

Exploring healthcare variation in Australia

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Outline

1. Australia and its healthcare system
2. Geographic variation in 8 hospital procedures
3. What next?

@ACSQHC

@lukelawomirski

#healthcarevariation

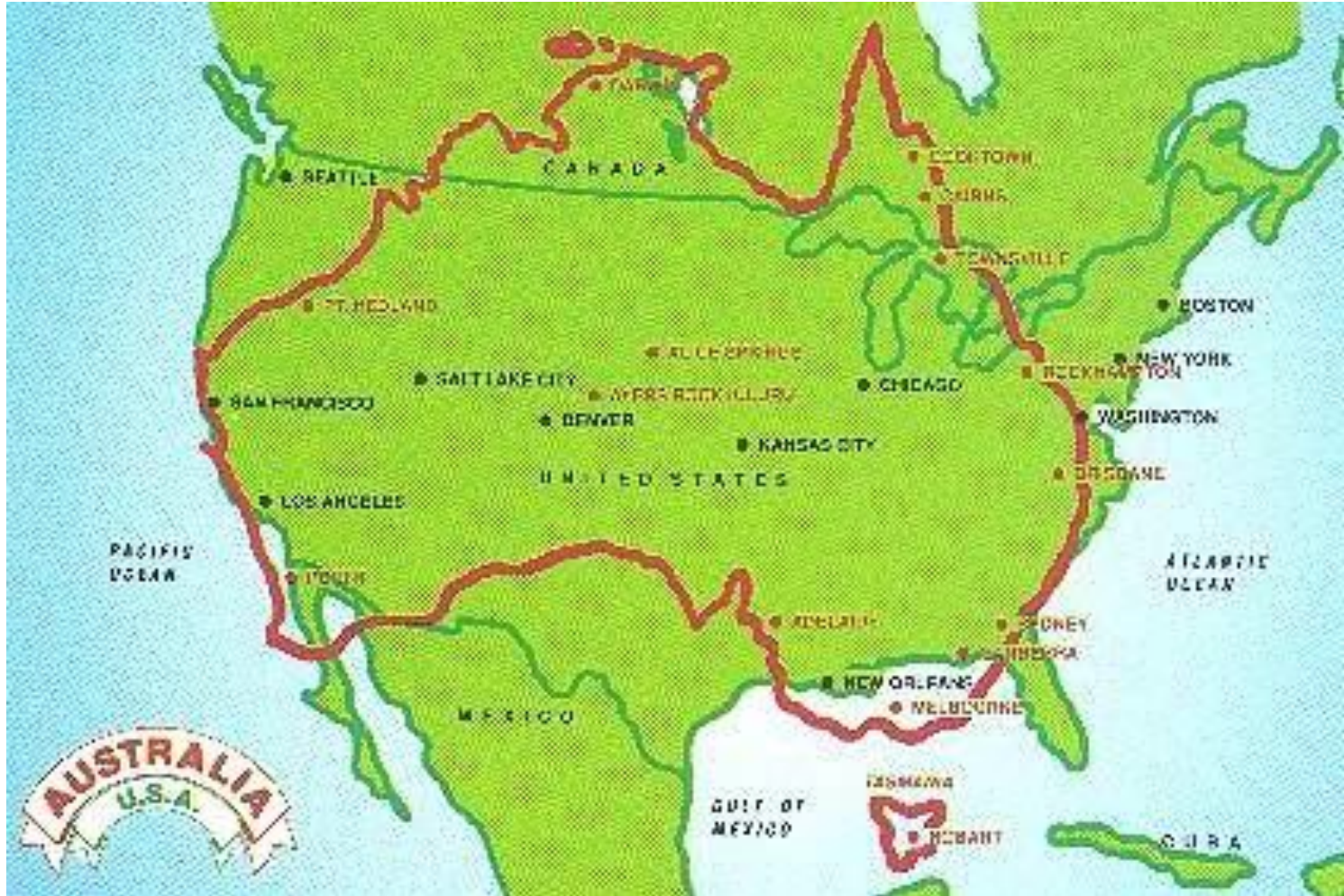
It's a big country!



Australia and Europe Area size comparison

Darwin to Perth 4396km • Perth to Adelaide 2707km • Adelaide to Melbourne 726km
Melbourne to Sydney 887km • Sydney to Brisbane 972km • Brisbane to Cairns 1748km





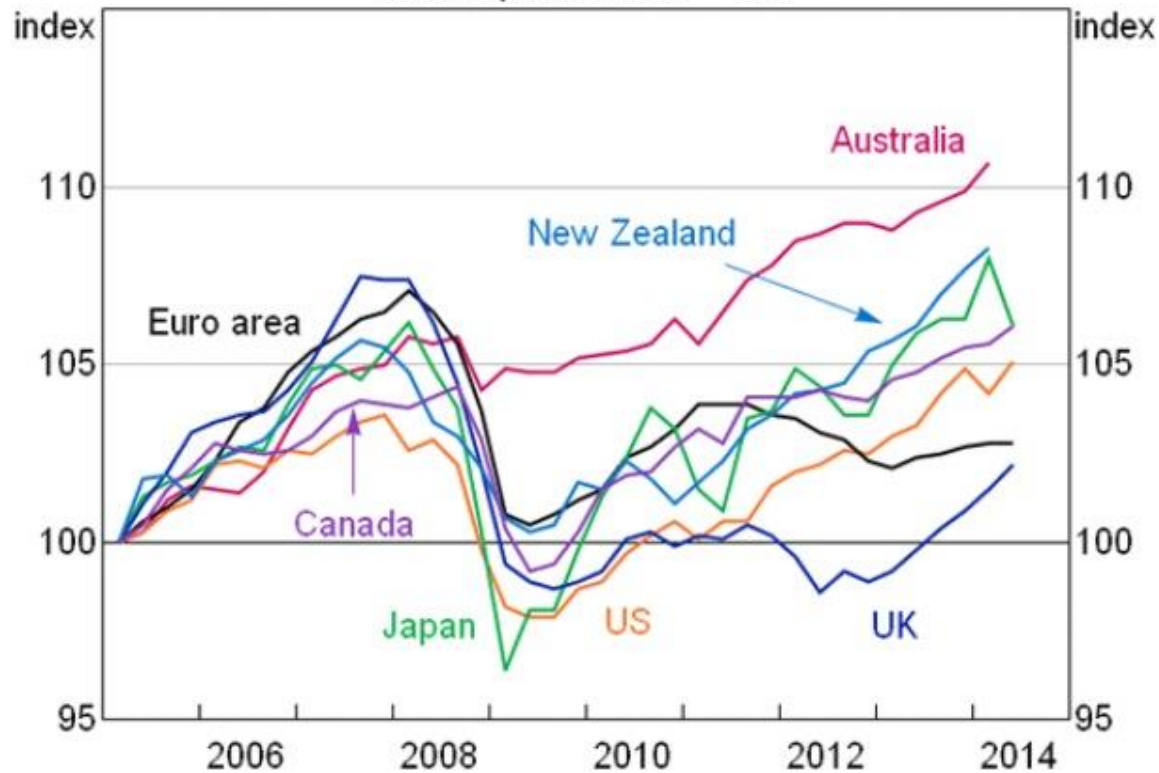


- 22M people ($\sim 3/\text{km}^2$)
- Highly urbanised
- $\sim 3\%$ indigenous (Aboriginal & Torres Strait Islander)
- Federation (since 1900)
 - 9 governments/legislatures
 - 6 state & 2 territory
 - Commonwealth (Federal)

Prosperous country

Real GDP per Capita*

March quarter 2005 = 100

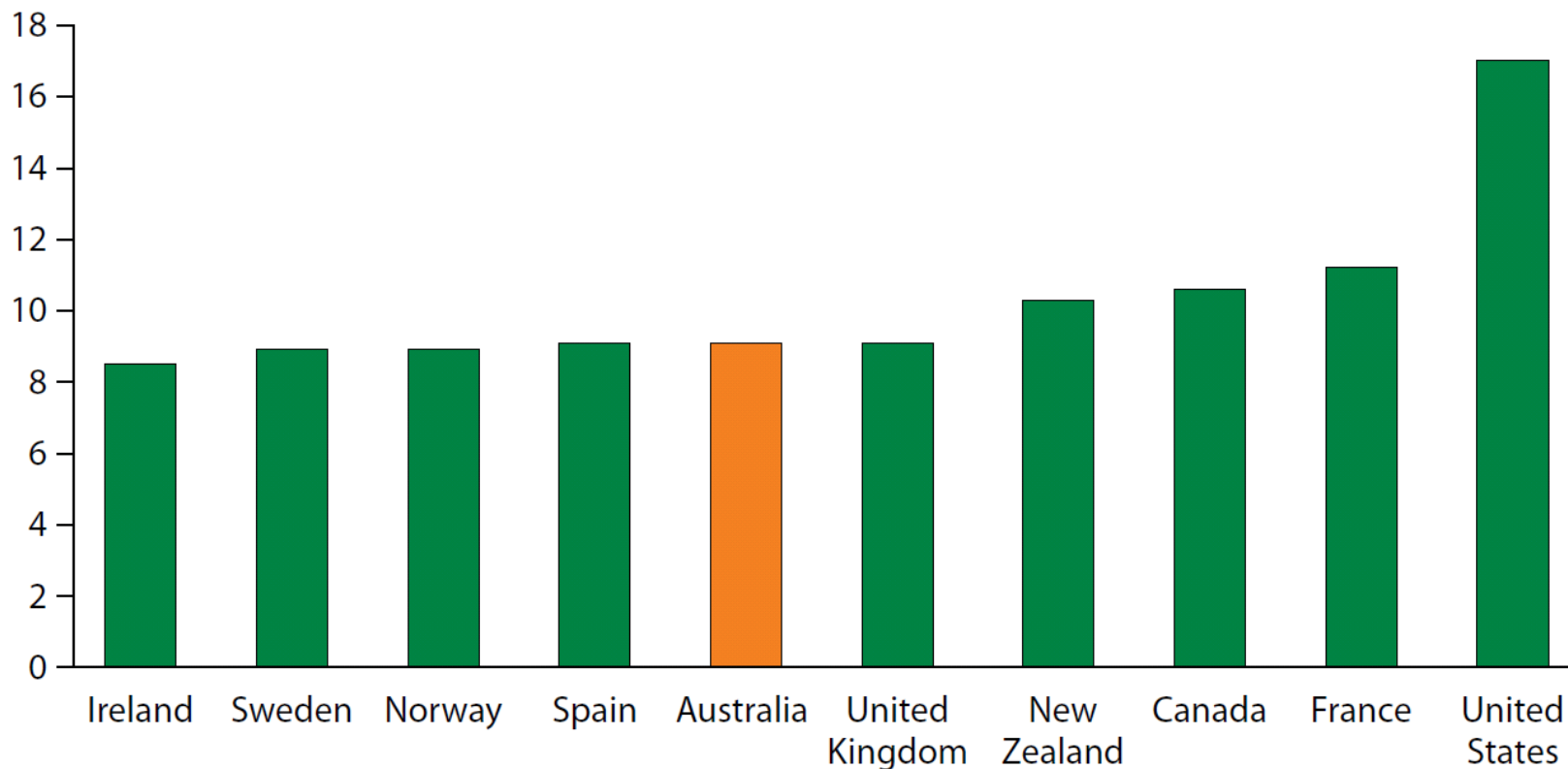


* Data are as of 2 September, 2014

Sources: ABS; Thomson Reuters

Health to GDP

Health to GDP ratio (per cent)

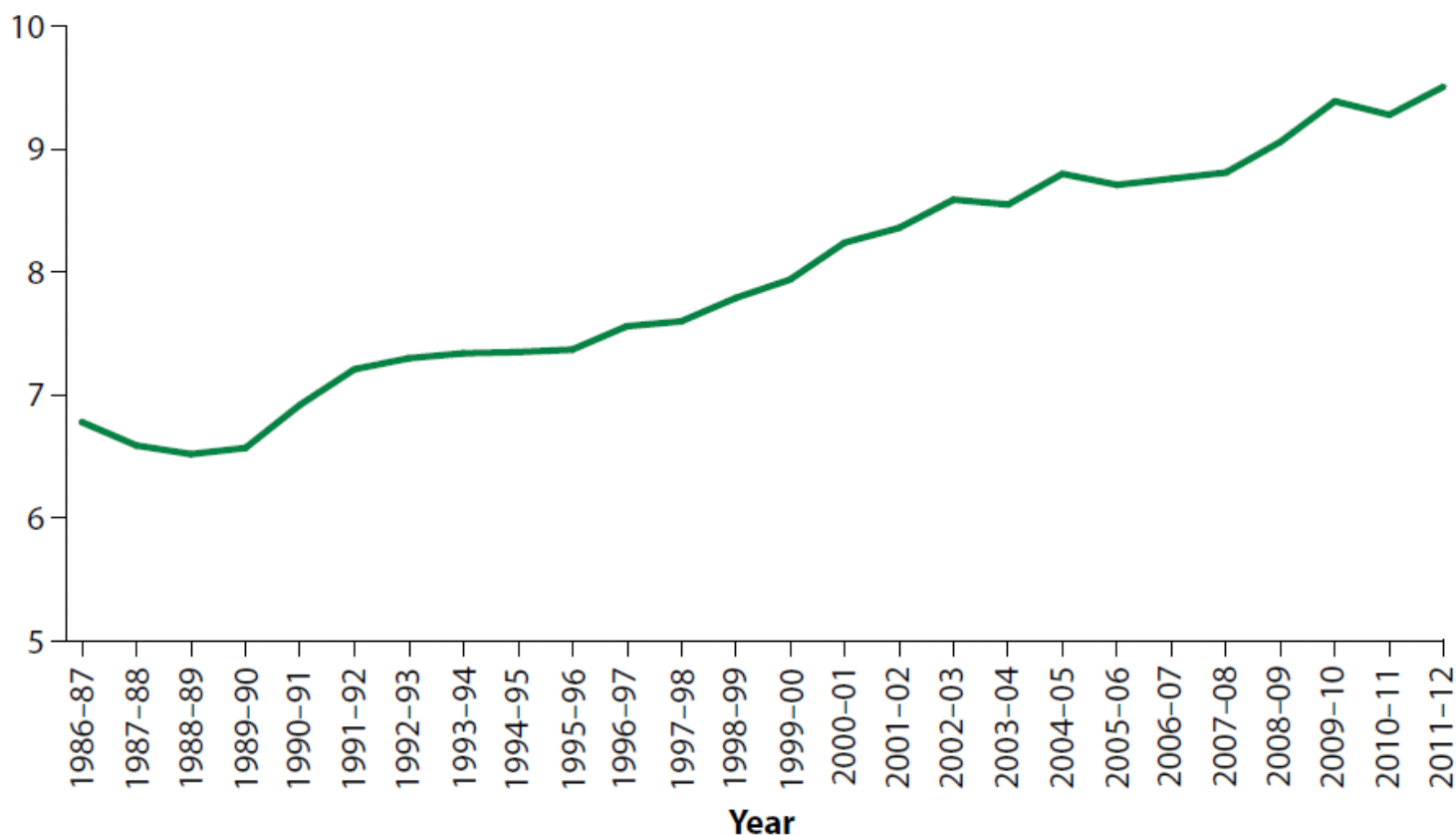


Source: AIHW 2013a.

Health expenditure as a proportion of GDP, selected OECD countries, 2011

Health expenditure

Health expenditure to GDP ratio (per cent)



Source: AIHW health expenditure database.

Total health expenditure to GDP ratio, 1986-87 to 2011-12

Healthcare Funding

Sector	Responsibility	Funding
Primary care	CW*	CW +o.o.p.
Acute care (Public)	State / territory	States CW
Acute care (private)	Insurers & private hospitals (government oversight)	CW, Health ins. +o.o.p.
Medicines	CW (via PBS**)	CW, health ins. +o.o.p
Aged care	CW	Federal +o.o.p

- Multiple funders
- Multiple jurisdictions
- Public/private mix

*CW: Commonwealth

**PBS: Pharmaceutical Benefits Scheme (national scheme subsidising medicines)

Role of the Commission

To lead and coordinate improvements in the safety and quality of health care in Australia by identifying issues and policy directions, and recommending priority areas for action.

OECD Healthcare Variation Study

1. Hip fracture
2. Knee replacement
3. Knee arthroscopy
4. Cardiac catheterisation
5. PCI
6. CABG
7. Caesarean section
8. Hysterectomy

1st national 'small area variation' study in Australia

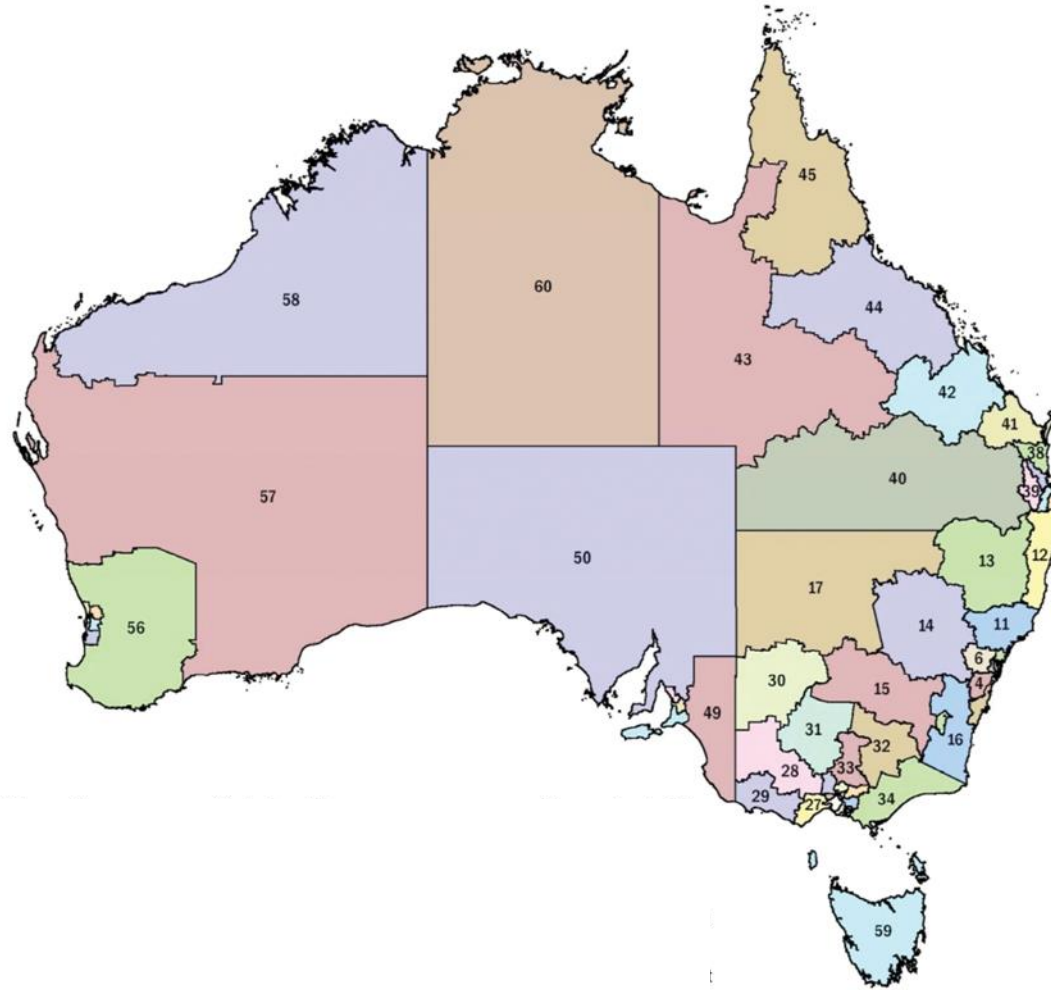


Exploring Healthcare Variation in Australia:

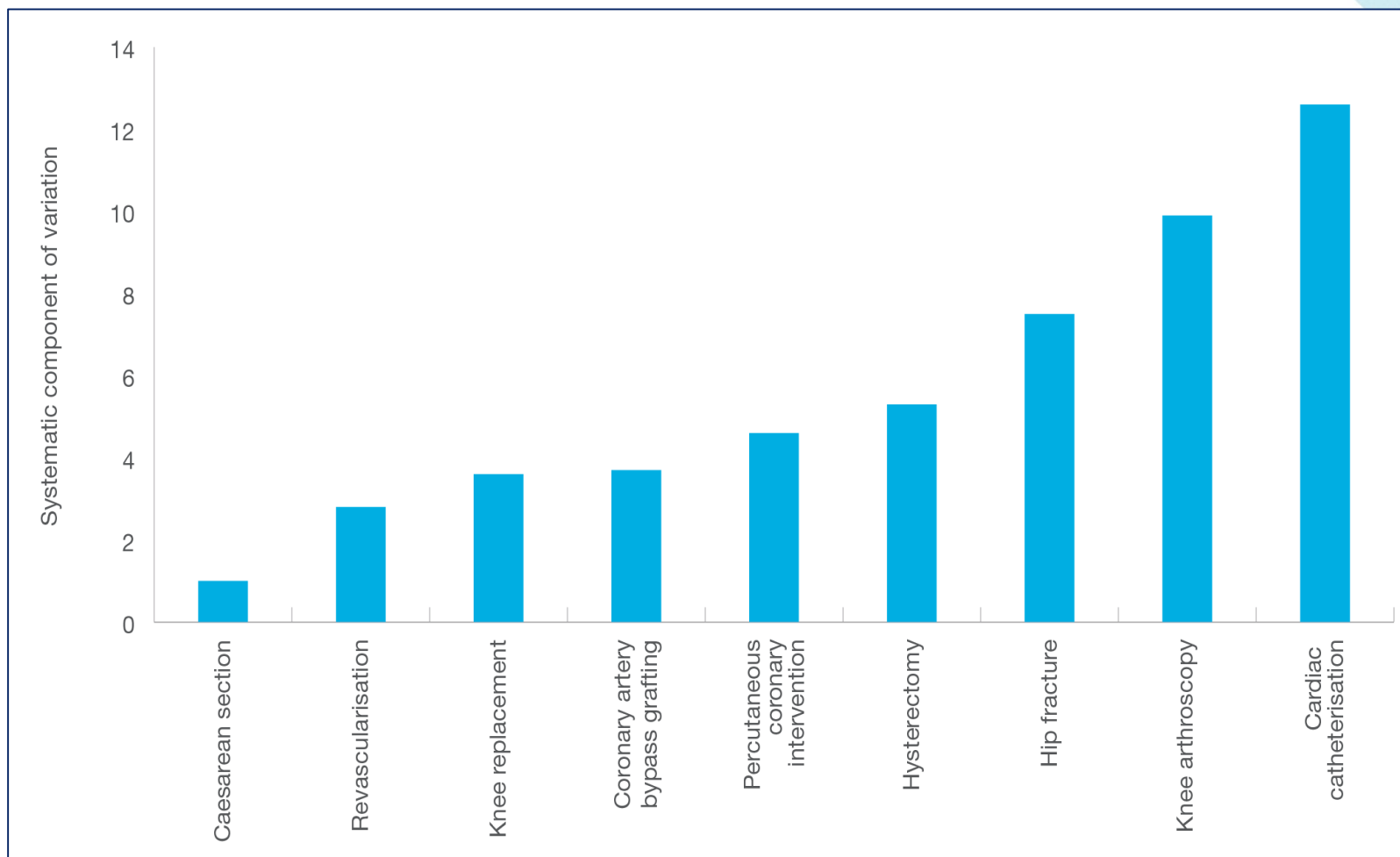
Analyses Resulting
from an OECD Study



Medicare Locals (61)

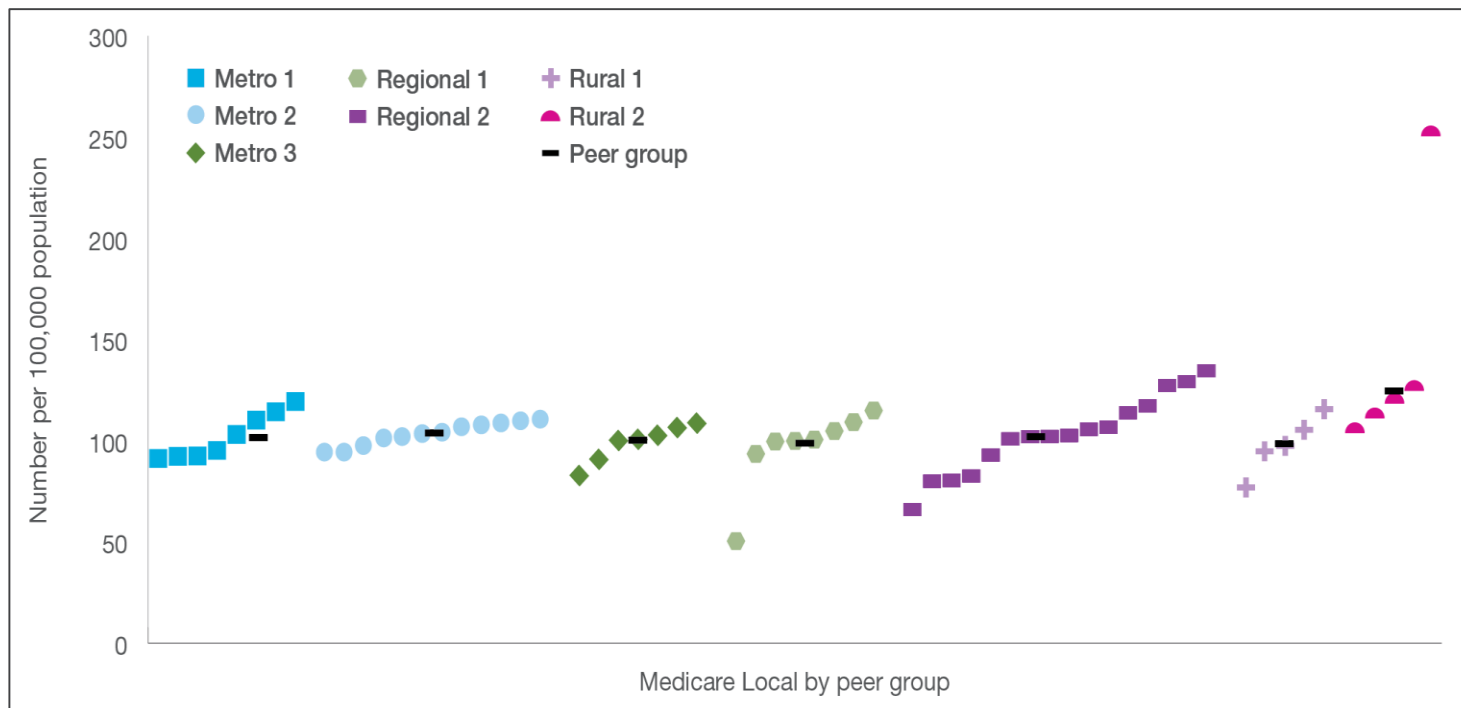


Overview of variation - SCV



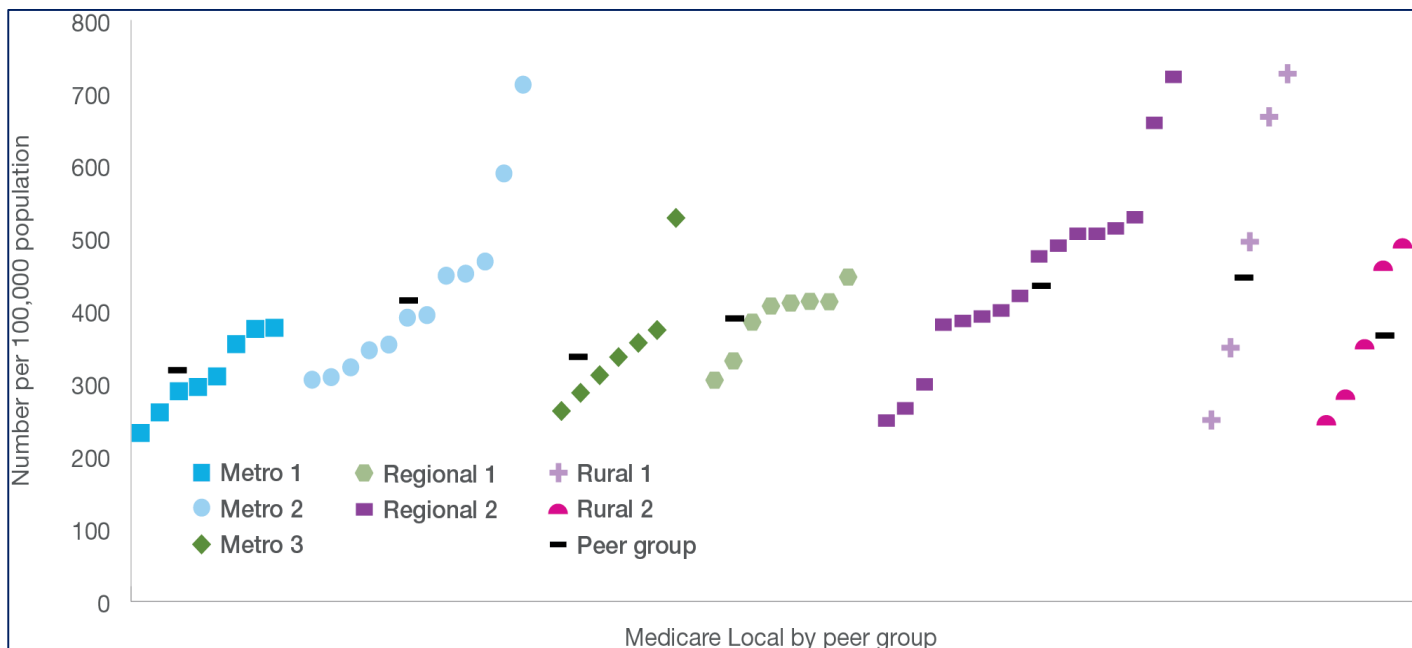
Systematic component of variation by types of admissions, 2010–11

Hip Fracture



Hip fracture	Total admissions	Age and sex standardised rate (ASR)	Lowest ASR	Highest ASR	Fold difference	SCV
Total	19,343	102	50	253	5.1	7.5

Knee Arthroscopy

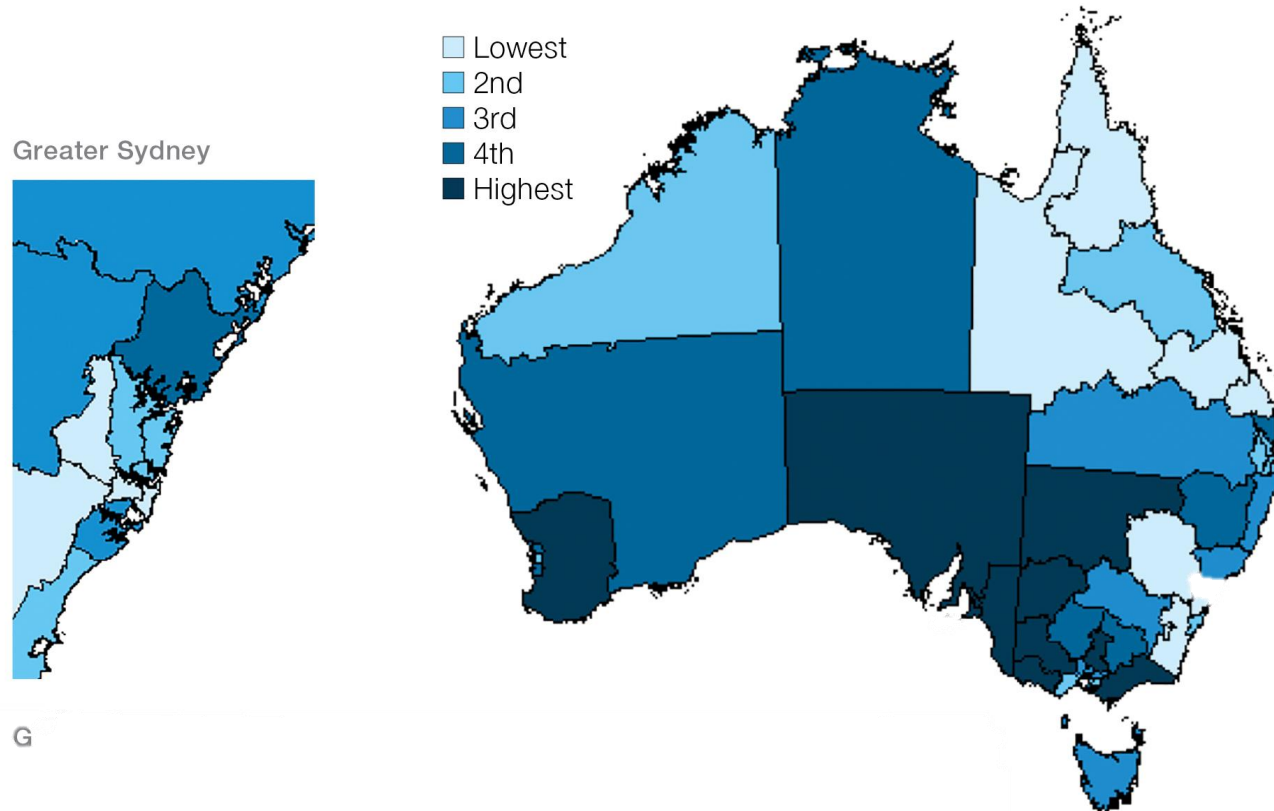


Knee arthroscopy	Total admissions	Age and sex standardised rate (ASR) ^a		Highest ASR ^b	Fold difference	SCV
		75	26			
Public hospitals	13,773	75	26	277	10.7	89.5
Private hospitals	57,314	308	183	568	3.1	7.1
Total	71,087	382	232	726	3.1	9.9

Table 5 Summary measures for admissions for knee arthroscopy by hospital sector, 2010–11

Knee Arthroscopy

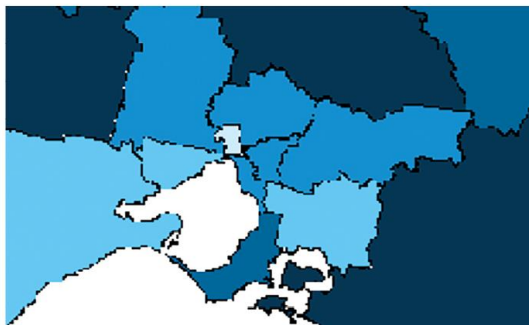
Australia and Greater Sydney



Knee Arthroscopy

Other Australian capital cities

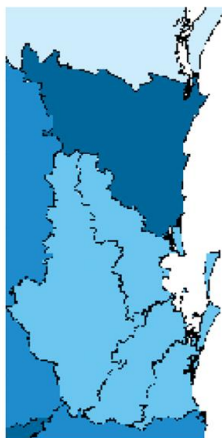
Greater Melbourne



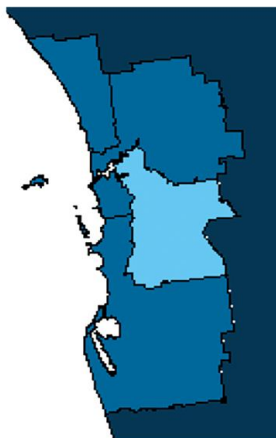
Greater Adelaide



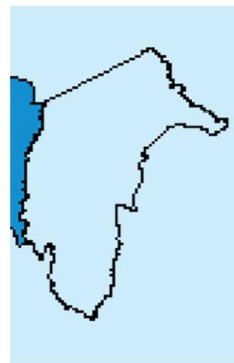
Greater Brisbane



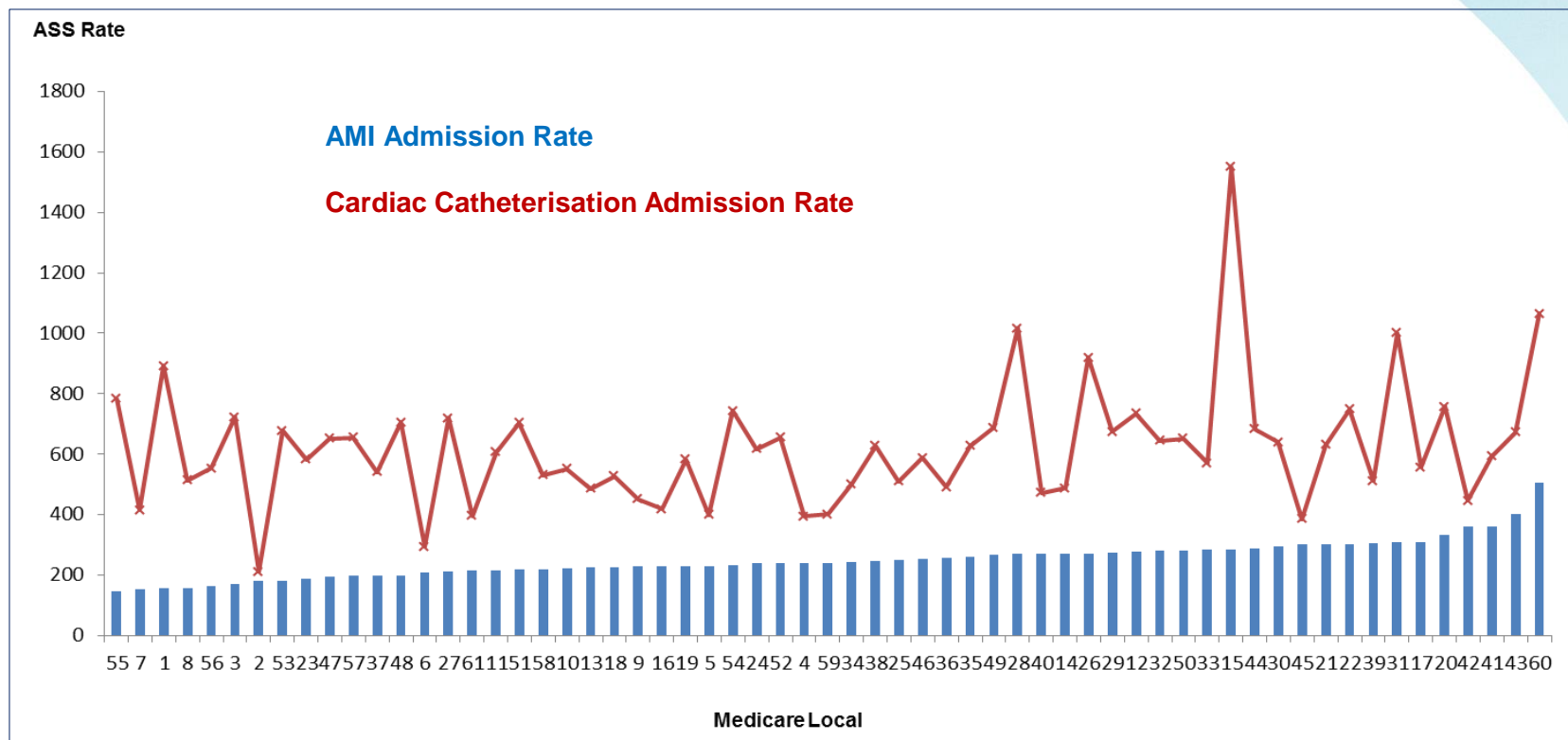
Greater Perth



Australia Capital Territory



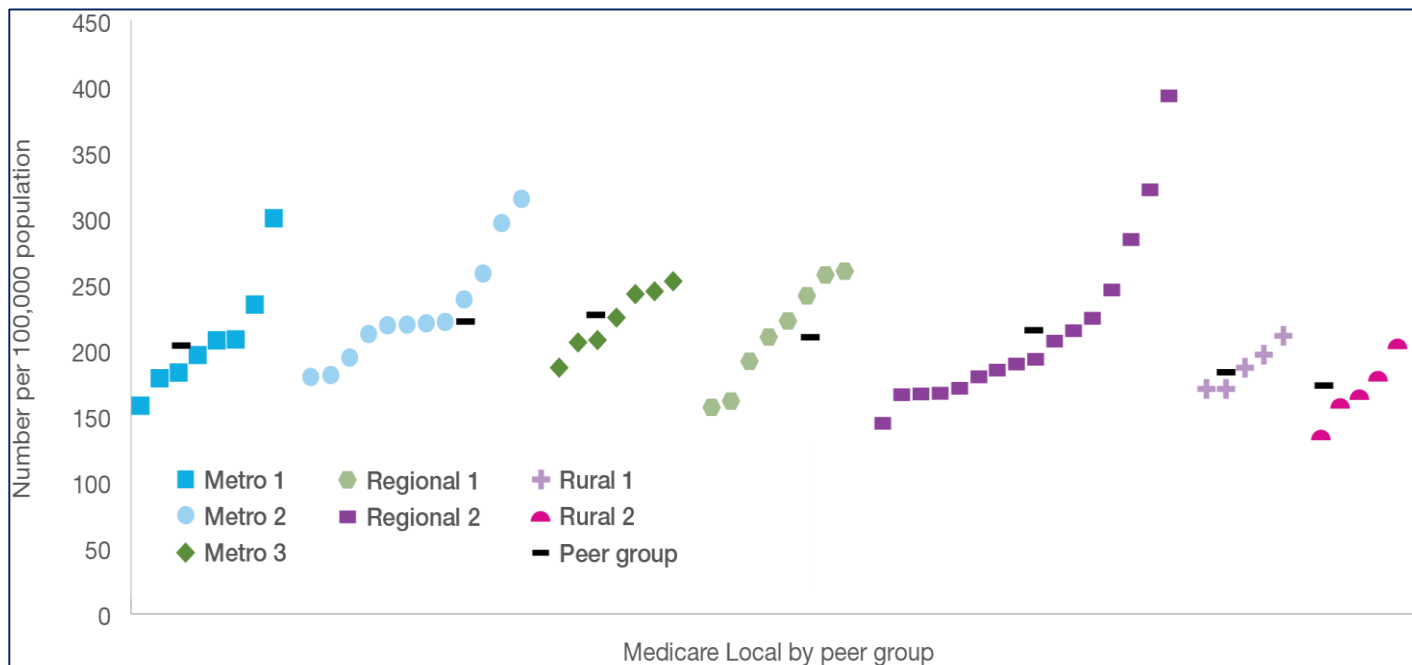
Cardiac Catheterisation



Cardiac Catheterisation	Total admissions	Age and sex standardised rate (ASR)	Lowest ASR	Highest ASR	Fold difference	SCV
Public hospitals	47,376	272	55	527	9.6	17.4
Private hospitals	56,805	324	95	1,024	10.8	23.9
Total	104,181	596	210	1,551	7.4	12.6

Table 8: Summary measures for admissions for cardiac catheterisation by hospital sector, 2010–11

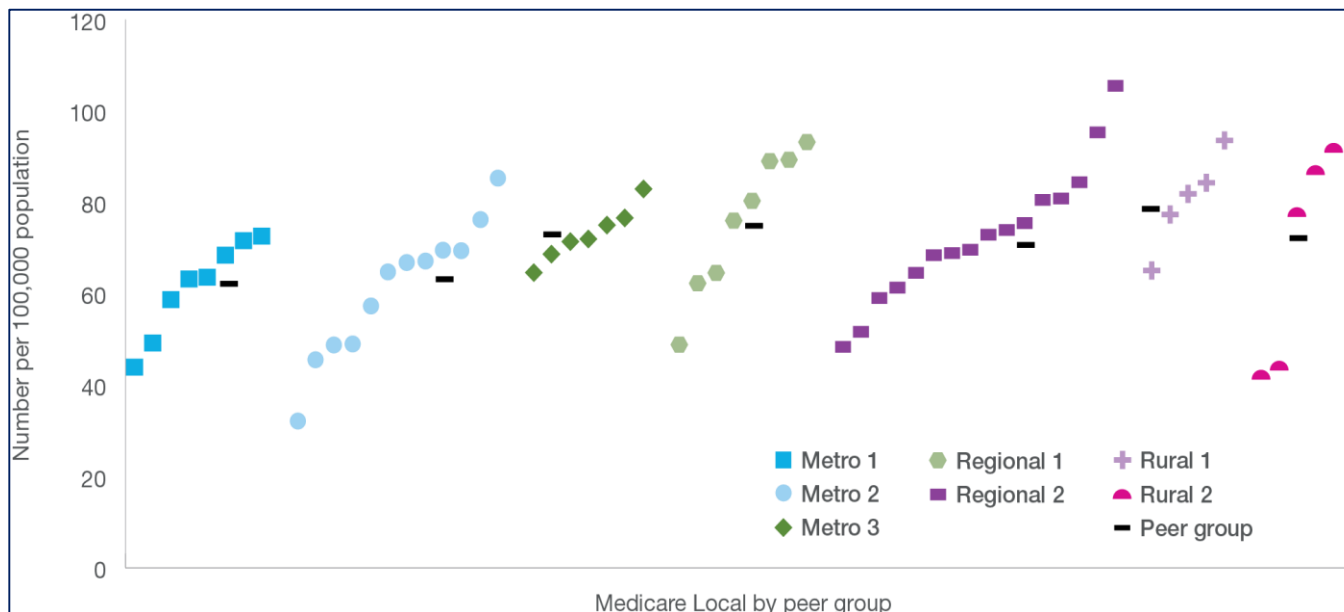
PCI



Coronary angioplasty and stenting	Total admissions	Age and sex standardised rate (ASR)	Lowest ASR ^a	Highest ASR ^a	Fold difference	SCV
Public hospitals	20,853	120	71	190	2.7	5.1
Private hospitals	16,581	94	26	219	8.4	18.8
Total	37,434	214	135	393	2.9	4.6

Table 9 Summary measures for admissions for PCI by hospital sector, 2010–11

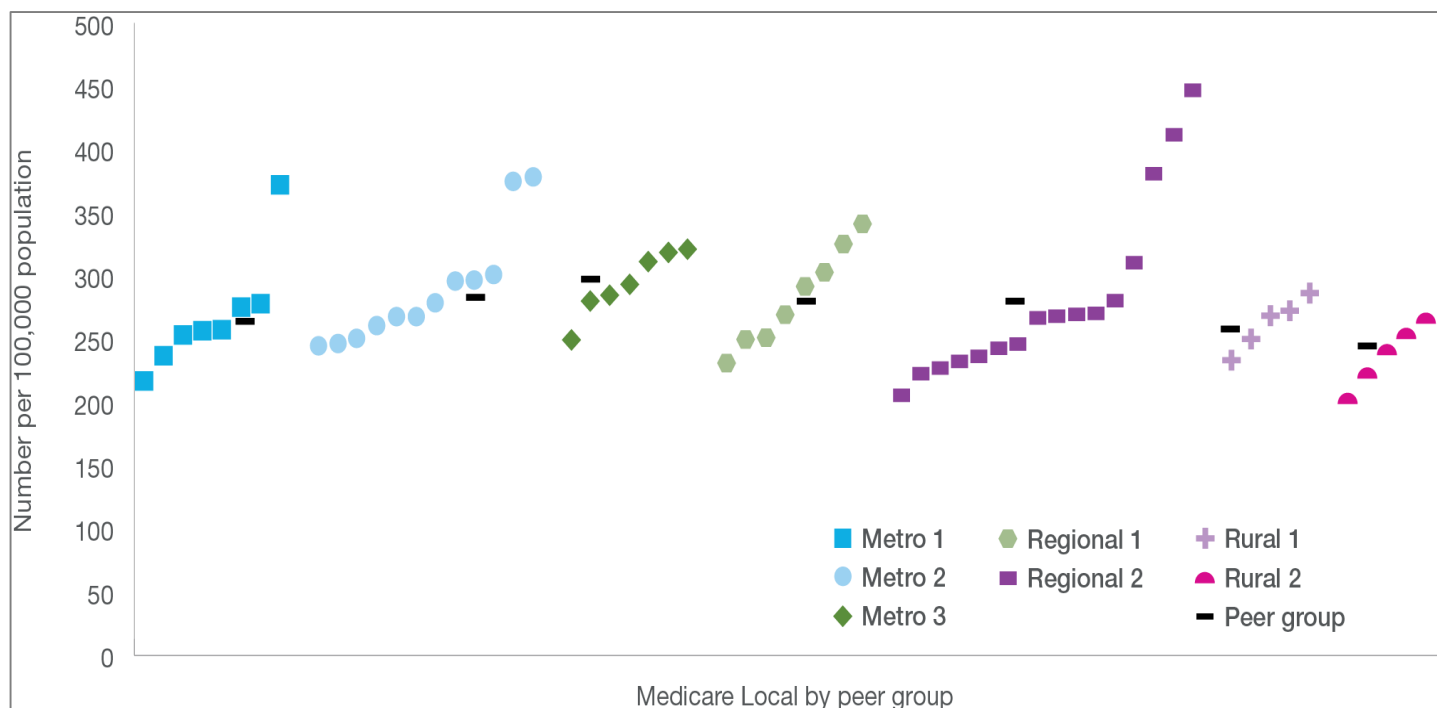
Coronary Artery Bypass Grafting



Coronary artery bypass grafting	Total admissions	Age and sex standardised rate (ASR)	Lowest ASR ^a	Highest ASR ^a	Fold difference	SCV
Public hospitals	7,125	41	12	85	7.1	10.9
Private hospitals	5,023	28	3	51	17.0	12.6
Total	12,148	69	32	105	3.3	3.7

Table 10 Summary measures for admissions for coronary artery bypass grafting by hospital sector, 2010–11

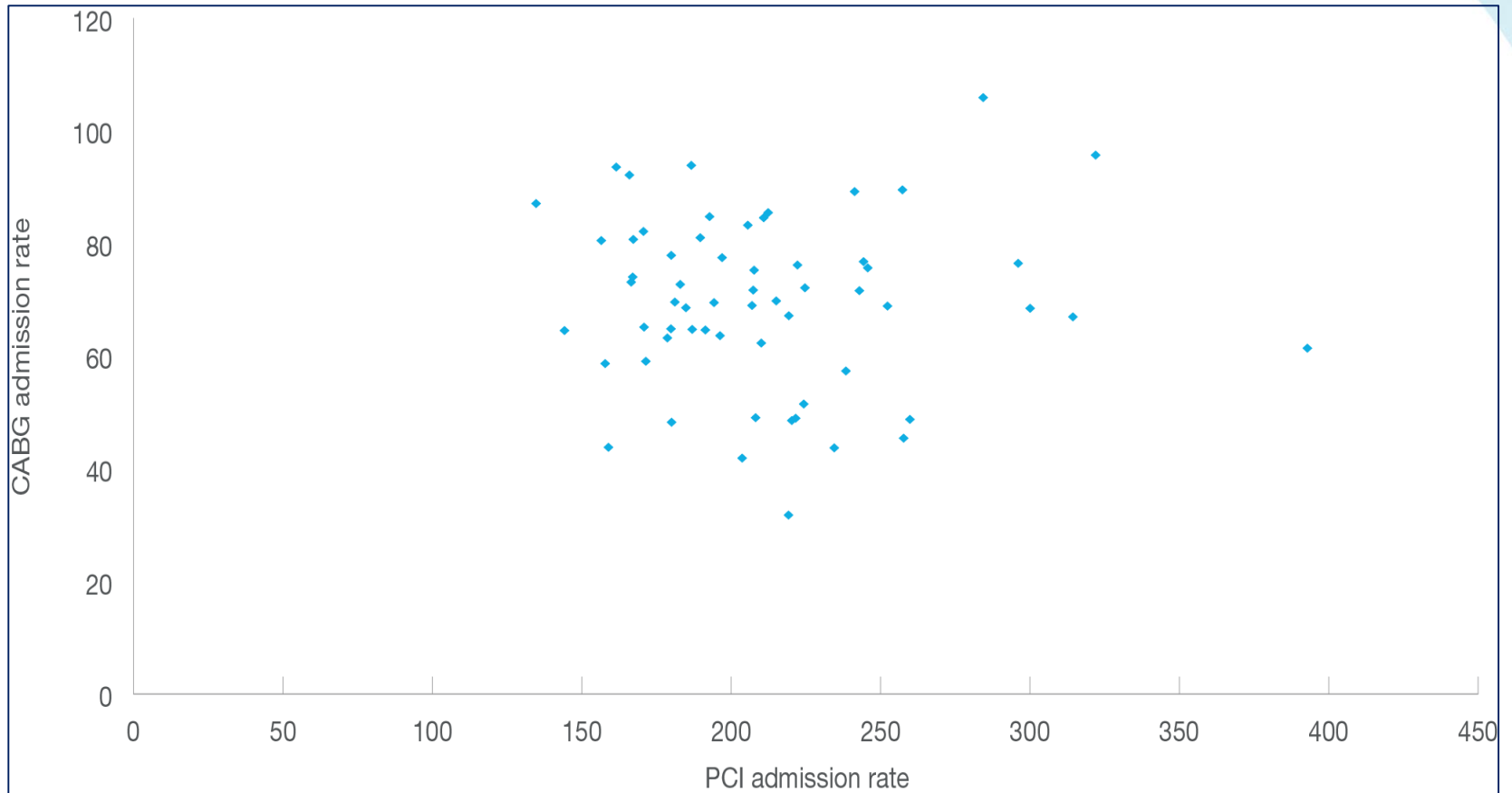
Revascularisation (CABG and/or PCI)



PCI and/or CABG	Total admissions	Age and sex standardised rate (ASR)	Lowest ASR	Highest ASR	Fold difference	SCV
Public hospitals	27,835	159	89	240	2.7	4.8
Private hospitals	21,516	121	33	242	7.3	14.1
Total	49,351	280	203	447	2.2	2.8

Table 11 Summary measures for admissions coronary artery bypass grafting and/or coronary angioplasty and stenting by hospital sector, 2010–11

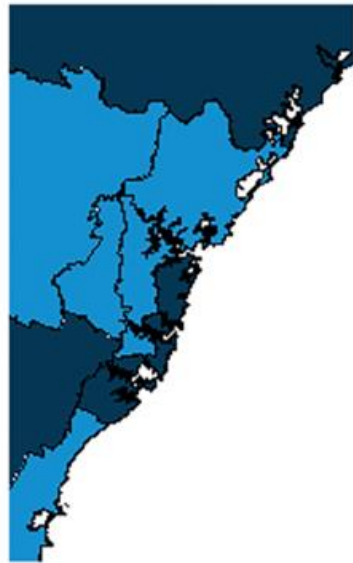
PCI vs CABG



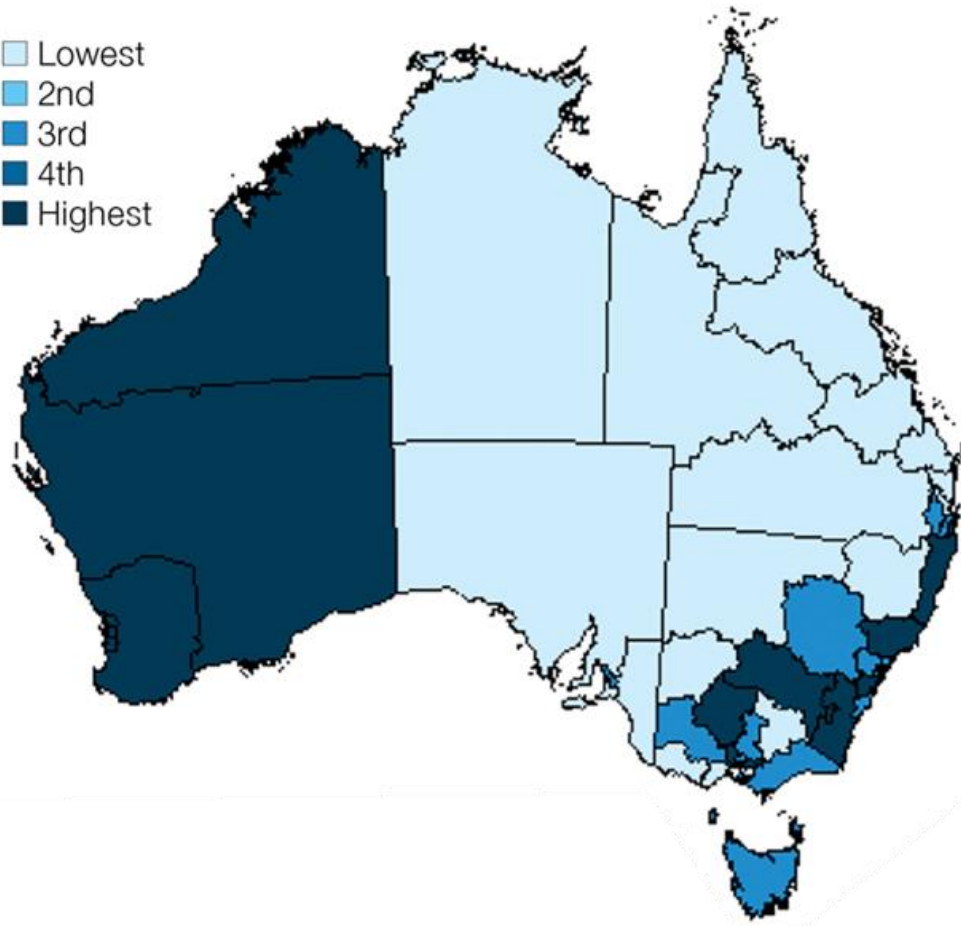
Ratio PCI to CABG

Australia and Greater Sydney

Greater Sydney



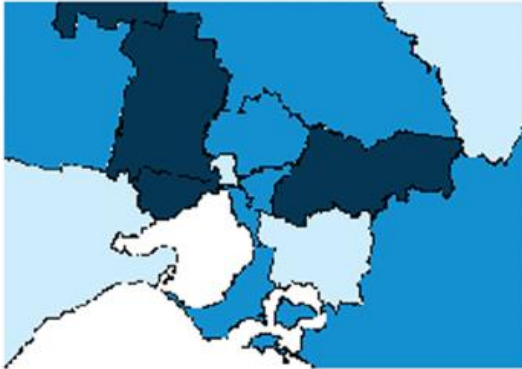
- Lowest
- 2nd
- 3rd
- 4th
- Highest



Ratio PCI to CABG

other Australian capital cities

Greater Melbourne



Greater Adelaide



Greater Brisbane



Greater Perth



Australia Capital Territory



What now?

Australian Atlas of Healthcare Variation (2015)

Topic areas

1. Antimicrobial prescribing
2. Chronic diseases
3. Mental health & cognitive impairment
4. Care of the elderly
5. Paediatric care
6. End of life care
7. Surgical interventions
8. Pathology and diagnostic testing

Australian Atlas

Phase 1

Present variation in broad range of topics and items
'diagnostic tool'

Phase 2

Explore topics of high variation for:

- a. Unwarranted variation
- b. Mechanisms to improve appropriateness

❖ In partnership with jurisdictions and health services

Complementary programs

- **Patient engagement**
 - Shared Decision Making
 - Risk communication
 - Health Literacy
- **Clinical Care Standards**
 - Antimicrobial resistance
 - Stroke
 - ACS
 - *Hip #*
 - *Knee surgery*
- **Registries (outcomes of care)**
- **Pricing for quality (best practice pathways)**

Thank you

www.safetyandquality.gov.au

@ACSQHC

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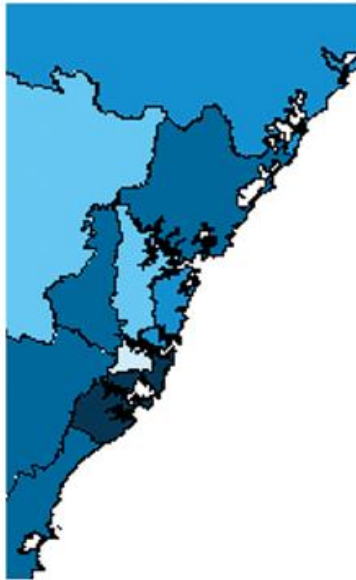
@lukeslawomirski



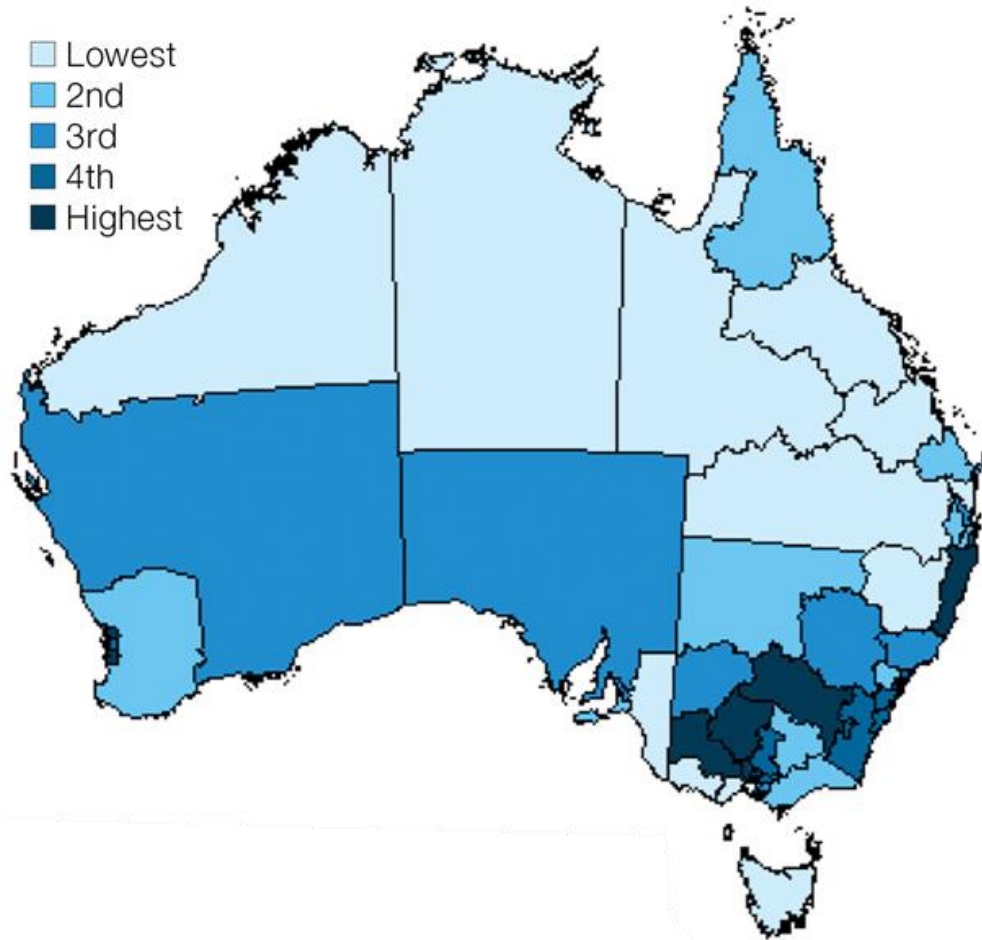
PCI

Australia and Greater Sydney

Greater Sydney



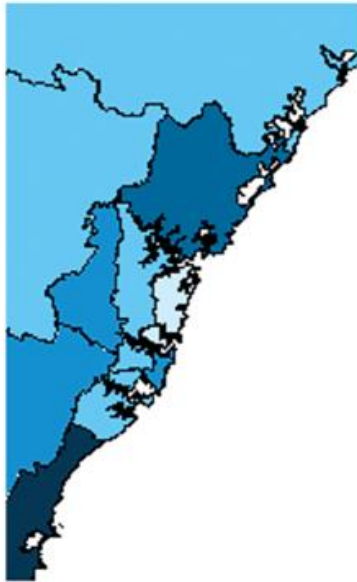
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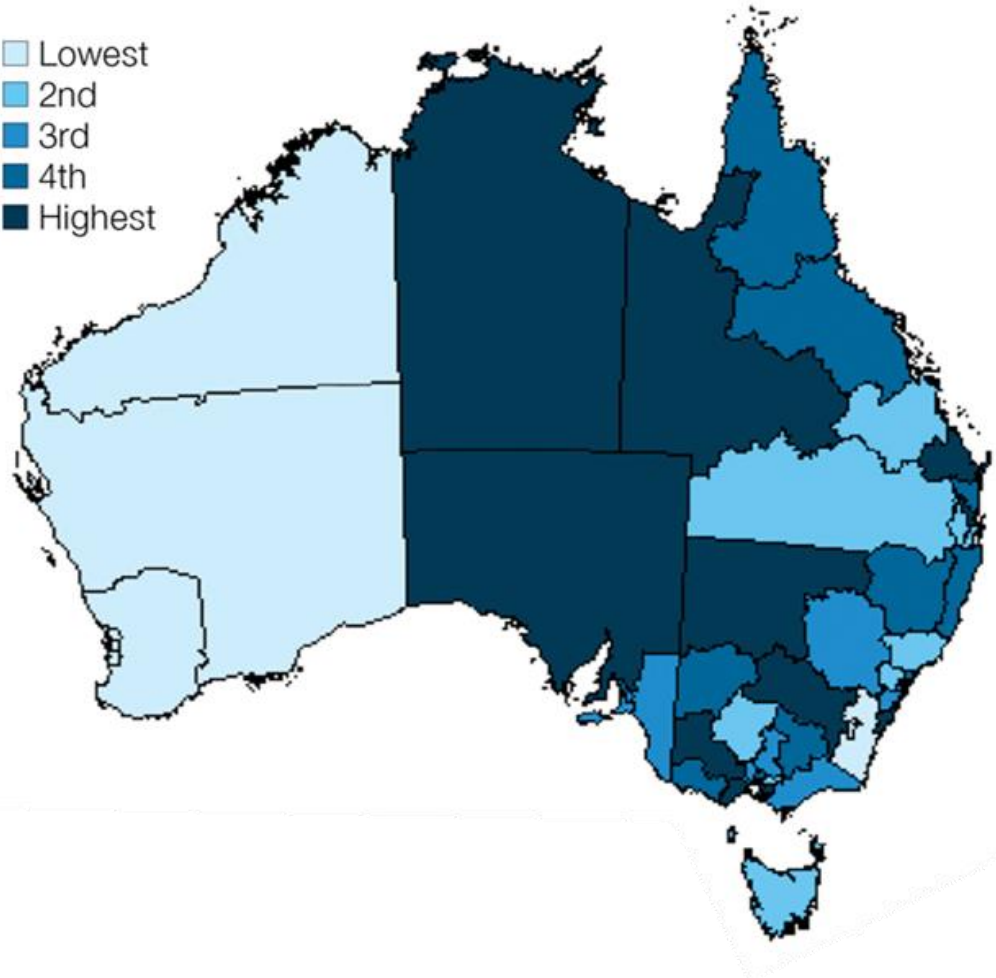
CABG

Australia and Greater Sydney

Greater Sydney



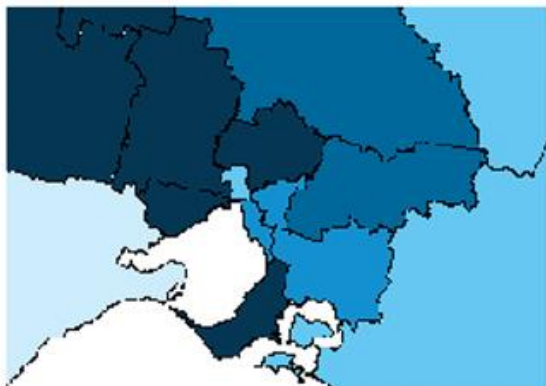
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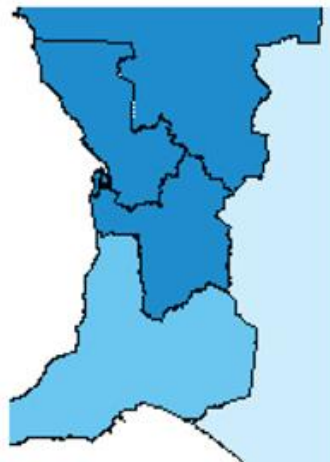
PCI

Other Australian capital cities

Greater Melbourne



Greater Adelaide



Greater Brisbane



Greater Perth



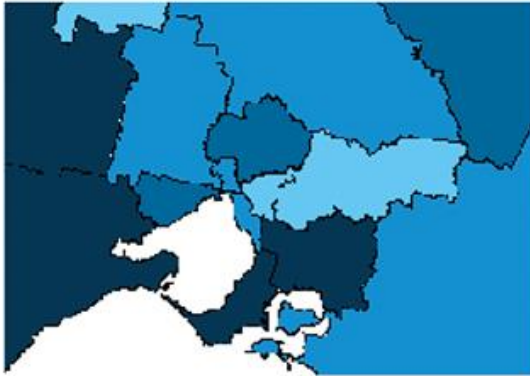
Australia Capital Territory



CABG

Other Australian capital cities

Greater Melbourne



Greater Adelaide



Greater Brisbane



Greater Perth

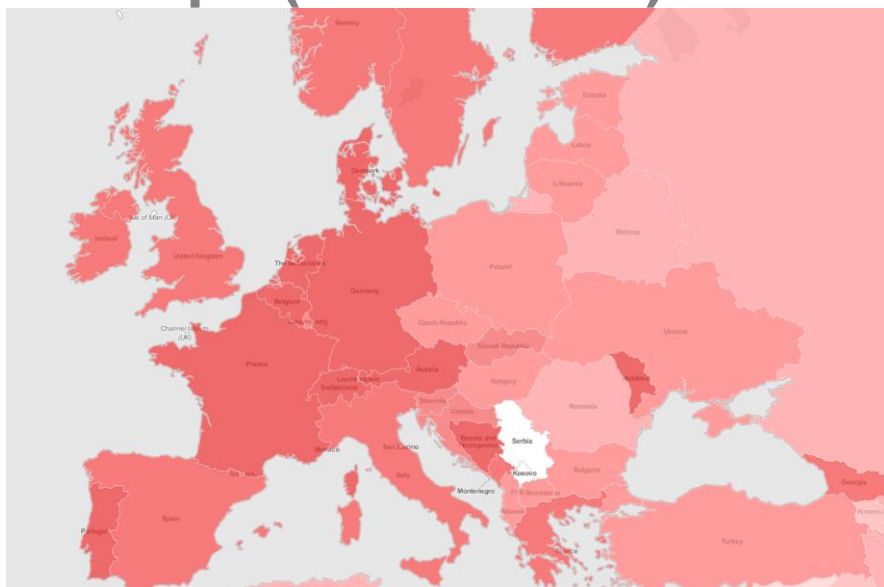


Australia Capital Territory



Health expenditure, total (% of GDP)

Europe (9.4% - 2012)



(Australia 9.1% - 2012)

