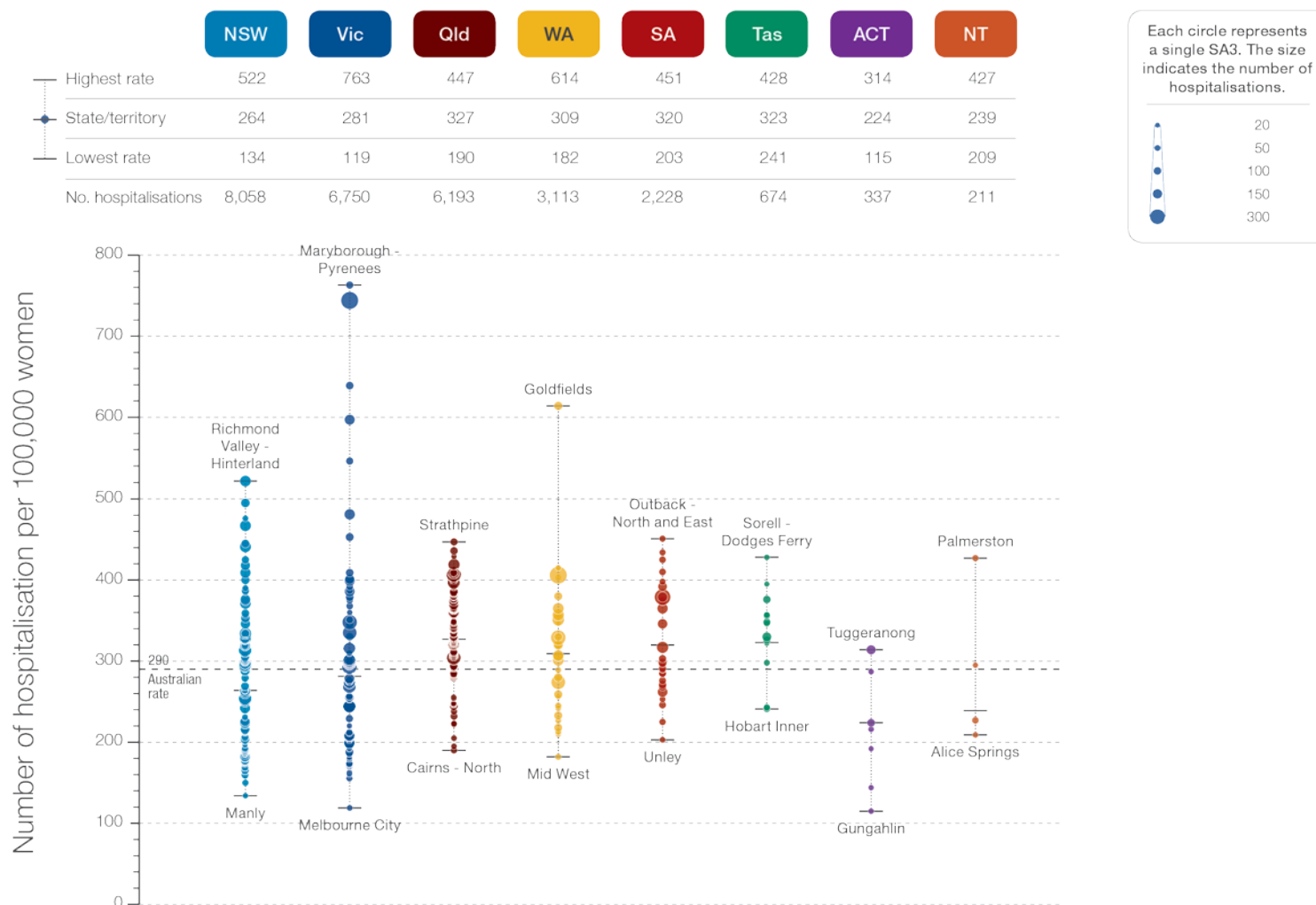
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3.1 Hysterectomy hospitalisations 15 years and over

State and territory



National Hospital Morbidity Database, 2014–15



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3.1 Hysterectomy hospitalisations 15 years and over

Remoteness and socioeconomic status



National Hospital Morbidity Database, 2014–15



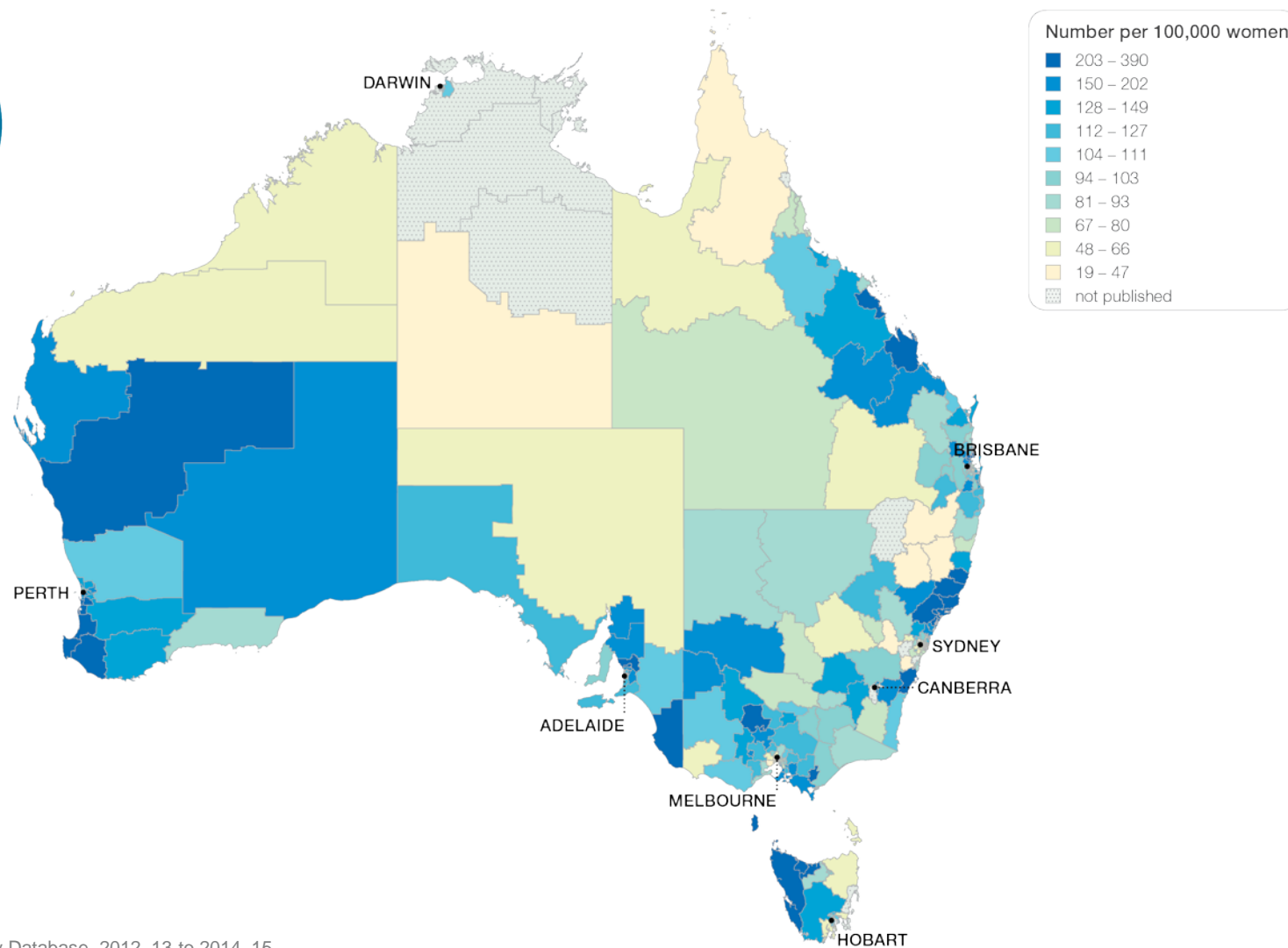
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3.2 Endometrial ablation hospitalisations 15 years and over

20.5x
AS HIGH
in the highest rate area
compared to the
lowest rate area



National Hospital Morbidity Database, 2012–13 to 2014–15

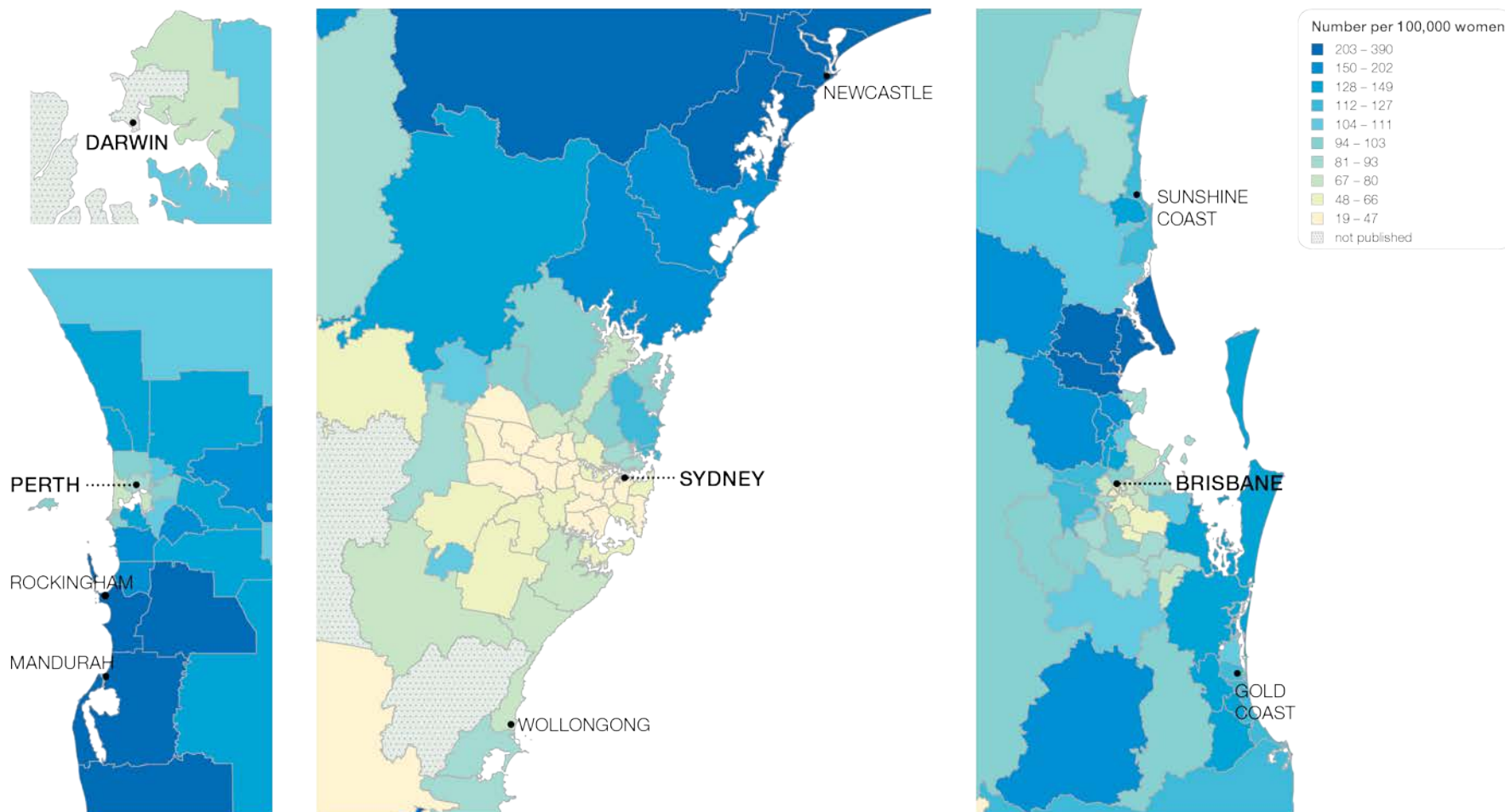


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3.2 Endometrial ablation hospitalisations 15 years and over



National Hospital Morbidity Database, 2012–13 to 2014–15

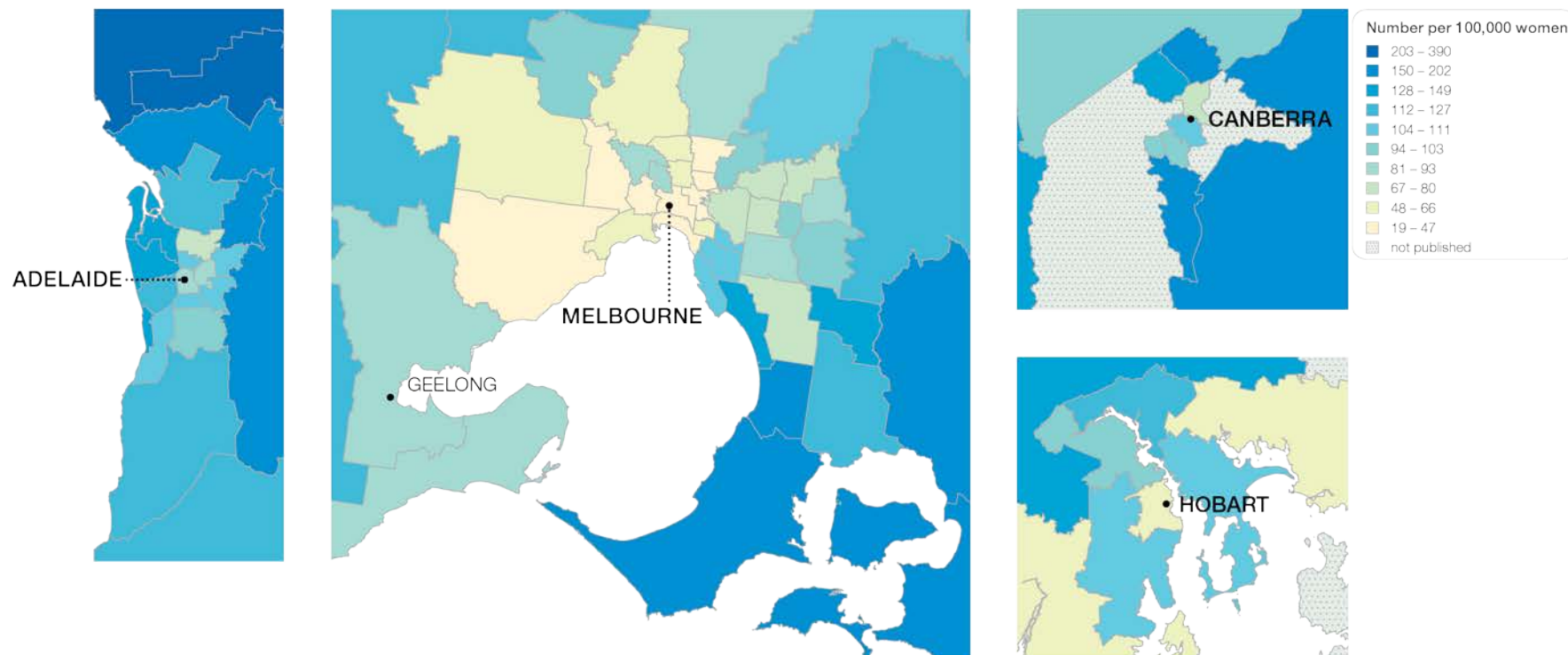


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3.2 Endometrial ablation hospitalisations 15 years and over



National Hospital Morbidity Database, 2012–13 to 2014–15

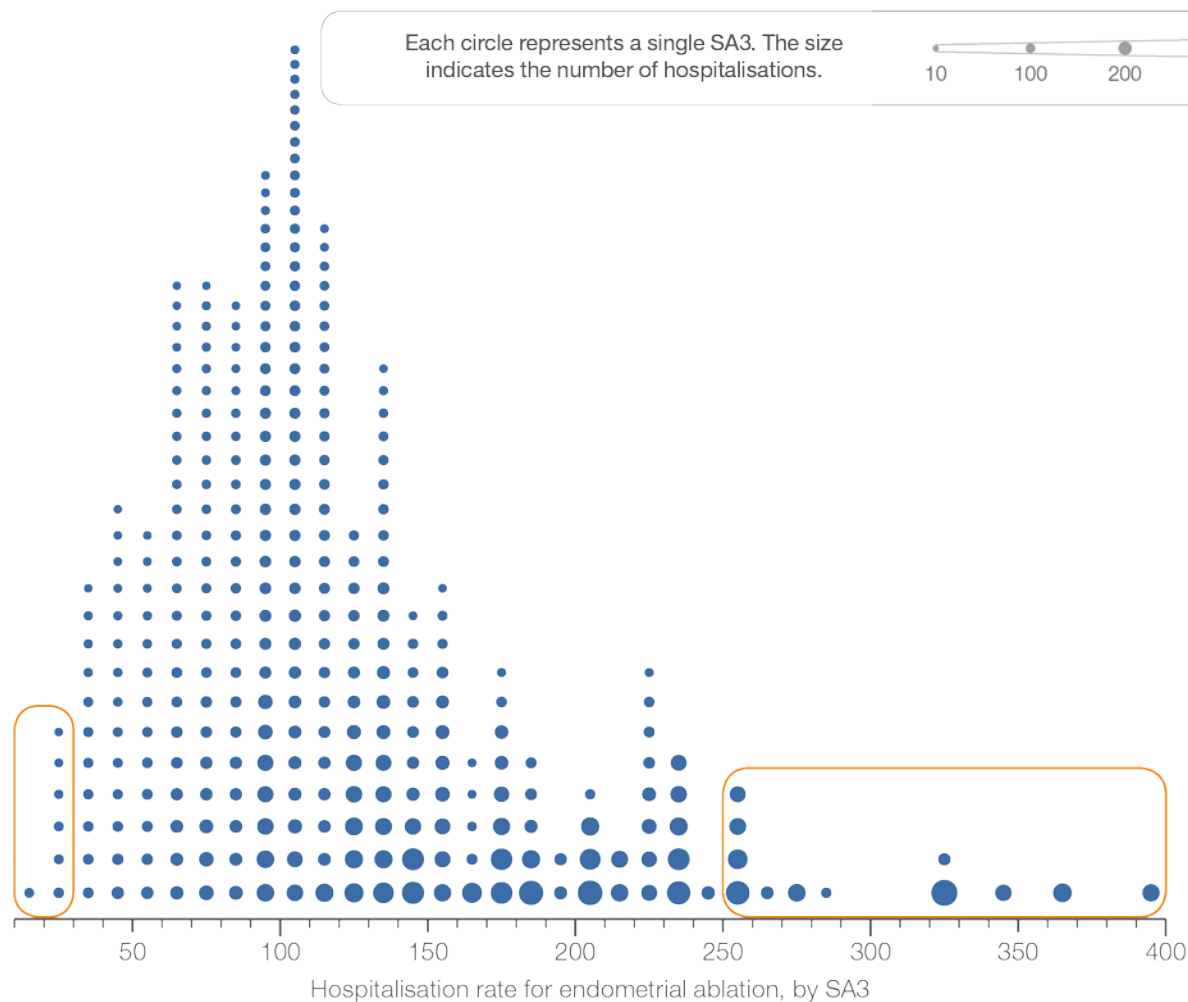


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3.2 Endometrial ablation hospitalisations 15 years and over



National Hospital Morbidity Database, 2012–13 to 2014–15

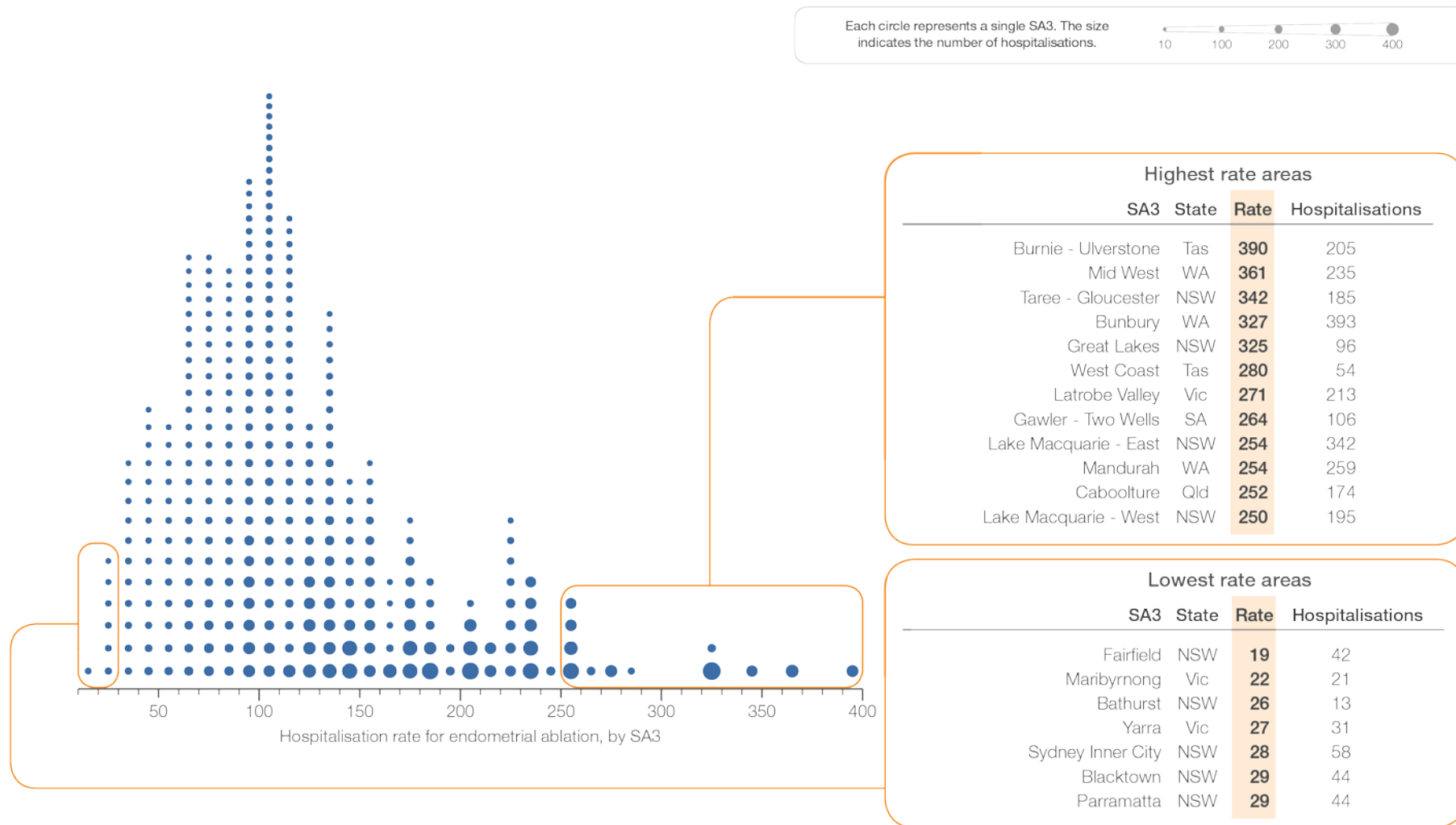


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3.2 Endometrial ablation hospitalisations 15 years and over



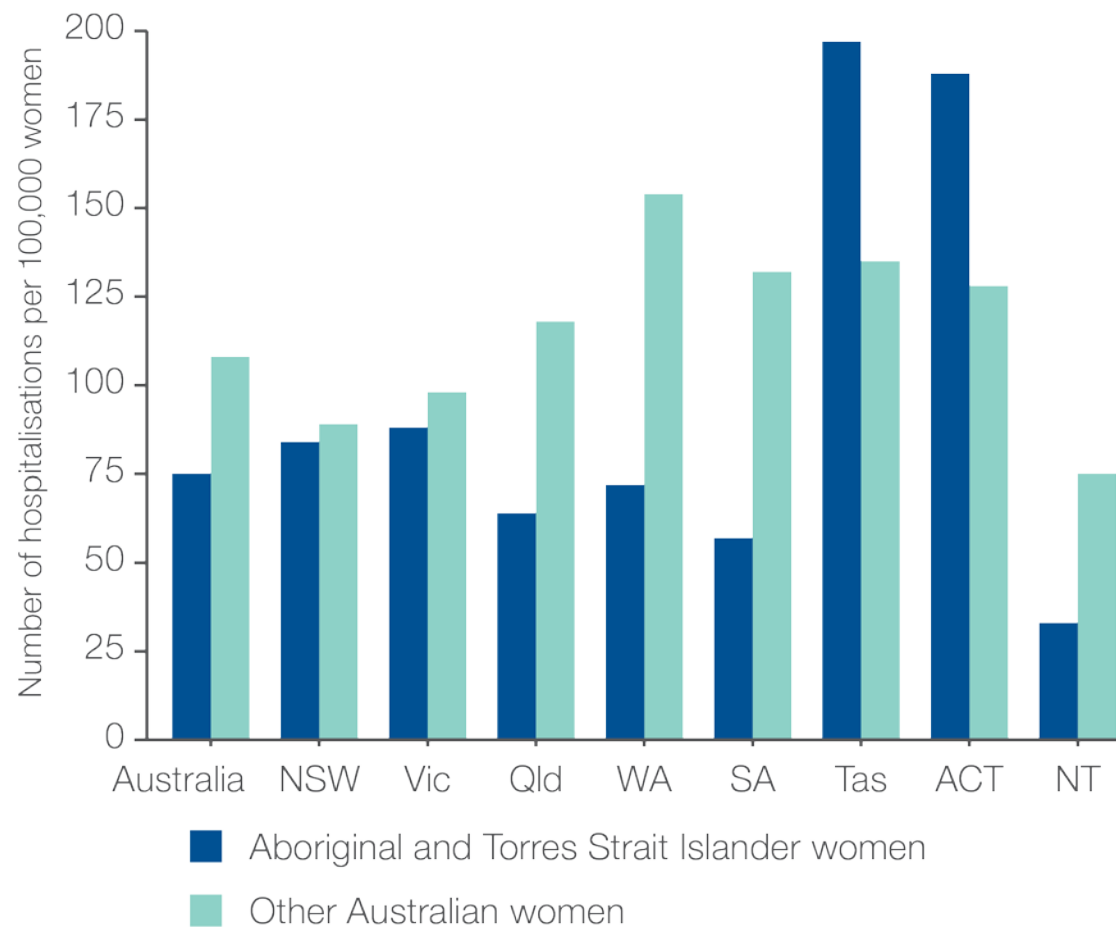
National Hospital Morbidity Database, 2012–13 to 2014–15





3.2 Endometrial ablation hospitalisations 15 years and over

Aboriginal and Torres Strait Islander status



National Hospital Morbidity Database, 2012–13 to 2014–15



Women's health and maternity

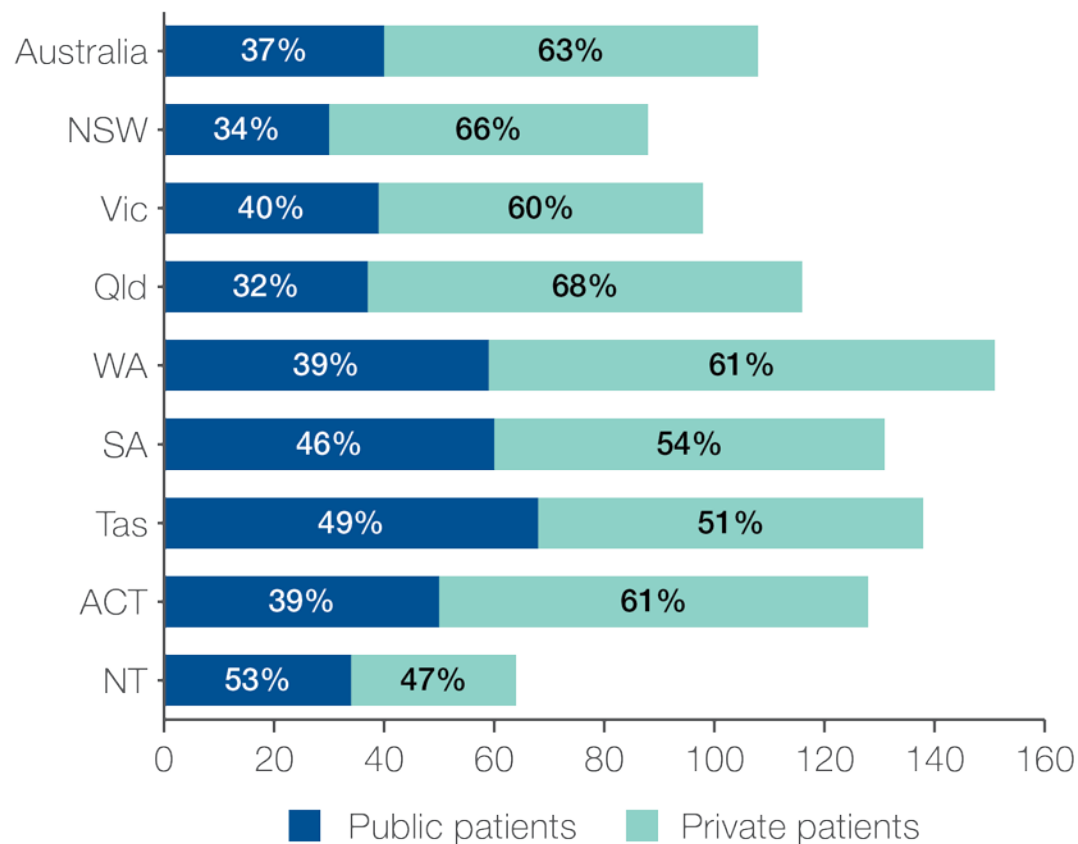
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3.2 Endometrial ablation hospitalisations 15 years and over

Patient funding status



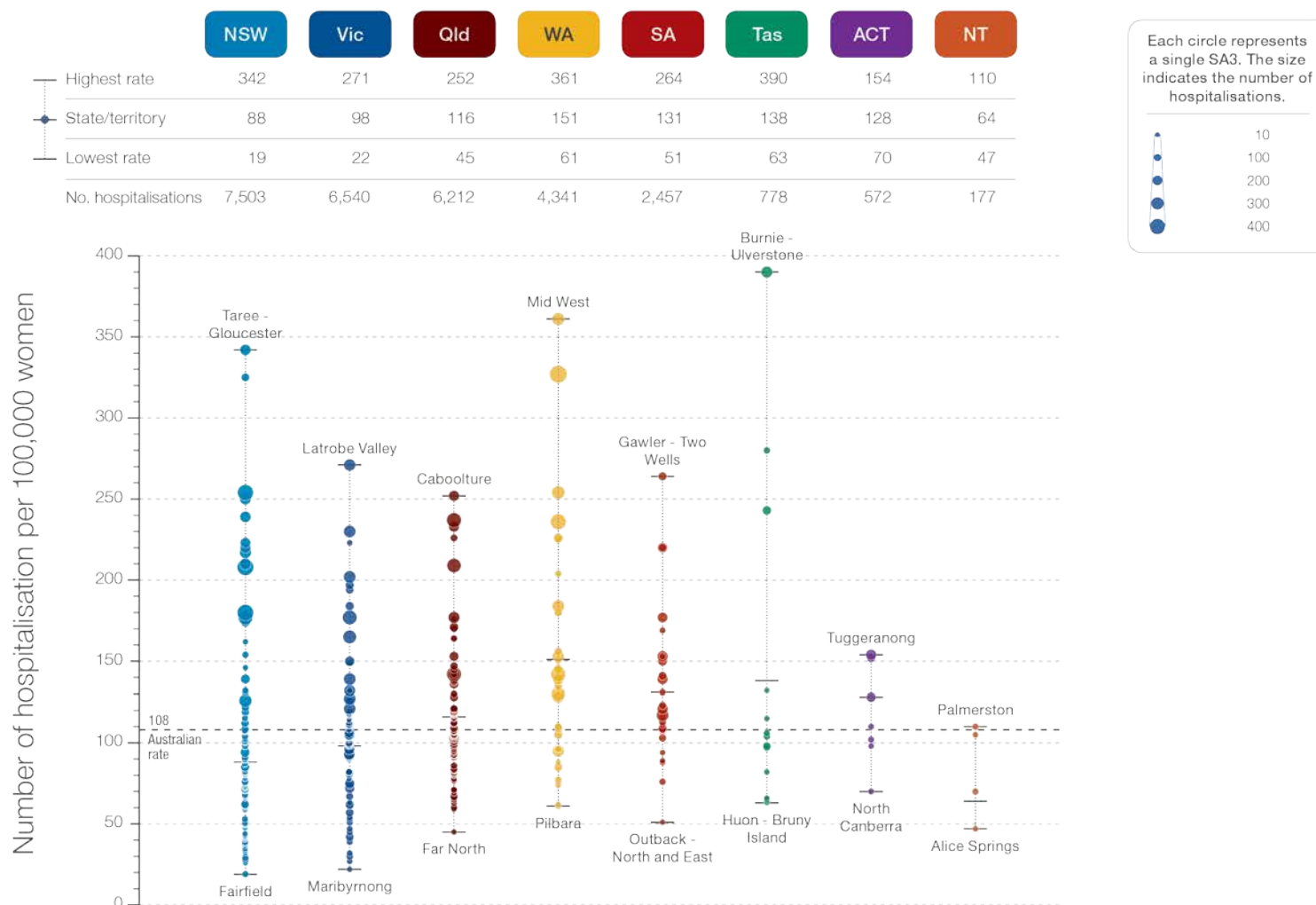
Number of hospitalisations per 100,000 women

National Hospital Morbidity Database, 2012–13 to 2014–15



3.2 Endometrial ablation hospitalisations 15 years and over

State and territory



National Hospital Morbidity Database, 2012–13 to 2014–15



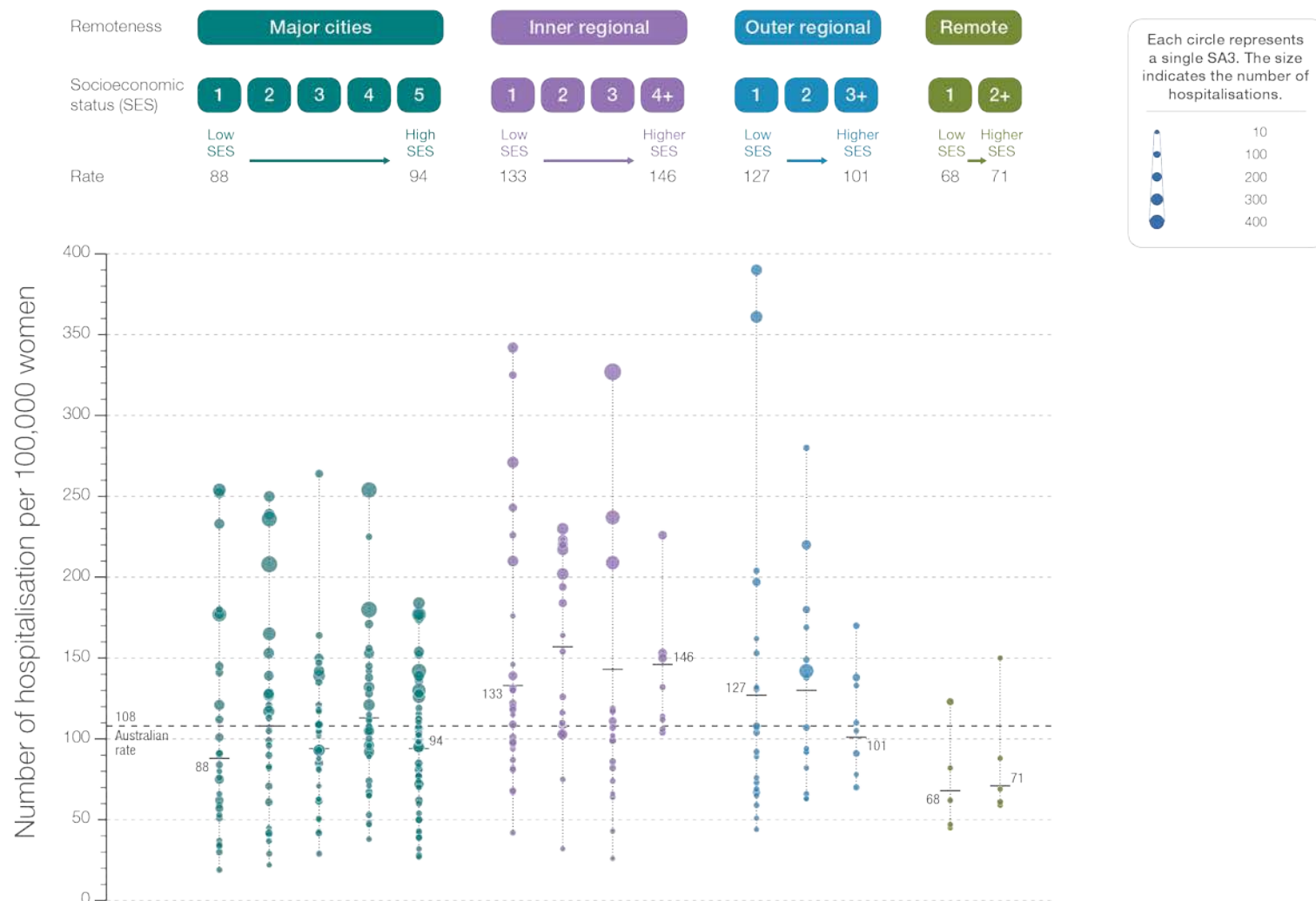
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3.2 Endometrial ablation hospitalisations 15 years and over

Remoteness and socioeconomic status

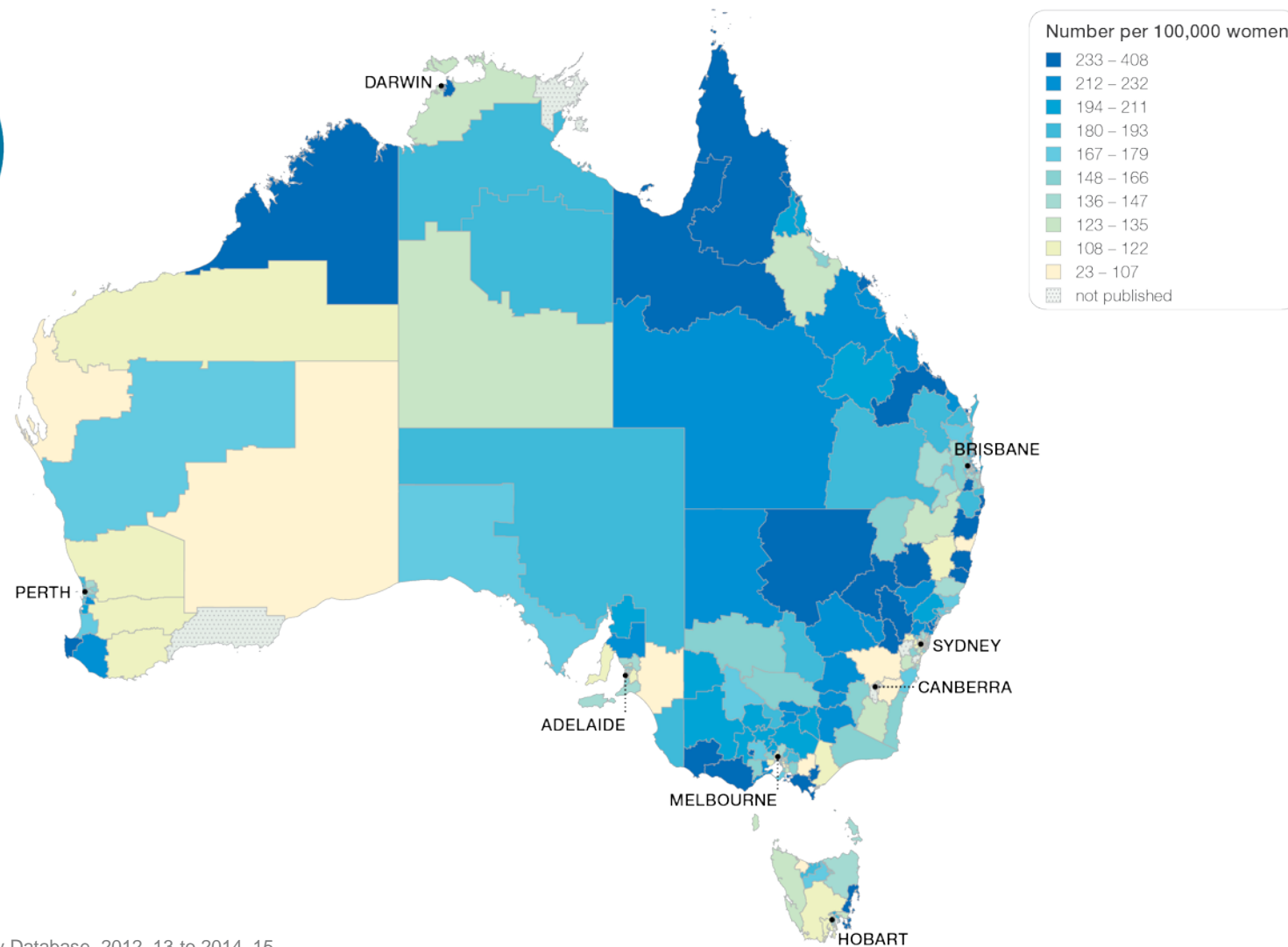


National Hospital Morbidity Database, 2012–13 to 2014–15



3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over

17.5x
AS HIGH
in the highest rate area
compared to the
lowest rate area



National Hospital Morbidity Database, 2012–13 to 2014–15

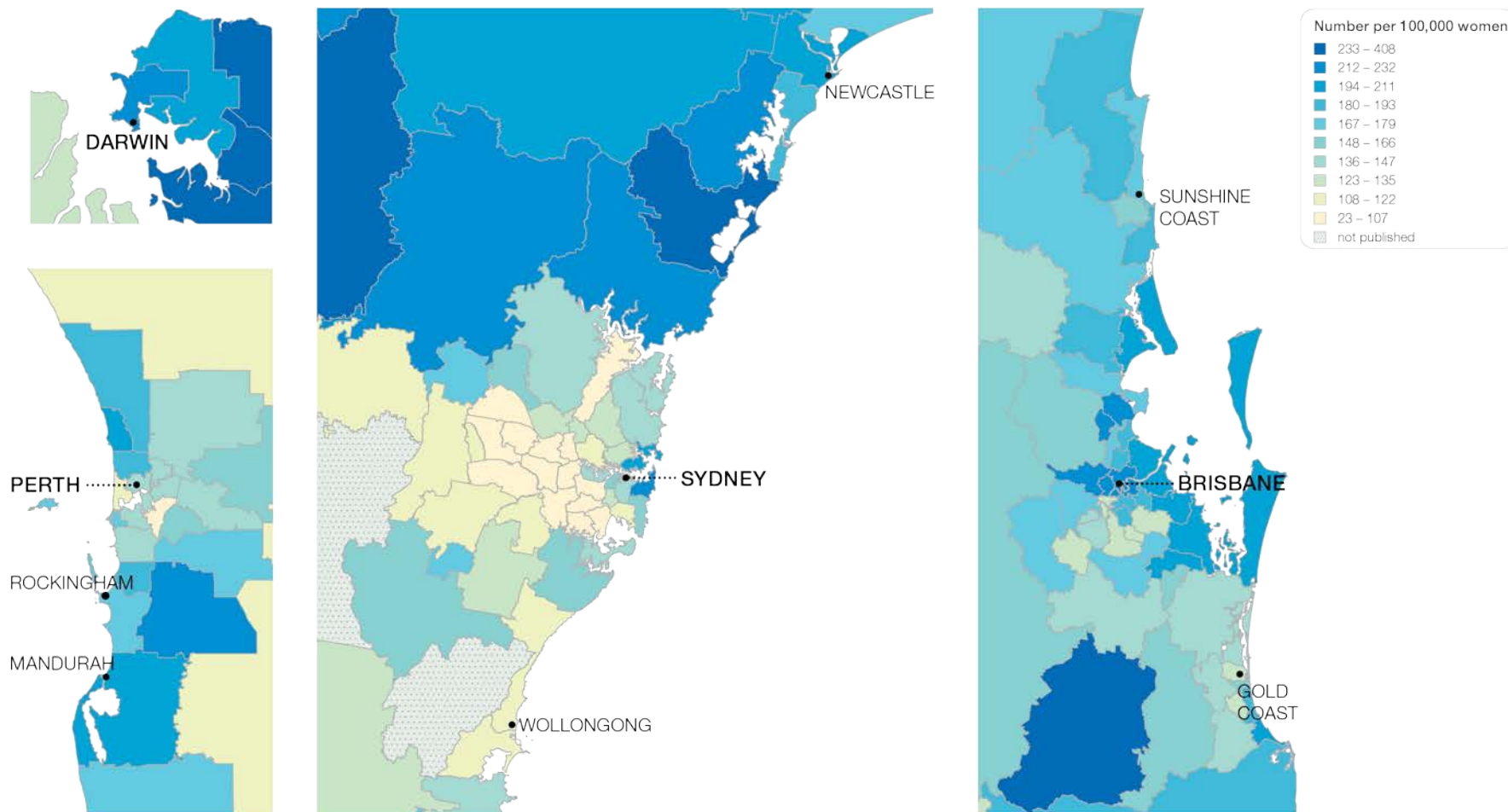


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3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over



National Hospital Morbidity Database, 2012–13 to 2014–15

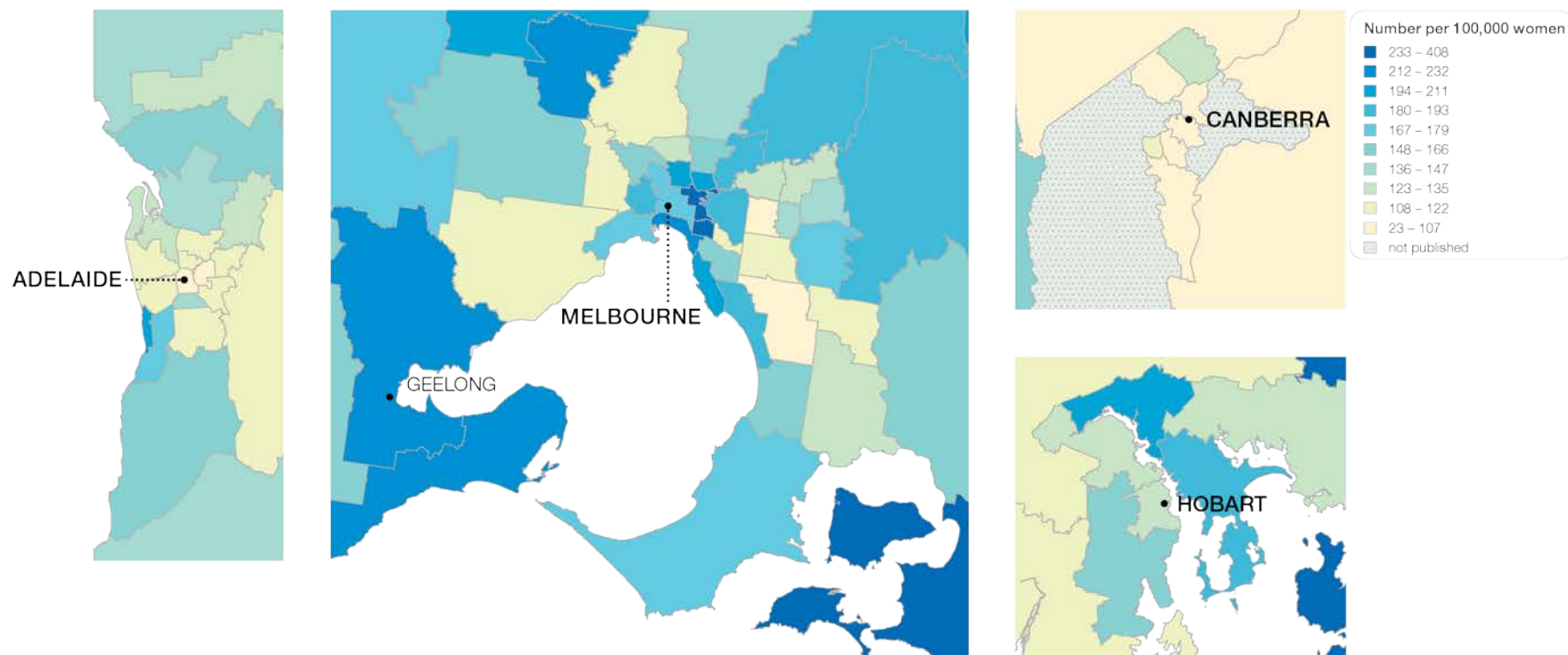


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3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over



National Hospital Morbidity Database, 2012–13 to 2014–15

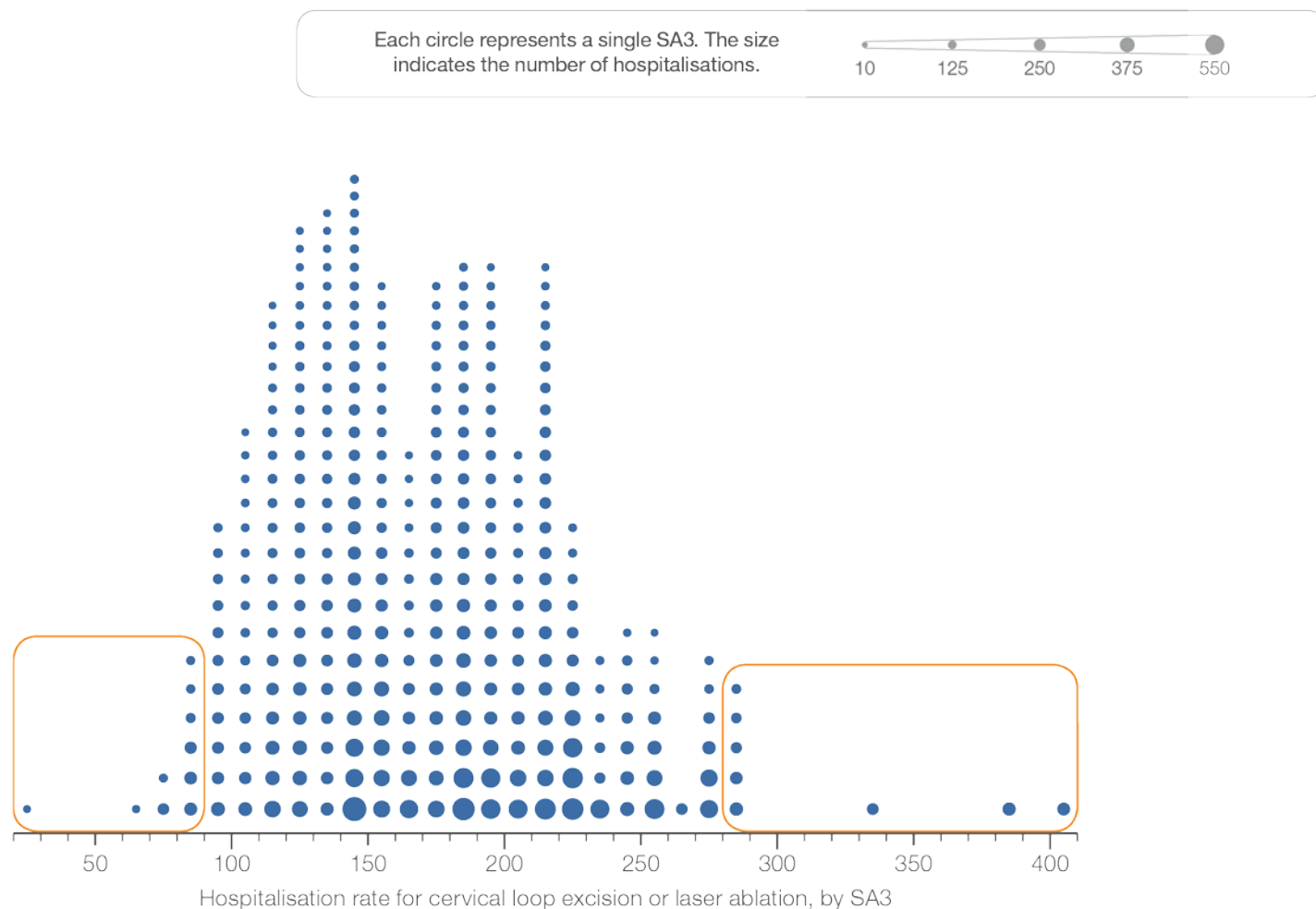


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3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over



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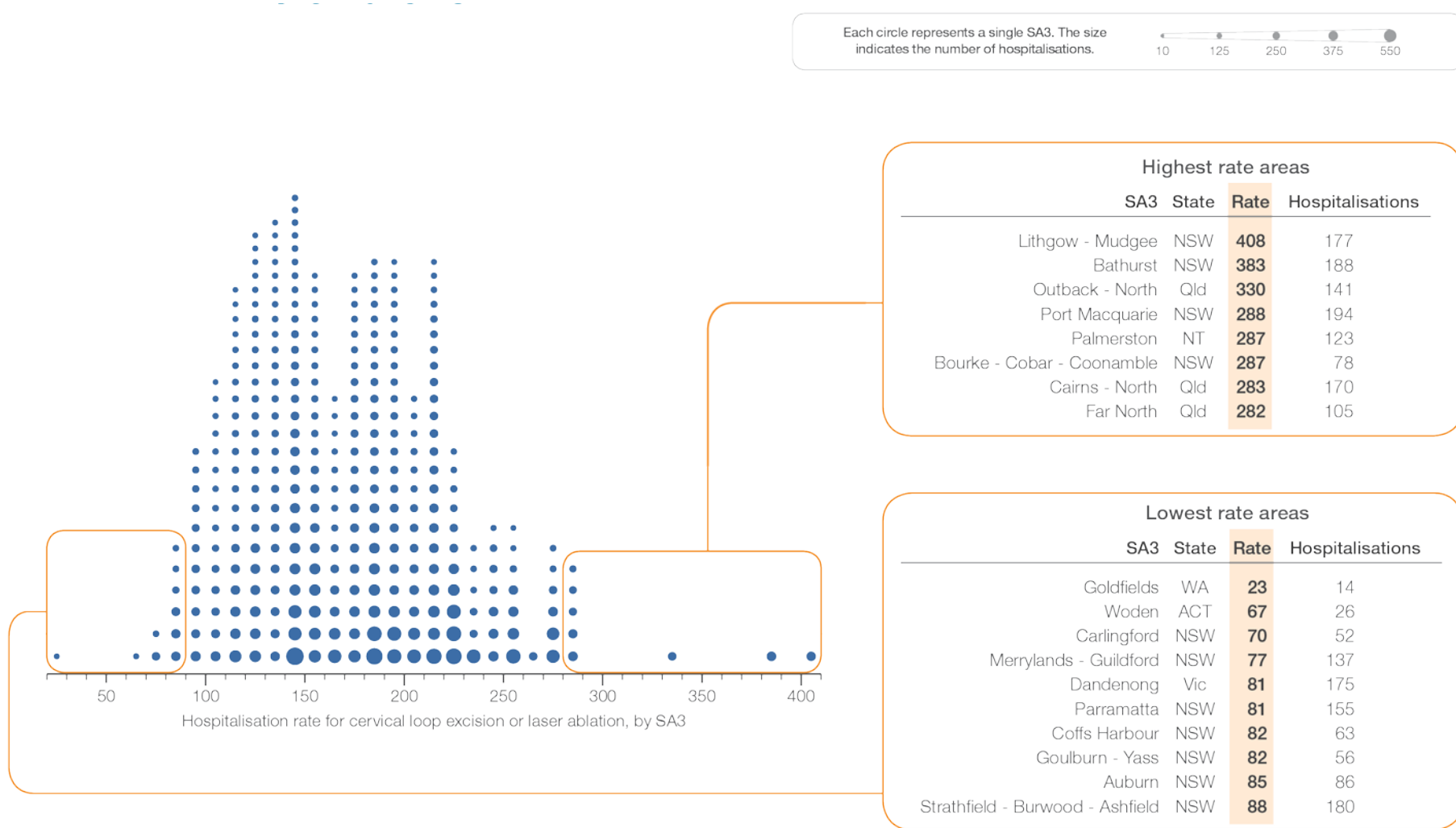


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3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over



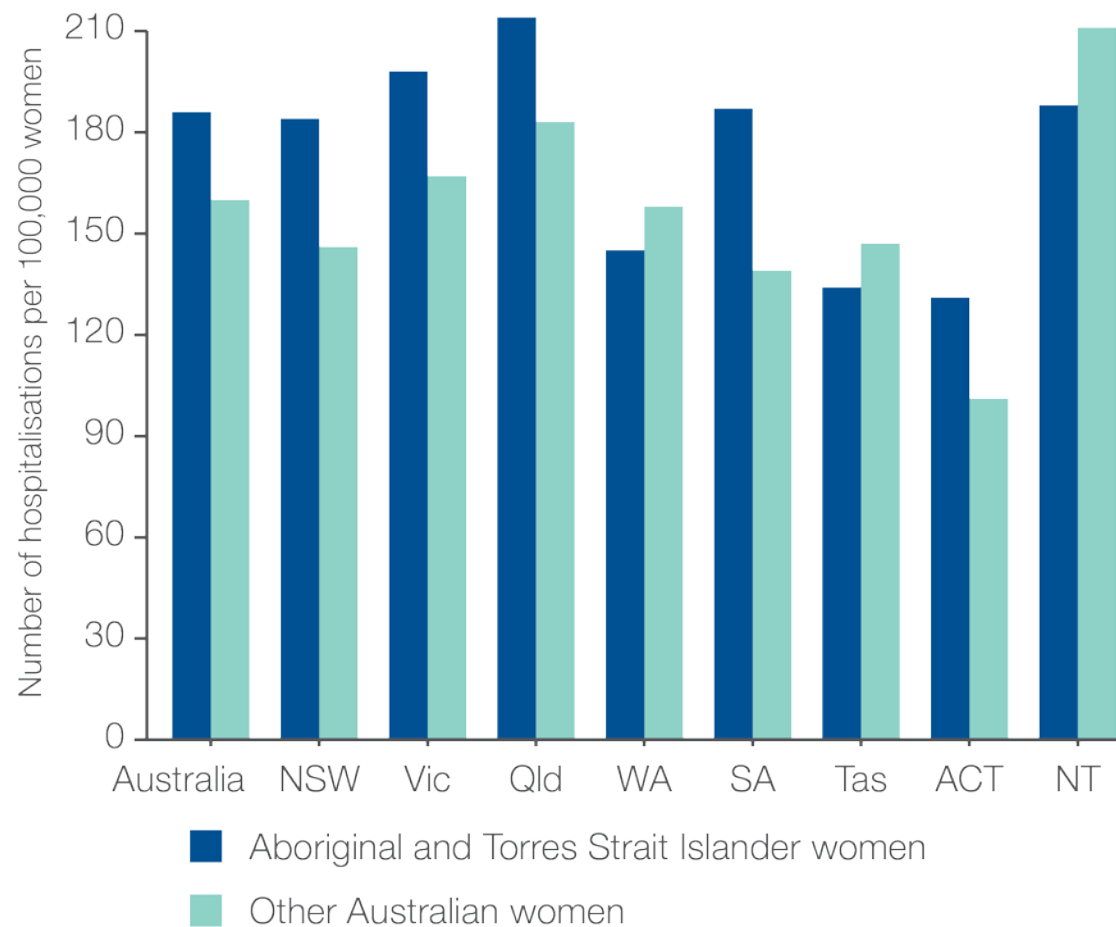
National Hospital Morbidity Database, 2012–13 to 2014–15





3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over

Aboriginal and Torres Strait Islander status



National Hospital Morbidity Database, 2012–13 to 2014–15



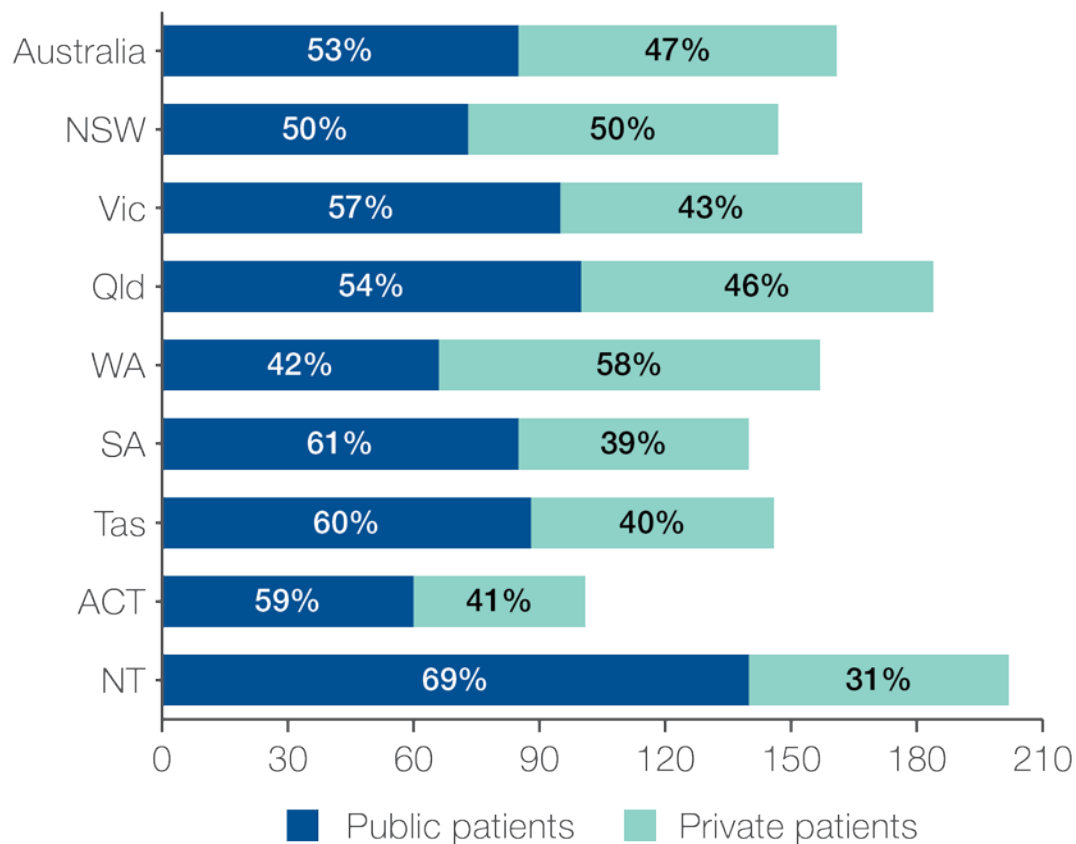
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3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over

Patient funding status



Number of hospitalisations per 100,000 women

National Hospital Morbidity Database, 2012–13 to 2014–15



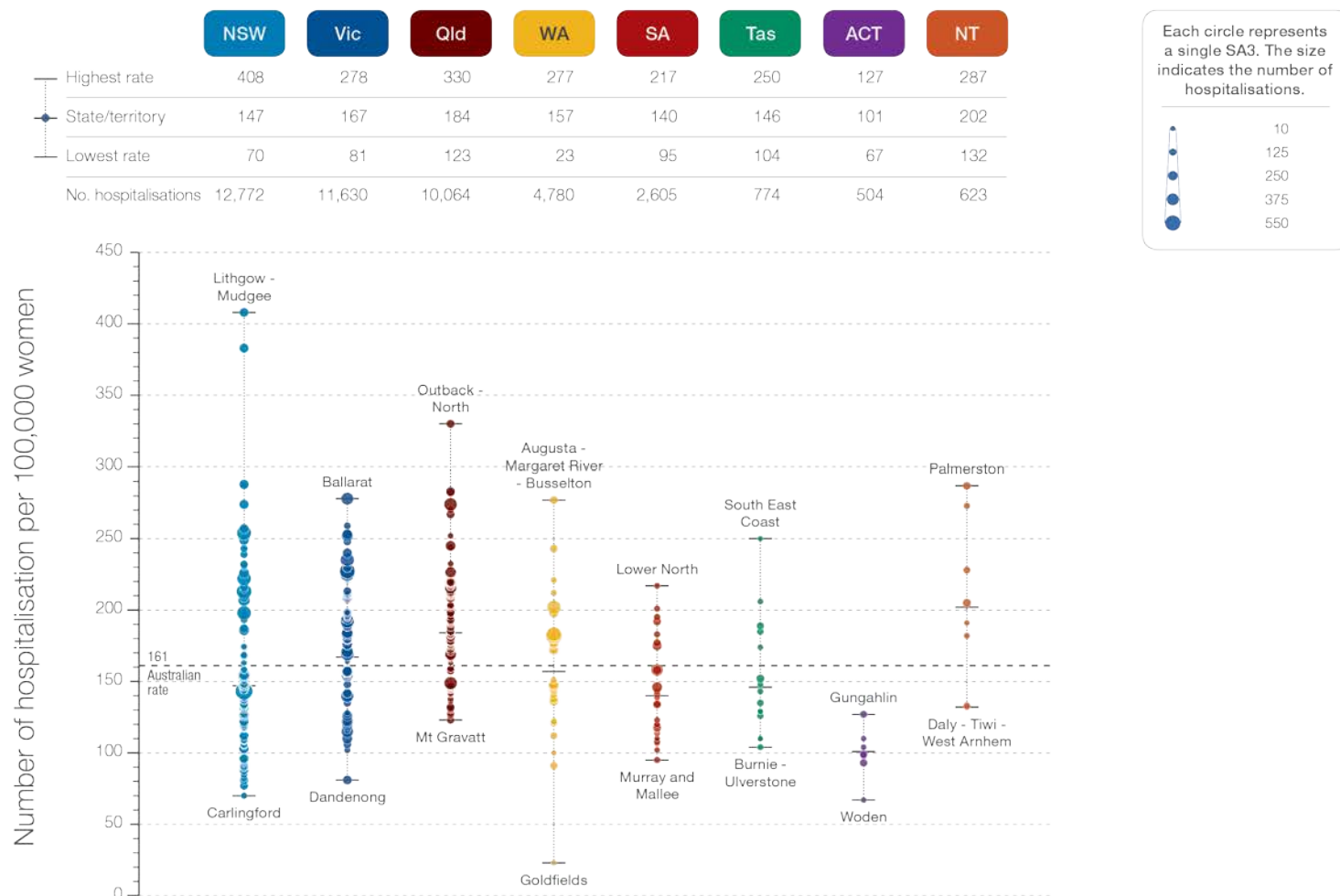
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3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over

State and territory



National Hospital Morbidity Database, 2012–13 to 2014–15



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3.3 Cervical loop excision or cervical laser ablation hospitalisations 15 years and over

Remoteness and socioeconomic status



National Hospital Morbidity Database, 2012–13 to 2014–15



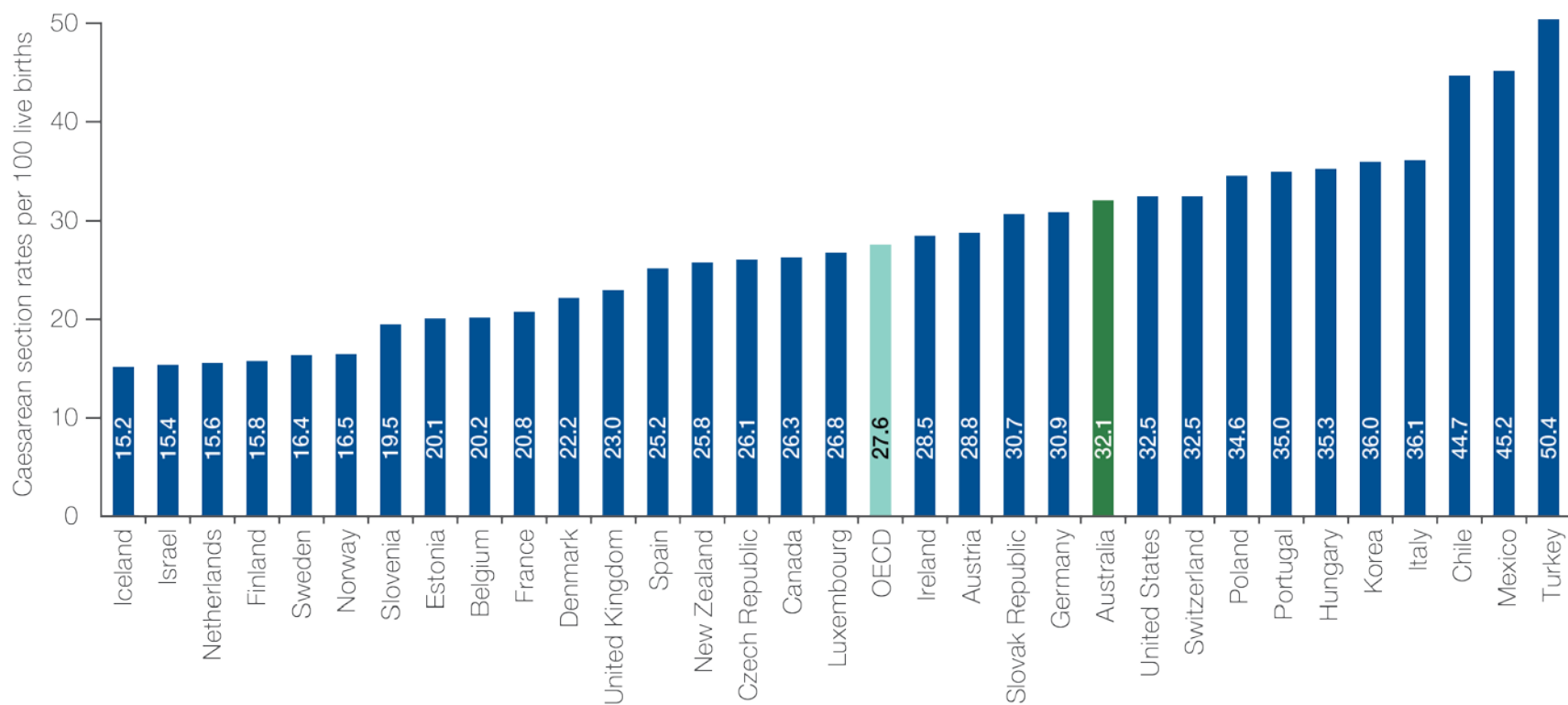
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Caesarean section rates per 100 live births, 2013 (or nearest year), OECD Health at a Glance 2015

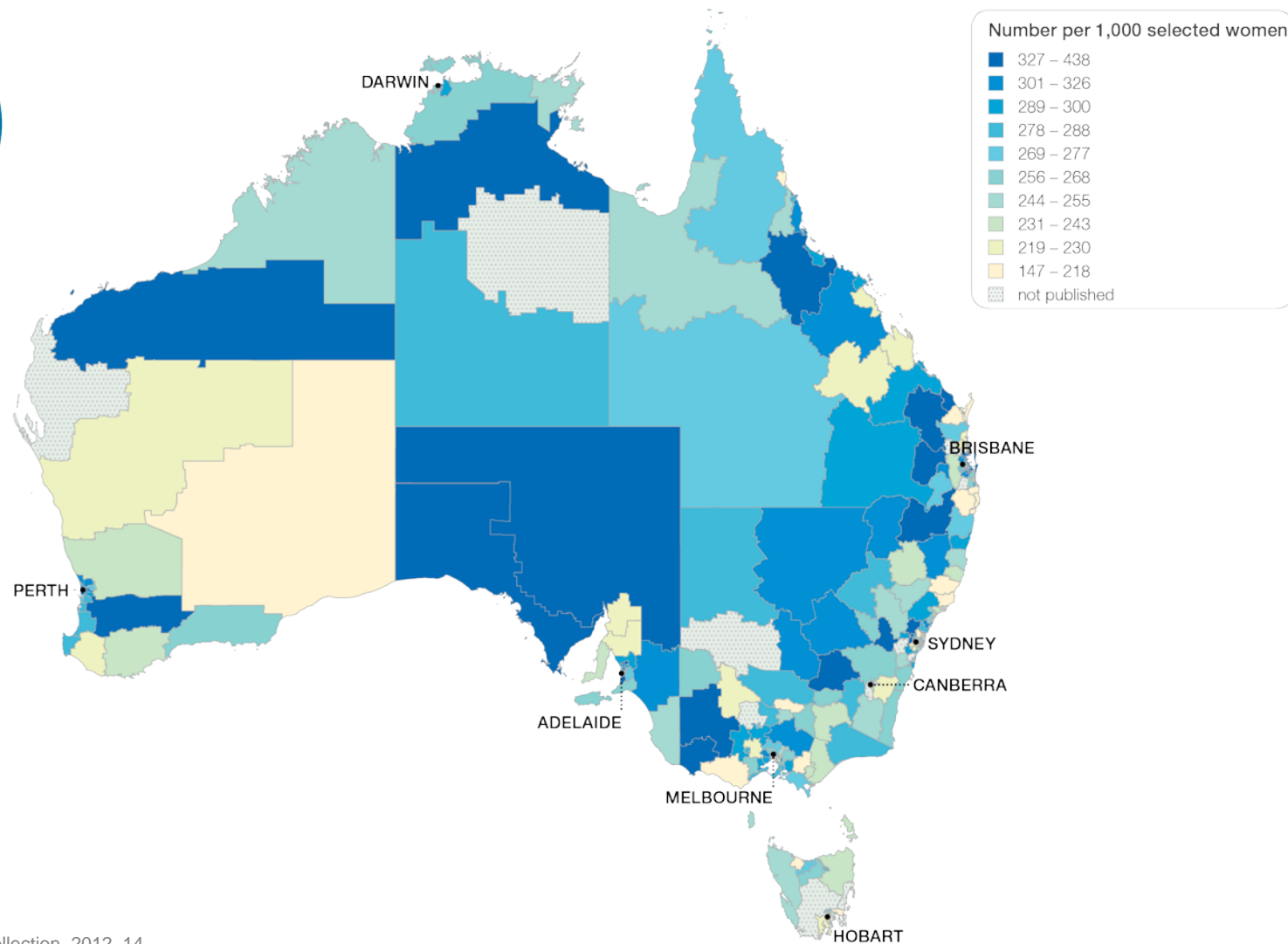


Source: Organisation for Economic Co-operation and Development. Health at a glance 2015: health care activities. Paris: OECD; 2015.



3.4 Caesarean section 20–34 years

3.0x
AS HIGH
in the highest rate area
compared to the
lowest rate area



National Perinatal Data Collection, 2012–14

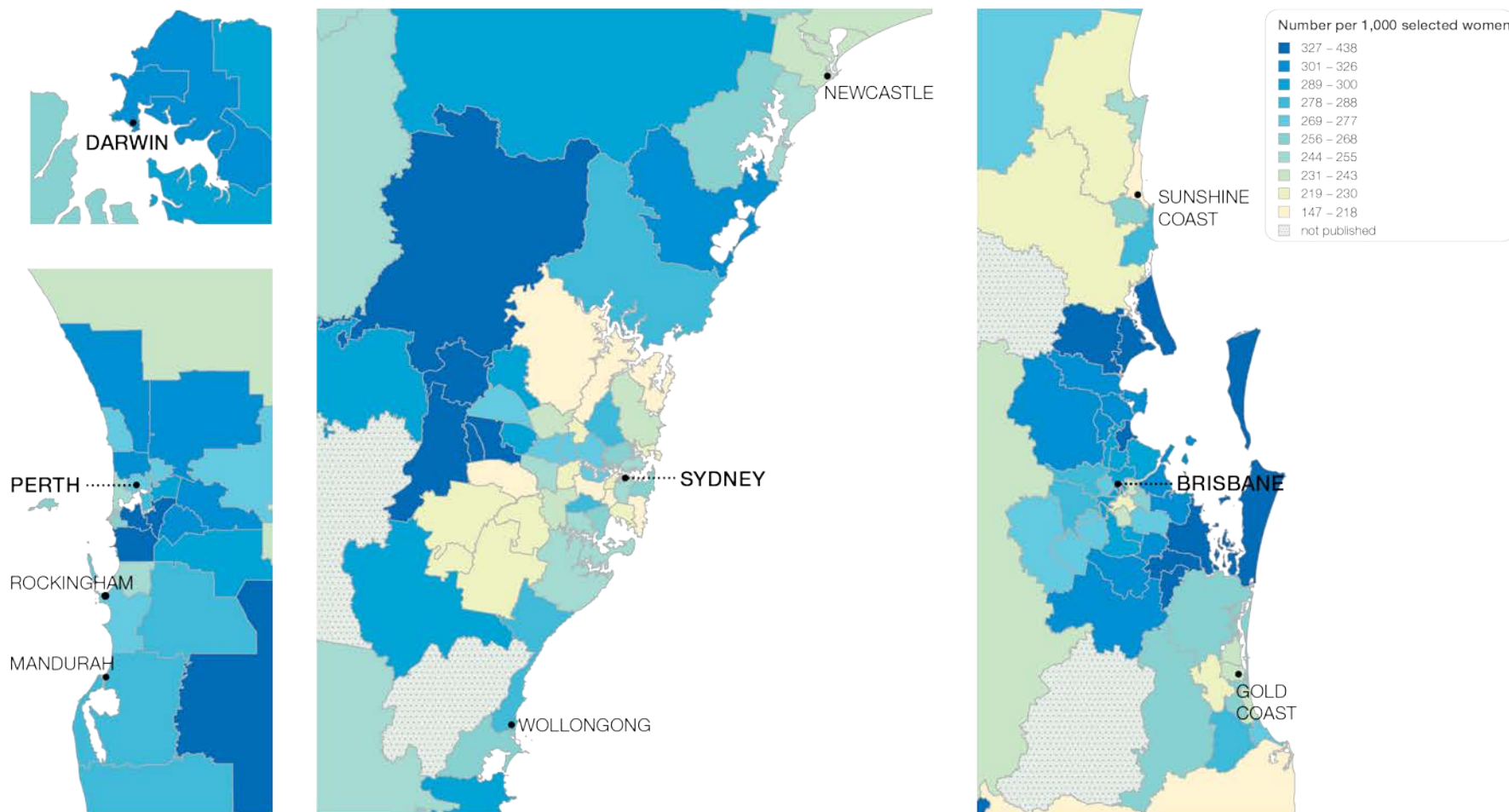


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3.4 Caesarean section 20–34 years



National Perinatal Data Collection, 2012–14

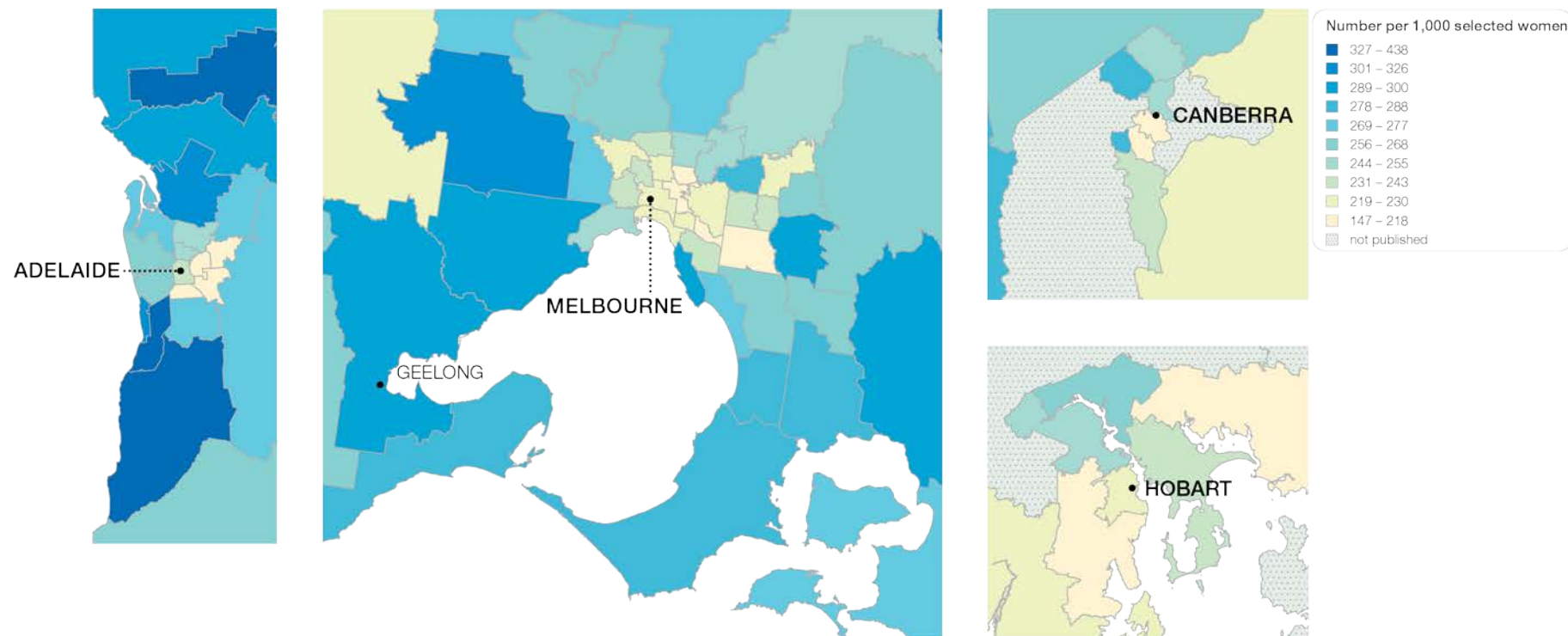


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3.4 Caesarean section 20–34 years



National Perinatal Data Collection, 2012–14



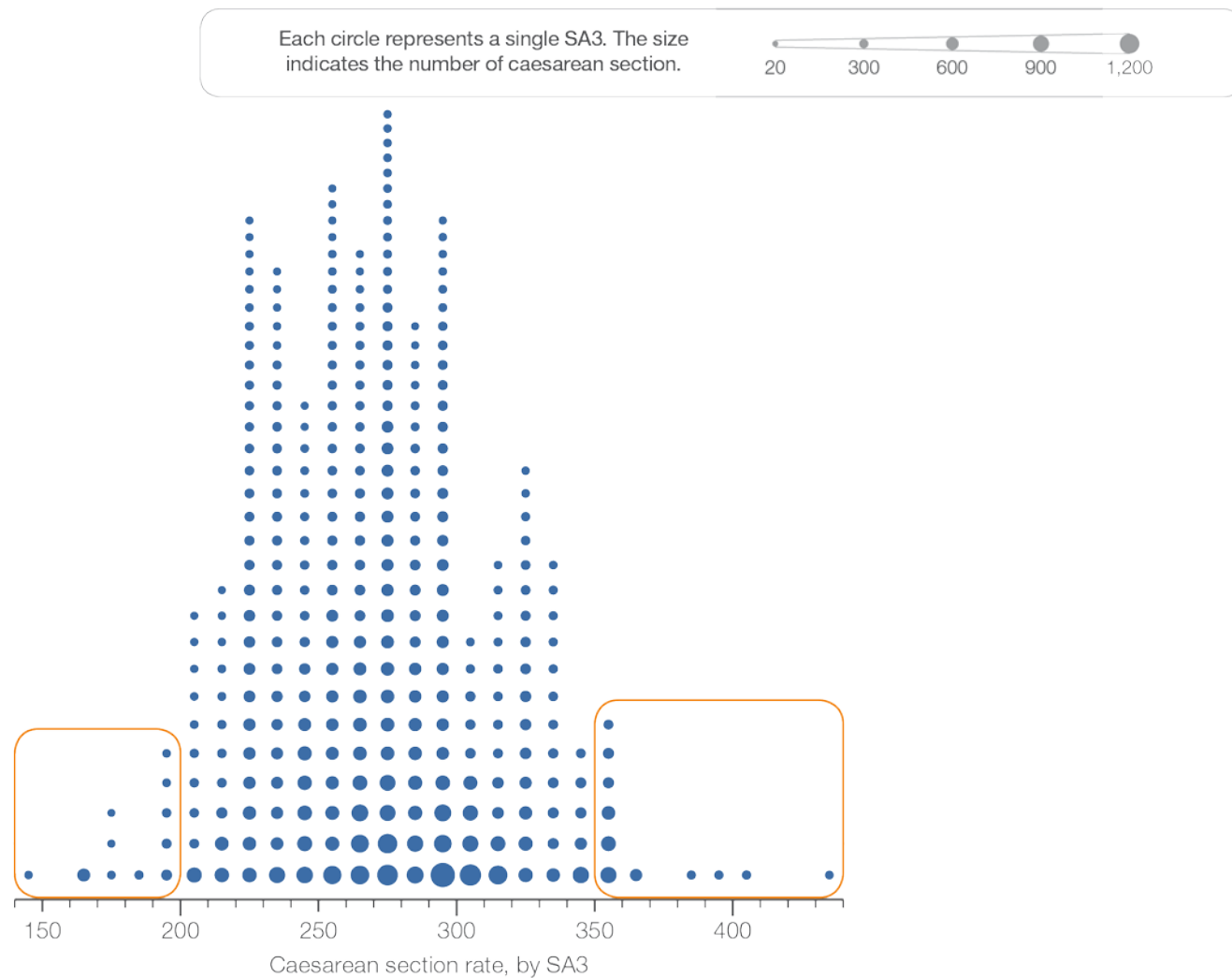
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3.4 Caesarean section 20–34 years

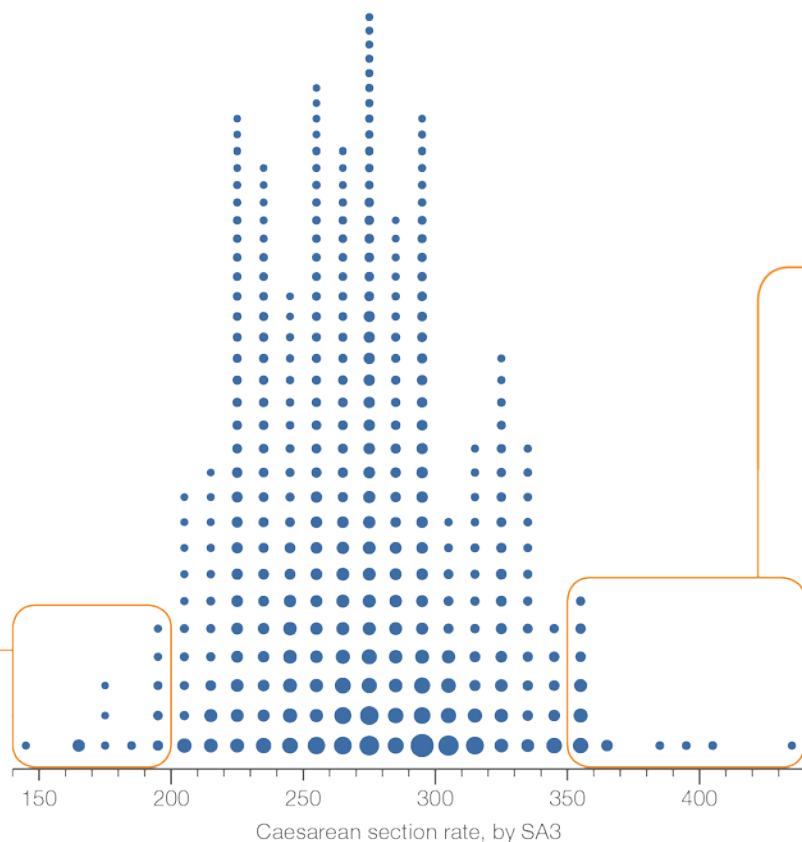


National Perinatal Data Collection, 2012–14



3.4 Caesarean section 20–34 years

Each circle represents a single SA3. The size indicates the number of caesarean section.



Highest rate areas

SA3	State	Rate	Caesarean section
Bribie - Beachmere	Qld	438	73
Outback - North and East	SA	400	116
Glenelg - Southern Grampians	Vic	393	112
Inverell - Tenterfield	NSW	389	109
Wagga Wagga	NSW	364	322
Marion	SA	358	423
Cleveland - Stradbroke	Qld	358	242
Richmond - Windsor	NSW	357	152
Cockburn	WA	356	506
St Marys	NSW	351	239
Penrith	NSW	350	599

Lowest rate areas

SA3	State	Rate	Caesarean section
Baw Baw	Vic	147	62
Fairfield	NSW	168	376
Port Douglas - Daintree	Qld	170	20
Stonnington - East	Vic	173	78
Great Lakes	NSW	177	33
Goldfields	WA	188	114
Yarra	Vic	190	233
Richmond Valley - Coastal	NSW	192	131
Norwood - Payneham - St Peters	SA	192	83
Marrickville - Sydenham - Petersham	NSW	193	170
Taree - Gloucester	NSW	198	69

National Perinatal Data Collection, 2012–14



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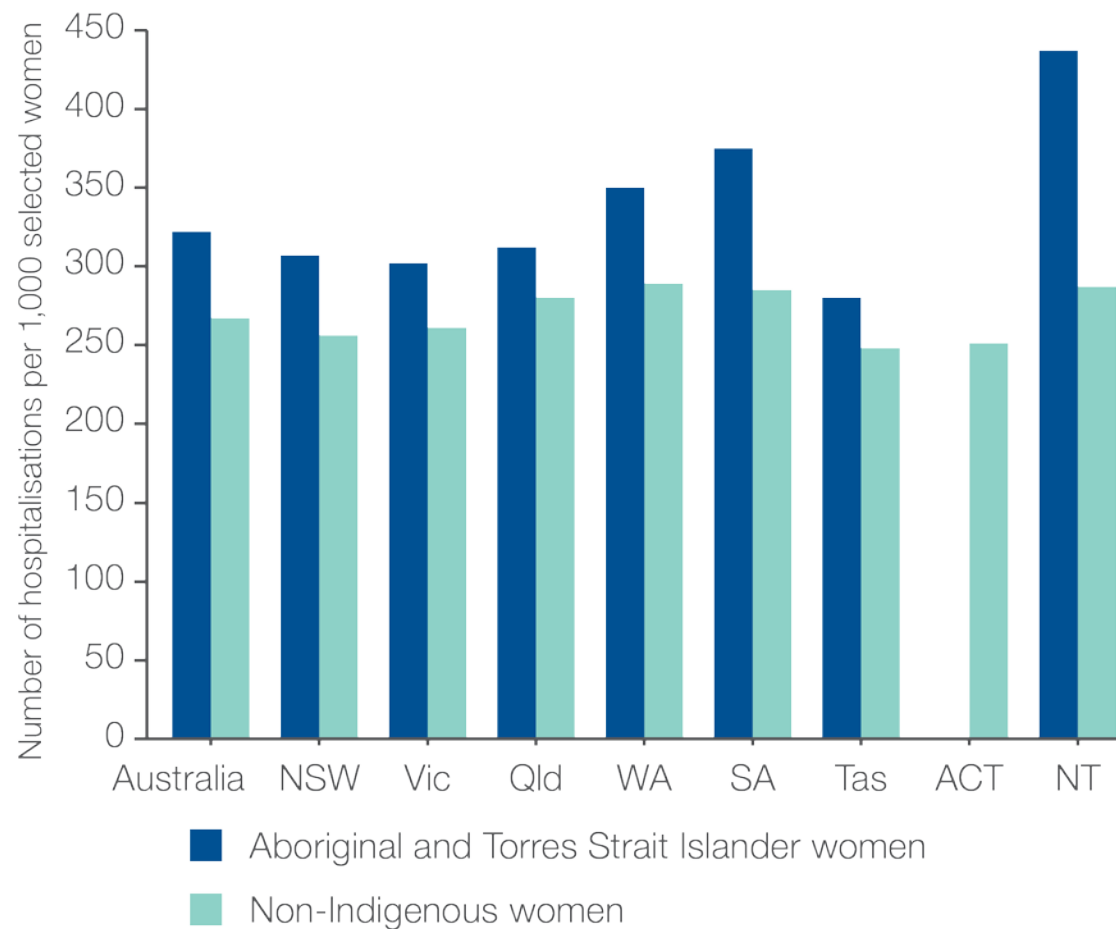
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3.4 Caesarean section 20–34 years

Aboriginal and Torres Strait Islander status



National Perinatal Data Collection, 2012–14



Women's health and maternity

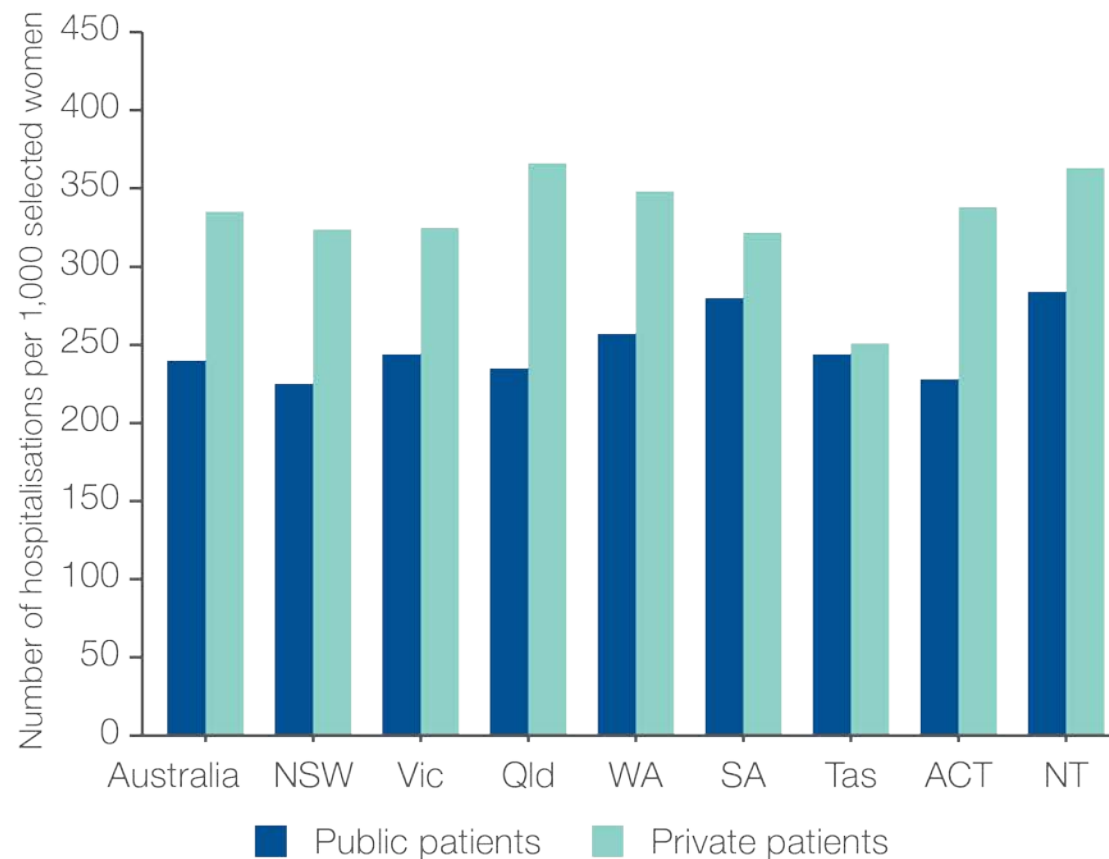
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3.4 Caesarean section 20–34 years

Patient funding status



National Perinatal Data Collection, 2012–14



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3.4 Caesarean section 20–34 years

State and territory



National Perinatal Data Collection, 2012–14



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3.4 Caesarean section 20–34 years

Remoteness and socioeconomic status



National Perinatal Data Collection, 2012–14



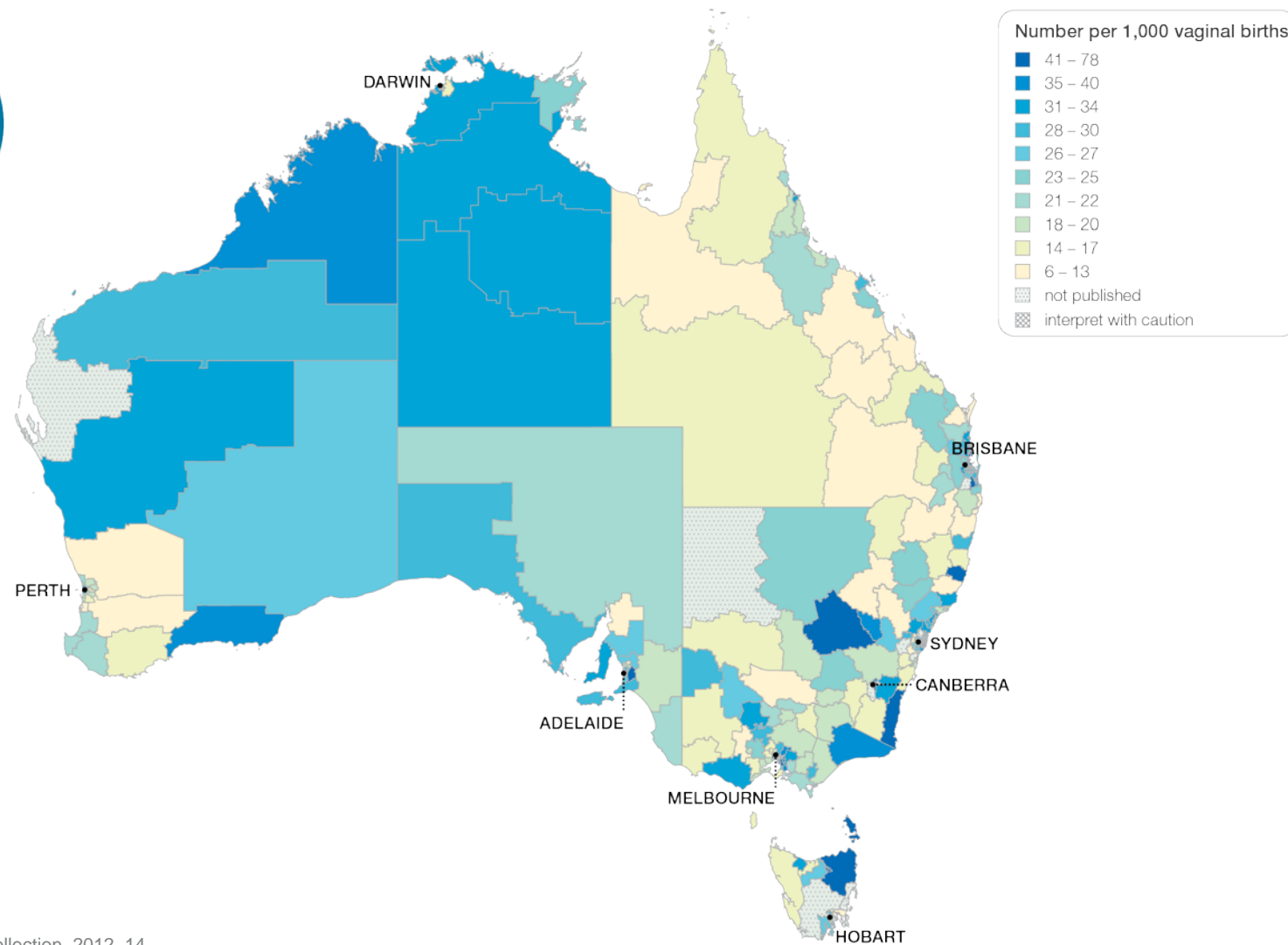
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3.5 Third- and fourth-degree perineal tears

11.8x
AS HIGH
in the highest rate area
compared to the
lowest rate area



National Perinatal Data Collection, 2012–14

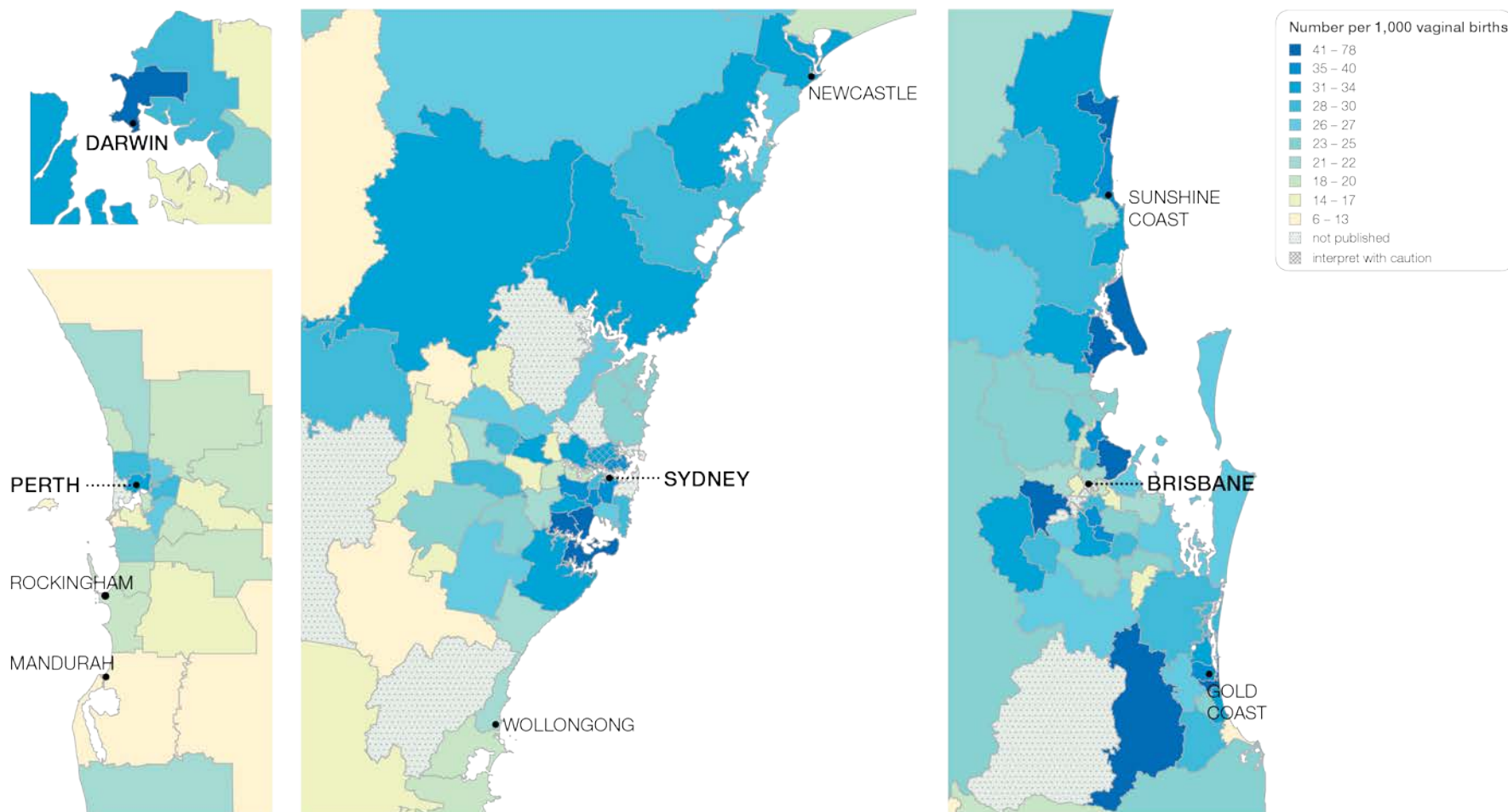


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3.5 Third- and fourth-degree perineal tears



National Perinatal Data Collection, 2012–14

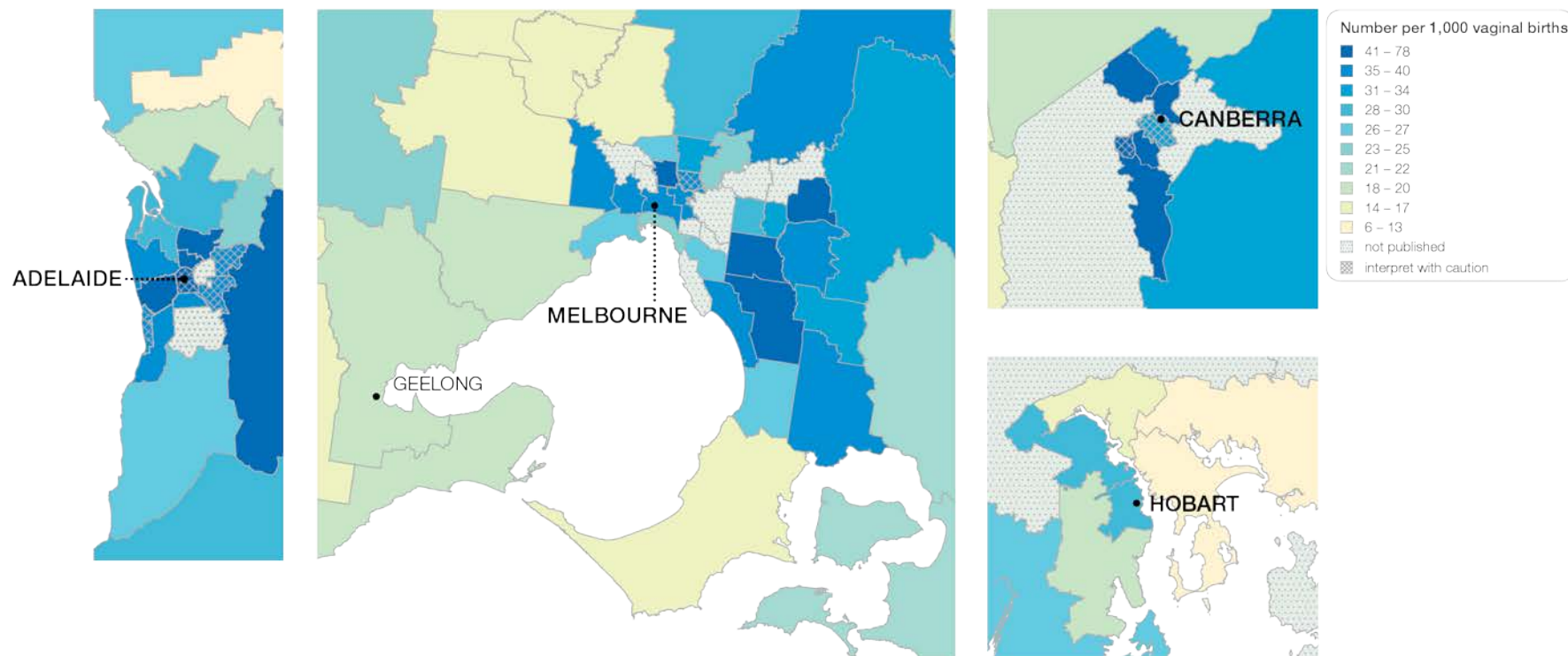


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3.5 Third- and fourth-degree perineal tears



National Perinatal Data Collection, 2012–14



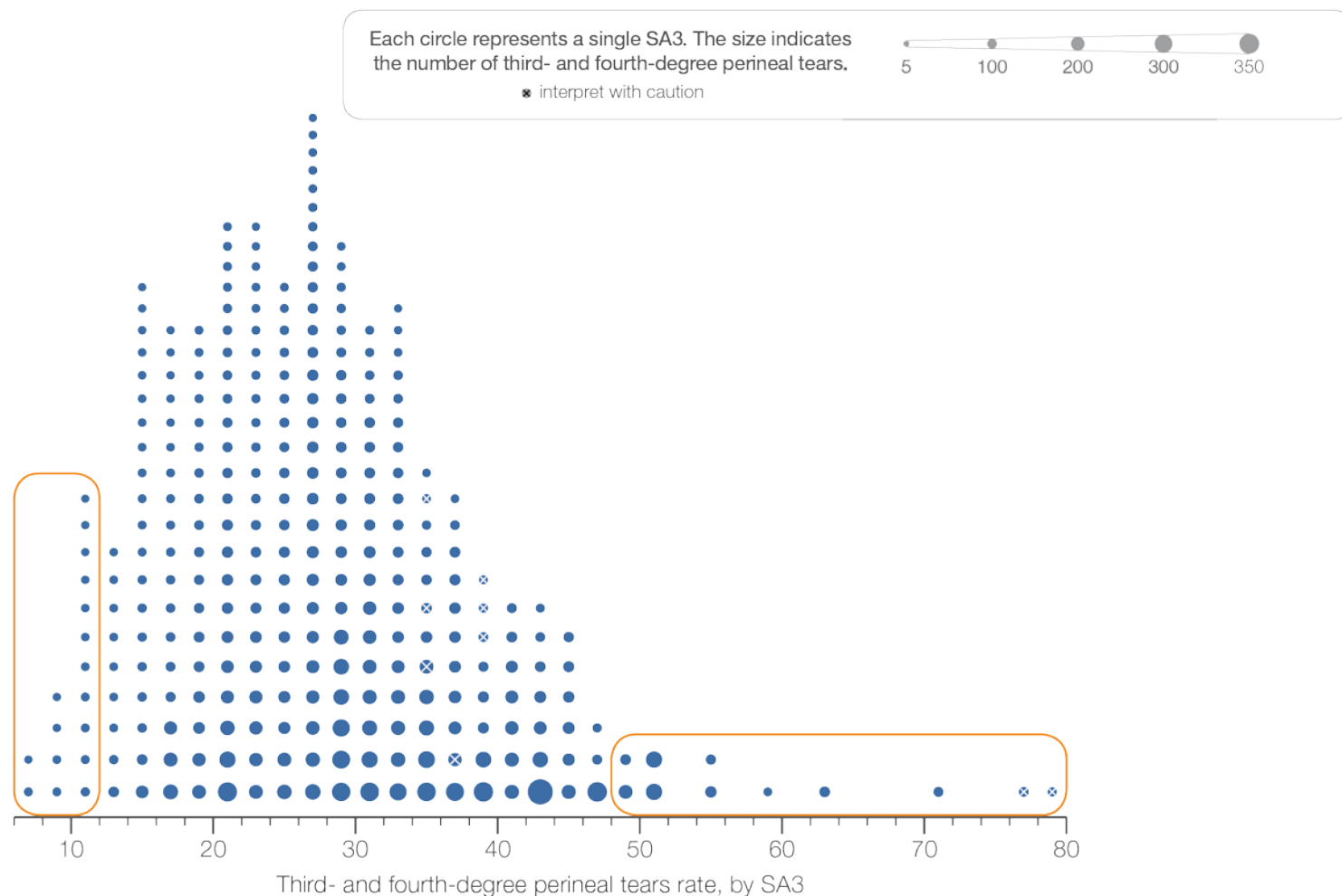
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3.5 Third- and fourth-degree perineal tears



National Perinatal Data Collection, 2012–14

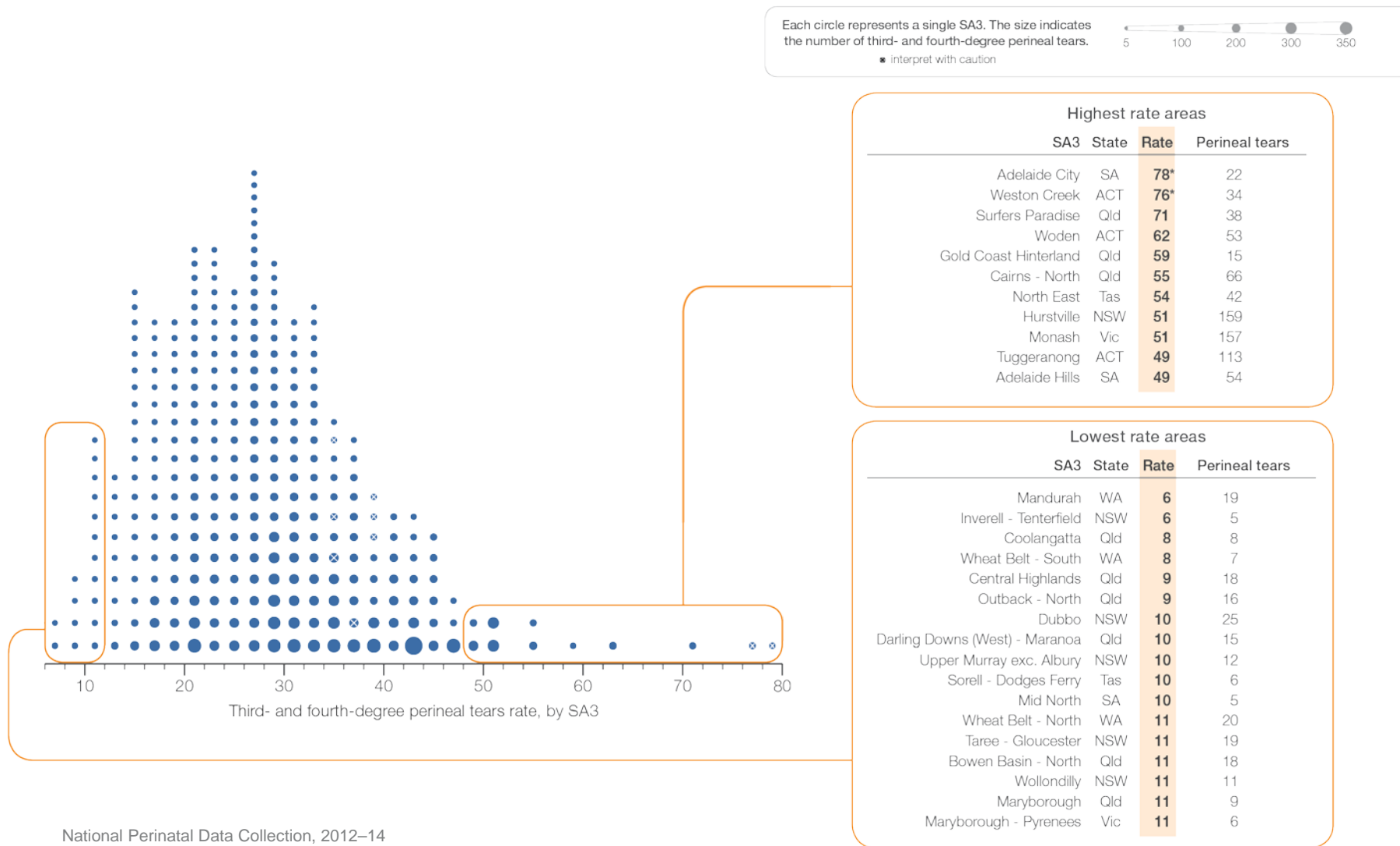


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3.5 Third- and fourth-degree perineal tears



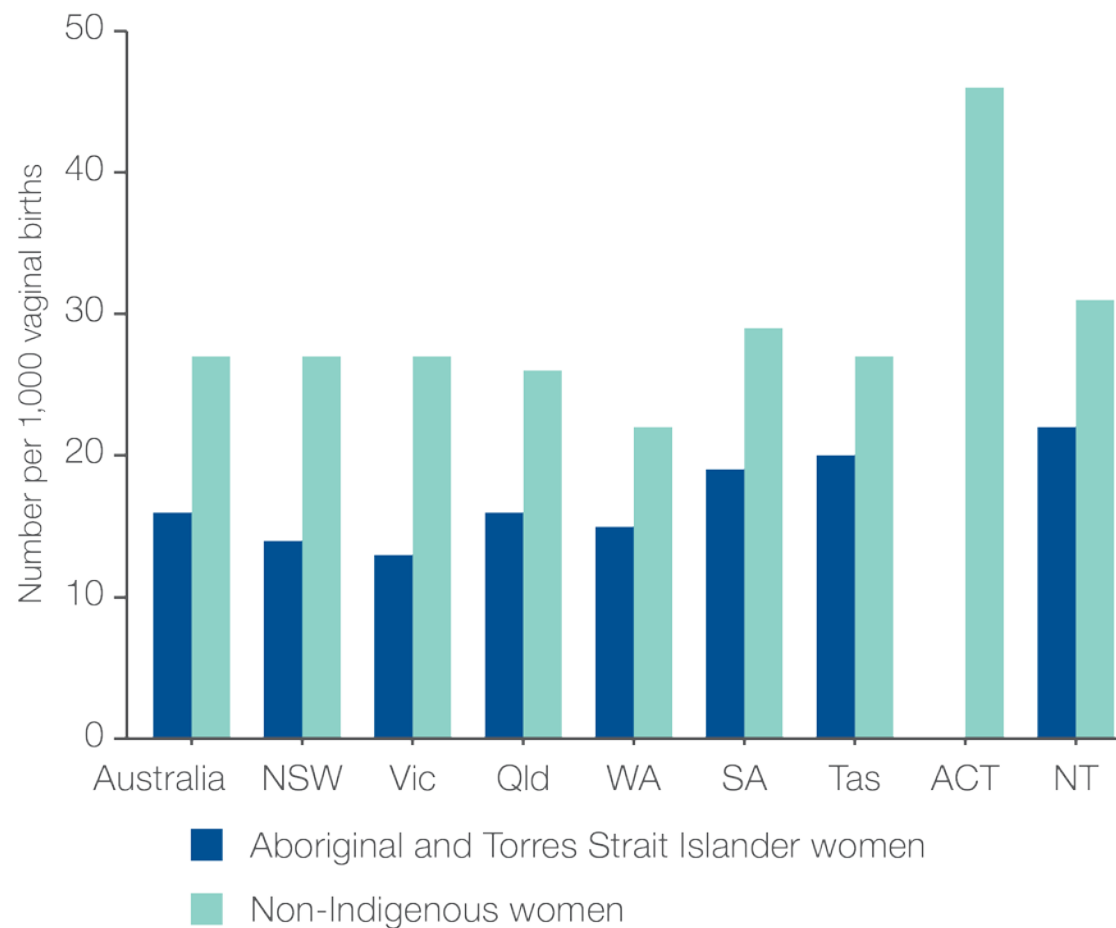
National Perinatal Data Collection, 2012–14





3.5 Third- and fourth-degree perineal tears

Aboriginal and Torres Strait Islander status



National Perinatal Data Collection, 2012–14



Women's health and maternity

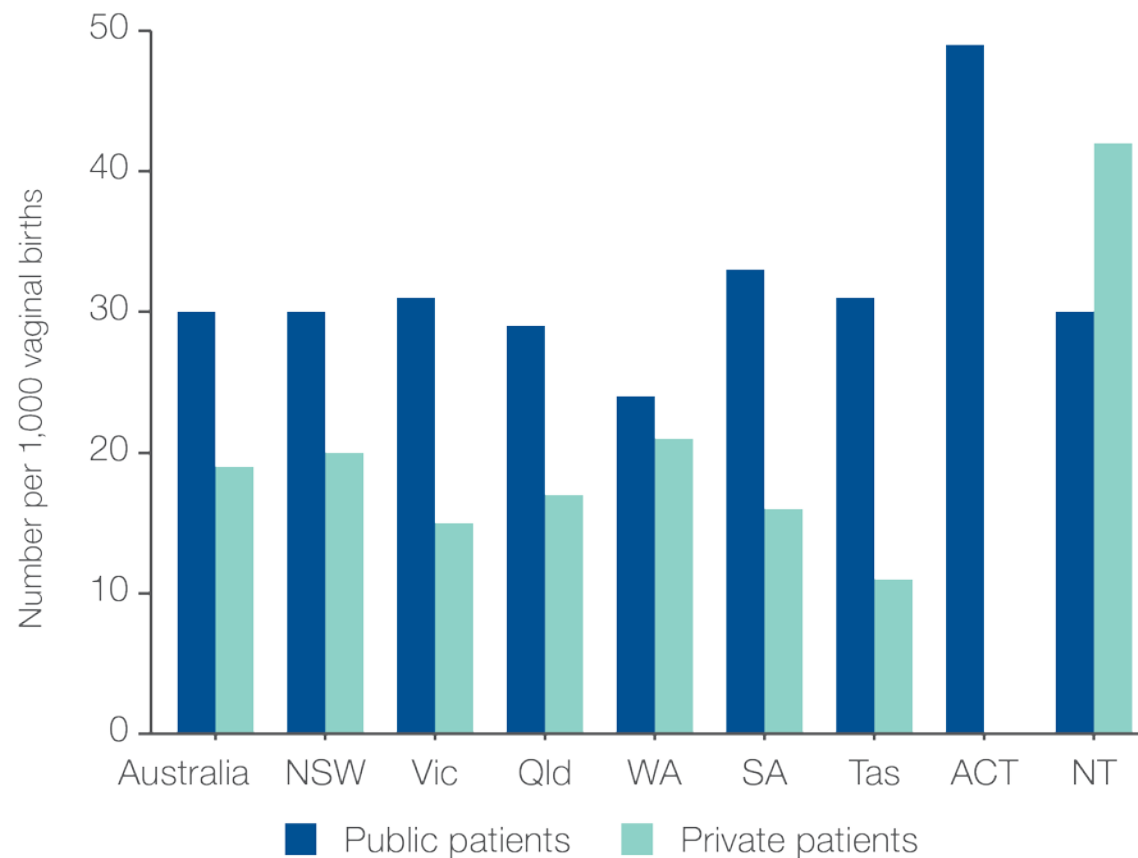
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3.5 Third- and fourth-degree perineal tears

Patient funding status



National Perinatal Data Collection, 2012–14



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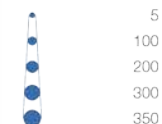


3.5 Third- and fourth-degree perineal tears

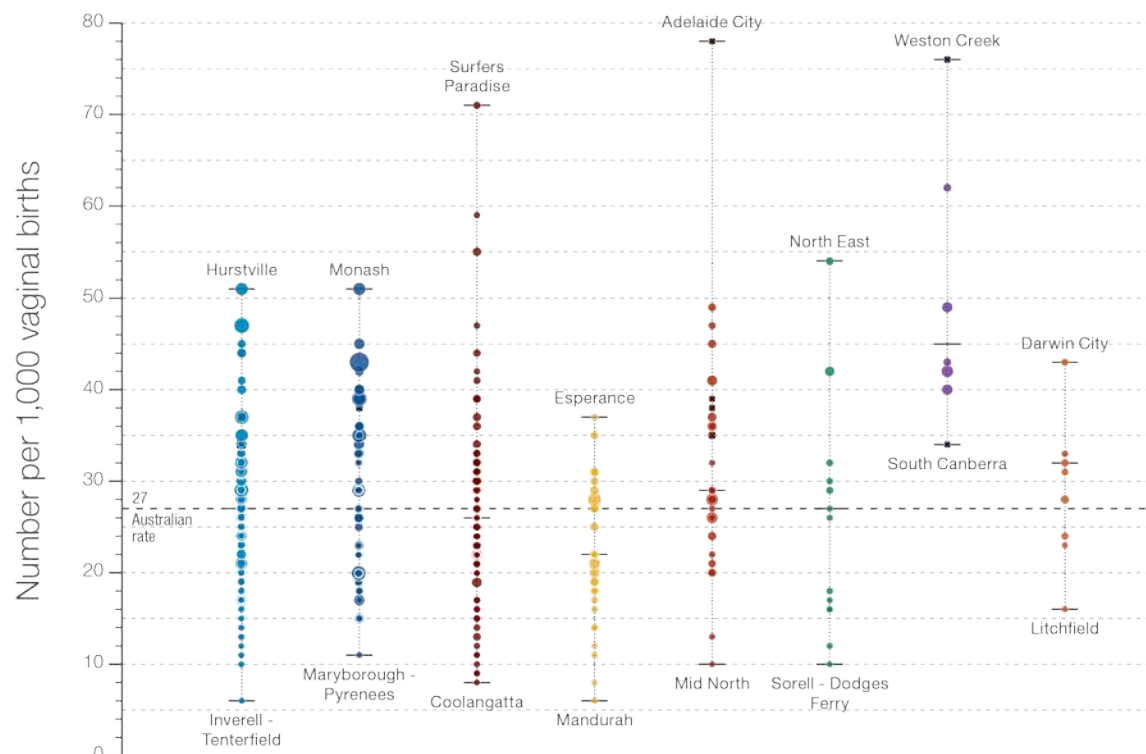
State and territory

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Highest rate	51	51	71	37	78*	54	76*	43
State/territory	27	27	26	22	29	27	45	32
Lowest rate	6	11	8	6	10	10	34*	16
Perineal tears	5,978	4,657	3,567	1,669	1,353	344	544	284

Each circle represents a single SA3. The size indicates the number of third- and fourth-degree perineal tears.



◆ interpret with caution



National Perinatal Data Collection, 2012–14



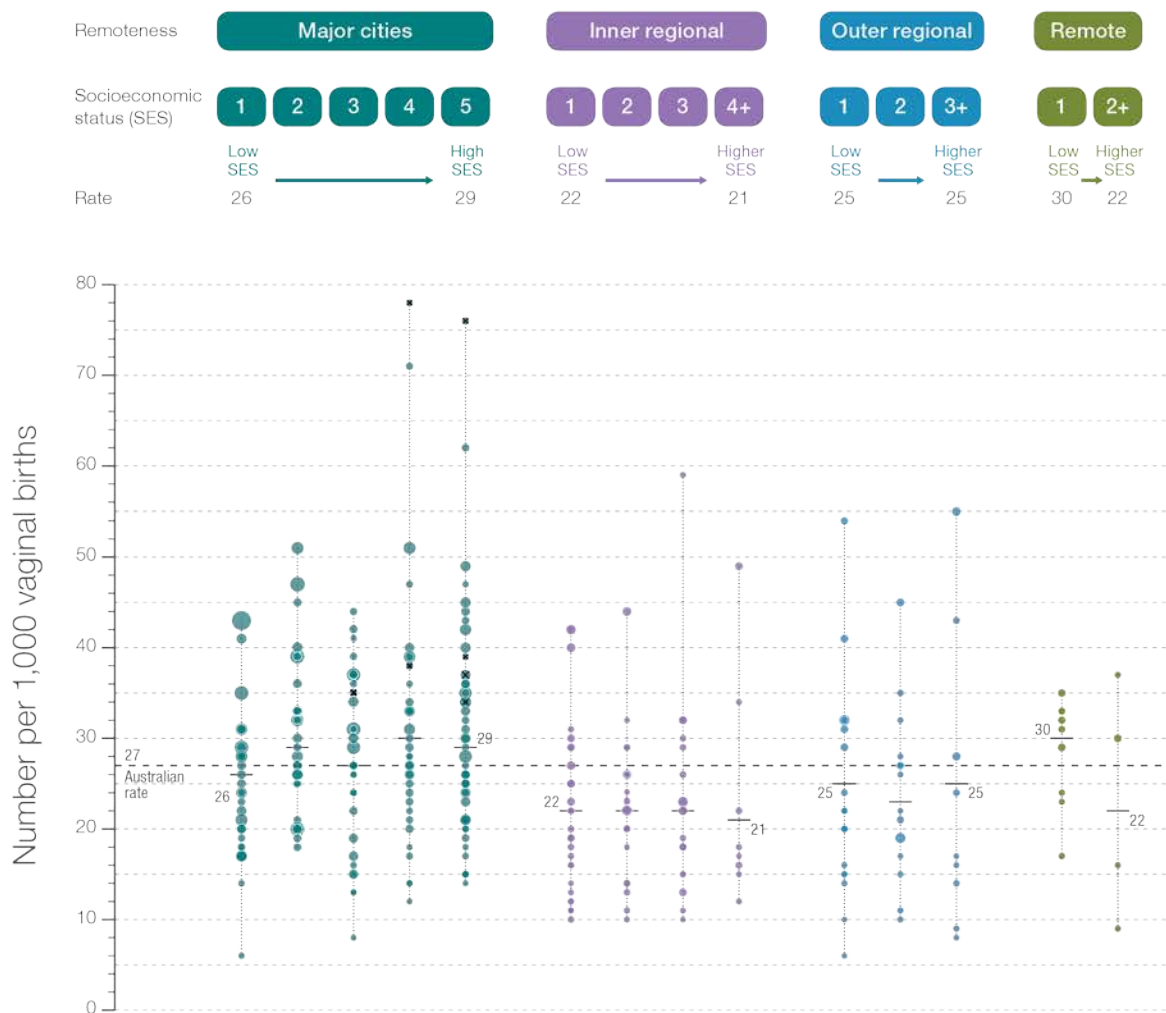
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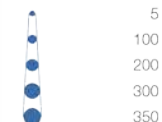


3.5 Third- and fourth-degree perineal tears

Remoteness and socioeconomic status



Each circle represents a single SA3. The size indicates the number of third- and fourth-degree perineal tears.



interpret with caution

National Perinatal Data Collection, 2012–14

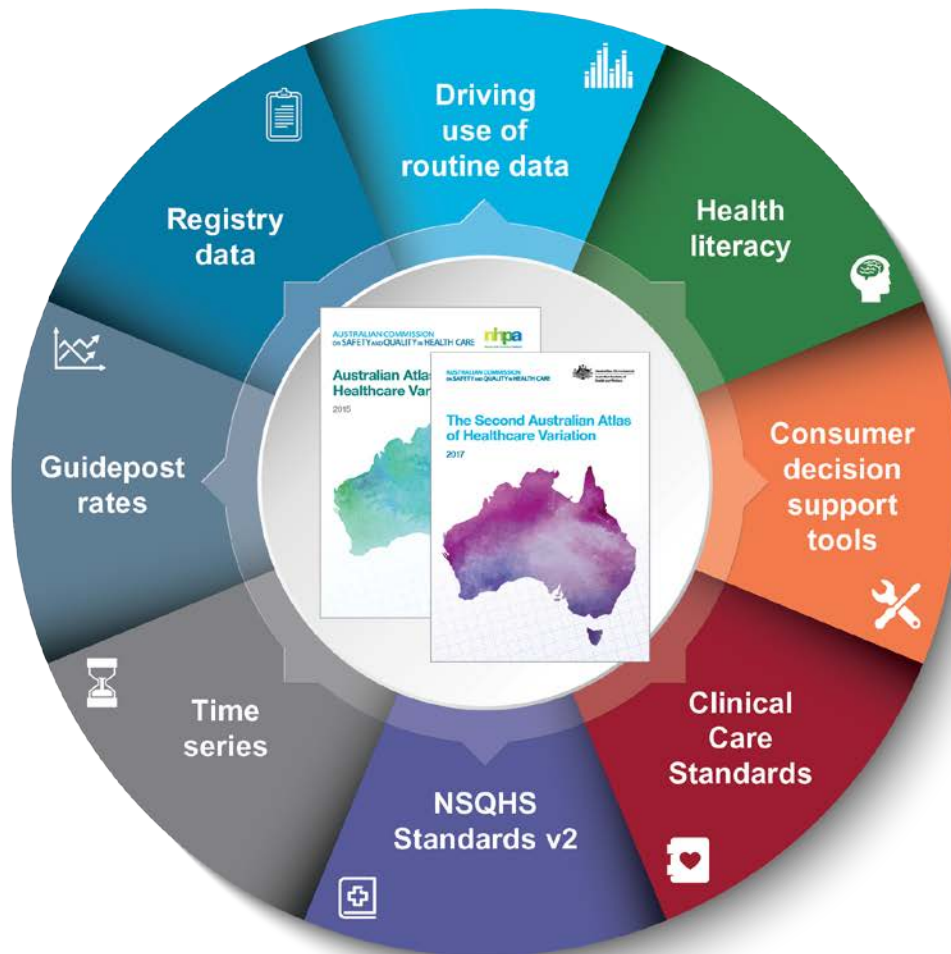


Women's health and maternity

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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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The Second Australian Atlas of Healthcare Variation

2017

