

# Introduction to the Australian Atlas of Healthcare Variation Series

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# Misconceptions & surprise

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**Australia has one of the highest rates of hysterectomies in the OECD...**




**...the advice from clinical experts was that high rates were due to the 'tyranny of distance'—women in rural and remote areas wanted the definitive treatment of removing the uterus rather than risk having to travel long distances...**





**To my surprise and the surprise  
of the experts we had  
consulted...**

**...most of the highest rates  
of hysterectomy were not  
in inner regional areas of Victoria.**

An aerial photograph of a residential neighborhood, showing a grid of streets, houses with various roof colors (red, brown, grey), and green trees. The image is oriented vertically, with the top of the page at the bottom of the image.

**Without an Atlas, efforts to increase access to effective low-risk treatments would have been wrongly targeted.**

**The women in greatest need in these regional areas would not have been informed of more appropriate, less invasive treatment options.**

MISCONCEPTIONS & SURPRISE

# Atlas findings can be surprising

differences

differences

differences

differences

differences

MISCONCEPTIONS & SURPRISE

# Atlas findings can be surprising

differences

differences

differences

differences

differences

across regions



# Atlas findings can be surprising

differences

differences

differences

differences

differences

across regions

by socio-  
economic  
status

# Atlas findings can be surprising

differences

across regions

differences

by socio-economic status

differences

by Aboriginal and Torres Strait Islander heritage

differences

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# Atlas findings can be surprising

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by gender

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# Atlas findings can be surprising

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across regions

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by socio-economic status

differences

by Aboriginal and Torres Strait Islander heritage

differences

by gender

differences

by funding status

# The findings surprise me

differences

across regions

differences

by socio-economic status

differences

by Aboriginal and Torres Strait Islander heritage

differences

by gender

differences

by funding status

...and how far we are from consistently providing appropriate care

# What do we stand to gain?

- ✓ More people consistently receiving appropriate care
- ✓ Fewer people unnecessarily harmed
- ✓ A more efficient and effective system that benefits us all

# Atlases of Healthcare Variation

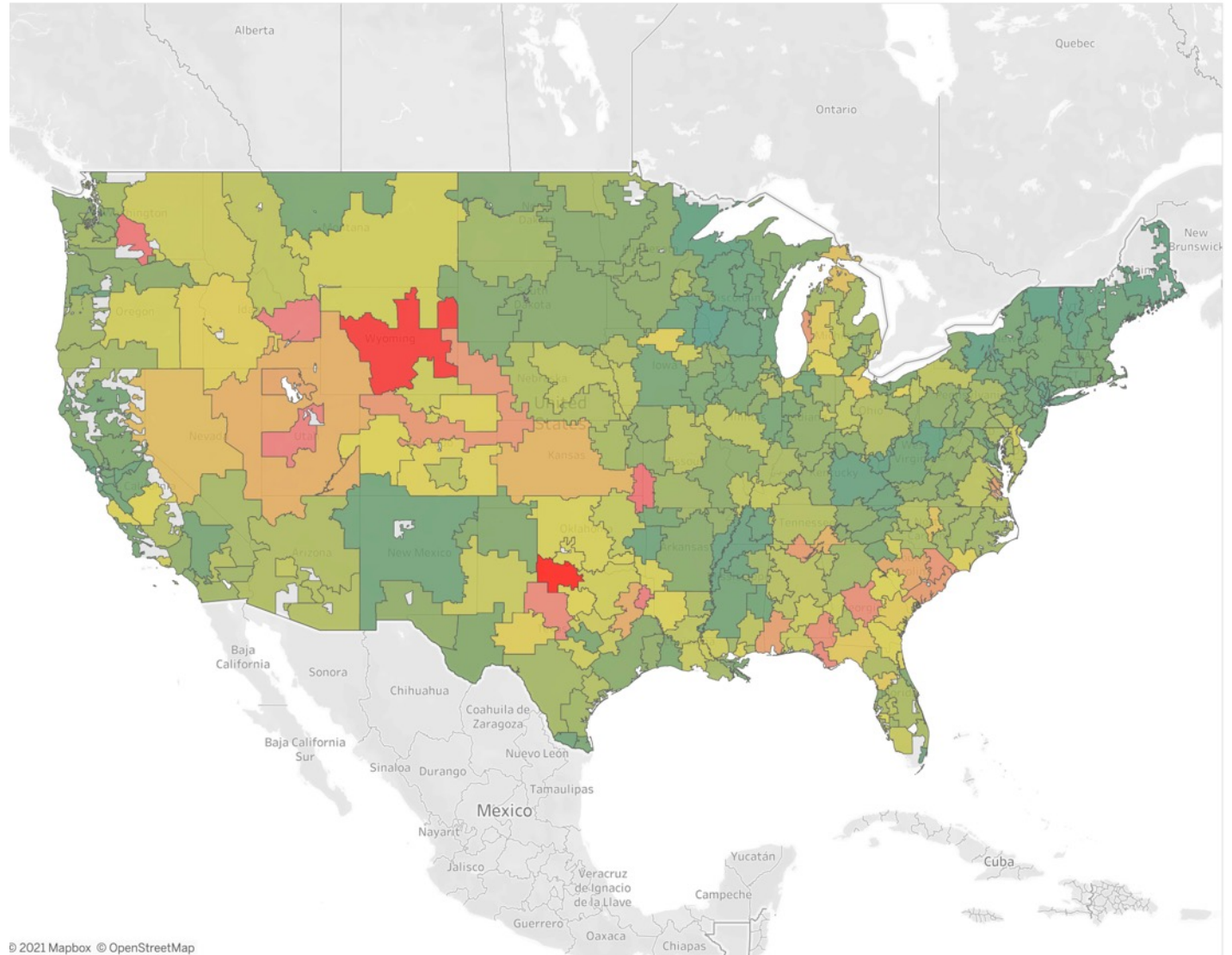
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ATLASES

# Dartmouth Atlas

Map: Inpatient Back Surgery per 1,000 Medicare Enrollees, by HRR (2015)



© 2021 Mapbox © OpenStreetMap

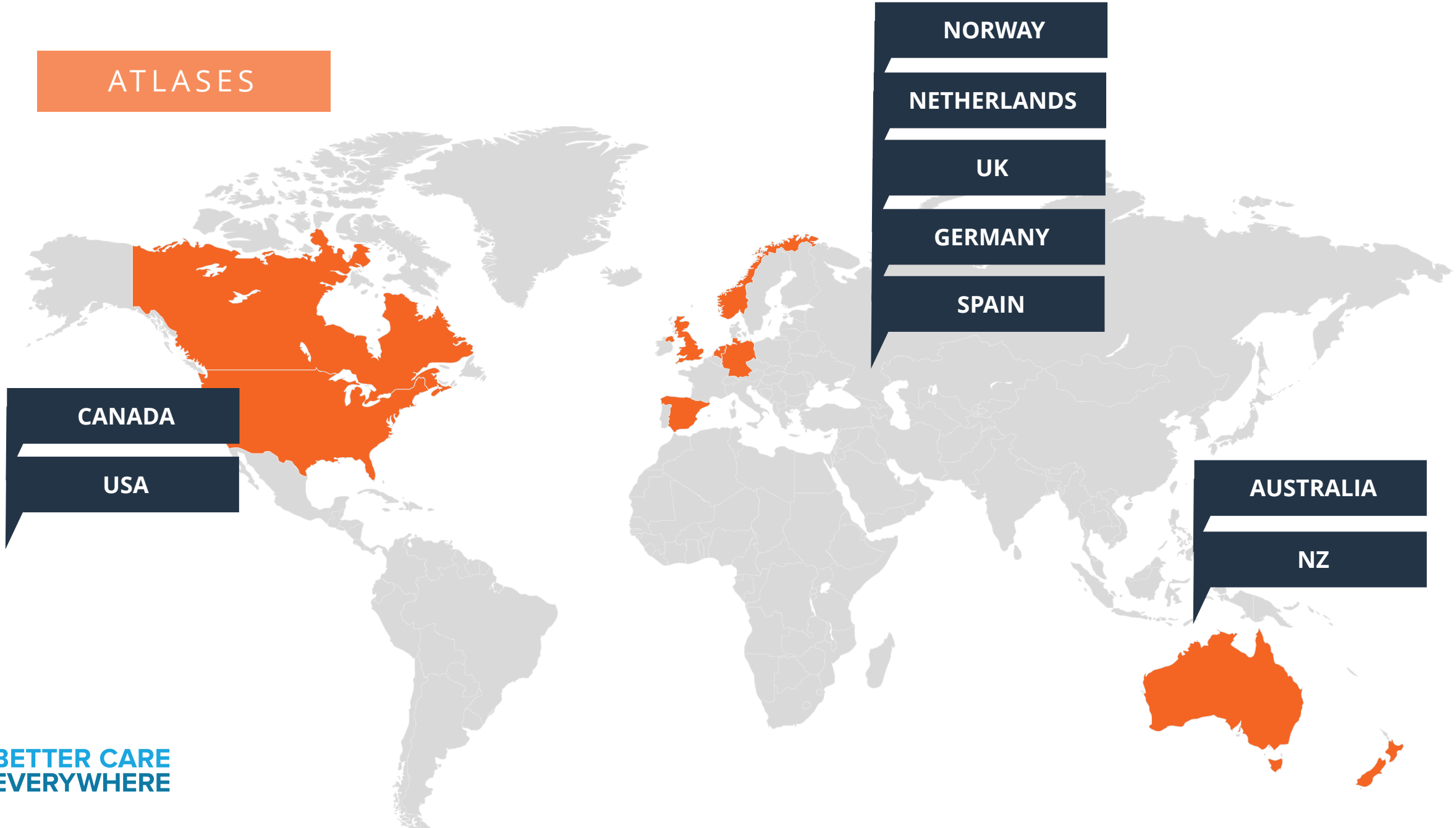
Adjusted Rate (per 1,000 Medicare Enrollees)

1.880

9.928



ATLASES



CANADA

USA

NORWAY

NETHERLANDS

UK

GERMANY

SPAIN

AUSTRALIA

NZ

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ATLASES

# Australian Atlas

Mapping the use of:

- ✓ Medications
- ✓ Healthcare interventions
- ✓ Surgical procedures



ATLASES

# Australian Atlas

- Mapped by place of residence
- 300 geographical areas called SA3s
- Results standardised to account for age and gender



ATLASES

# Australian Atlas

Categorising areas by:

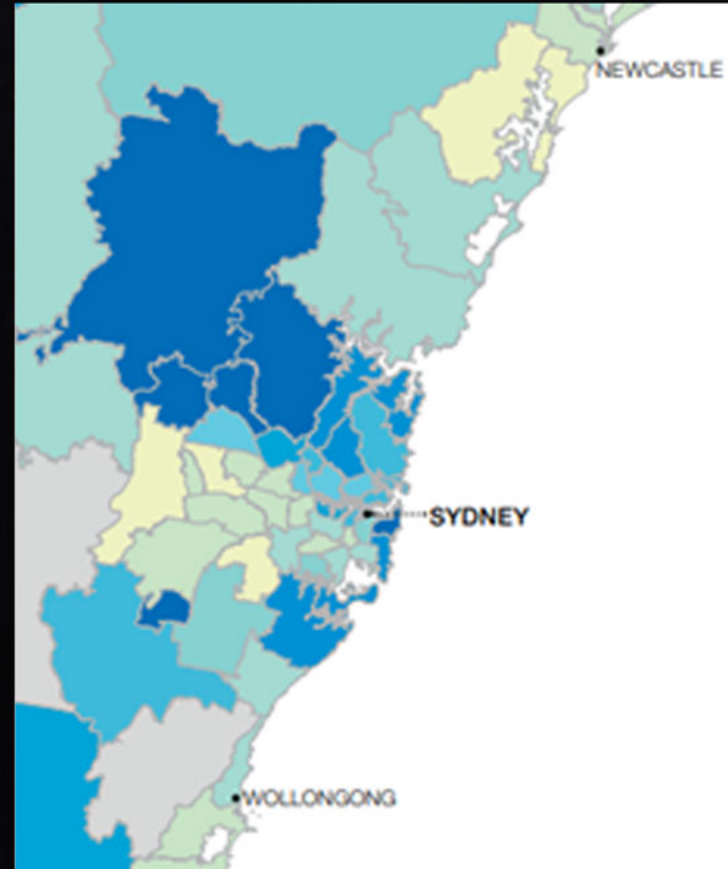
- ✓ Metropolitan
- ✓ Regional
- ✓ Remote
- ✓ Socio-economic status



ATLASES

# Australian Atlas

- Administrative data
  - MBS
  - PBS
  - perinatal data set
  - patient admission data
- ✓ Insurance status
- ✓ Aboriginal and Torres Strait Islander heritage



# Surprising & concerning findings

12x

variation in hospitalisations for diabetic complications across Australia

30x

variation for MBS-funded colonoscopy

75x

variation in dispensing of prescriptions of medications for ADHD



ATLASES

# Using Atlas data

explore  
data

strengthen  
hypotheses

refine  
actions

ATLASES

# Using Atlas data



explore  
data

strengthen  
hypotheses

refine  
actions

- socioeconomic status
- remoteness, indigenous status
- insurance status



ATLASES

# Using Atlas data

explore  
data

strengthen  
hypotheses

refine  
actions

- evidence practice gap
- indication creep
- workforce under-supply or over-supply

ATLASES

# Using Atlas data

explore  
data

strengthen  
hypotheses

refine  
actions

Enables us to refine  
actions to help reduce the  
unwarranted variation

# Drivers of unwarranted healthcare variation

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# Evidence practice gap

## DATA

**High rates of hysterectomy in regional areas (v metropolitan and remote).**

- What information are consumers receiving?
- Do women in regional areas receive appropriate access to all relevant treatment options, including the latest uterine sparing treatment endometrial ablation?

## DATA

**21x variation in endometrial ablation rates across the country.**

- What is the availability of endometrial ablation and all other treatment options when women need it?

# Indication creep

## DATA

**In 2012-13 there were over 38,575 admissions for tonsillectomy in Australia. The rate was over 7x higher in the area with the highest rate, compared with the area with the lowest rate.**

- We know there has been a decline in tonsillectomy FOR TONSILLITIS in a number of countries but there has also been a rise in tonsillectomy for obstructive sleep apnoea.
- So the important questions are:
  - What is the evidence base for this?
  - How good are the data?
  - Have there been studies comparing surgery with watchful waiting?

# Workforce over/under supply

## DATA

Metropolitan areas have markedly higher rates of colonoscopies than regional and remote areas.

The highest socioeconomic groups have higher rates than other groups.

- Can this be explained by supplier-driven demand?

## DATA

12x higher rates of hospitalisation for diabetic complications in remote areas.

- Is there a lack of service providers?
- Do we have the right mix of providers: diabetic educators, dietitians, podiatrists, optometrists?

# How the Atlas series drives change

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# Clinical care standards

- The Commission with clinicians, consumers and health system managers has developed clinical care standards for a number of conditions.
- Includes heavy menstrual bleeding, osteoarthritis of the knee, hip fracture, cataracts, and the use of colonoscopy.
- These standards are now widely available and used. They are on our website: [safetyandquality.gov.au/standards/clinical-care-standards](https://safetyandquality.gov.au/standards/clinical-care-standards)



DRIVING CHANGE

# Medicare Benefits Schedule (MBS)

- Data from the Atlases informed the Medicare Benefits Schedule (MBS) Review.
- This influenced a number of changes to improve the appropriateness of use, including for colonoscopy, arthroscopy and for back surgery.

# National Standards

- The Atlas series led to recognition of the need for all health services to look for unwarranted variation in the services they provide and make the appropriate changes to reduce it.
- The National Safety and Quality Health Service Standards now require all health services to provide clinicians with their data.
- The Commission has developed the NSQHS Standards User Guide for reviewing clinical variation to assist clinicians and health services to reduce unwarranted variation:  
[safetyandquality.gov.au/publications-and-resources/resource-library/nsqhs-standards-user-guide-review-clinical-variation-health-care](https://www.safetyandquality.gov.au/publications-and-resources/resource-library/nsqhs-standards-user-guide-review-clinical-variation-health-care)

# Workforce data & workforce strategy

- Atlas findings demonstrate the need for national workforce data and a national workforce strategy to ensure appropriate work force distribution.
- The findings are informing this work and also highlighting the need for professional societies to focus on this issue.

# **Case study: hysterectomy**

CASE STUDY

# 1 IDENTIFY

## Case study: hysterectomy

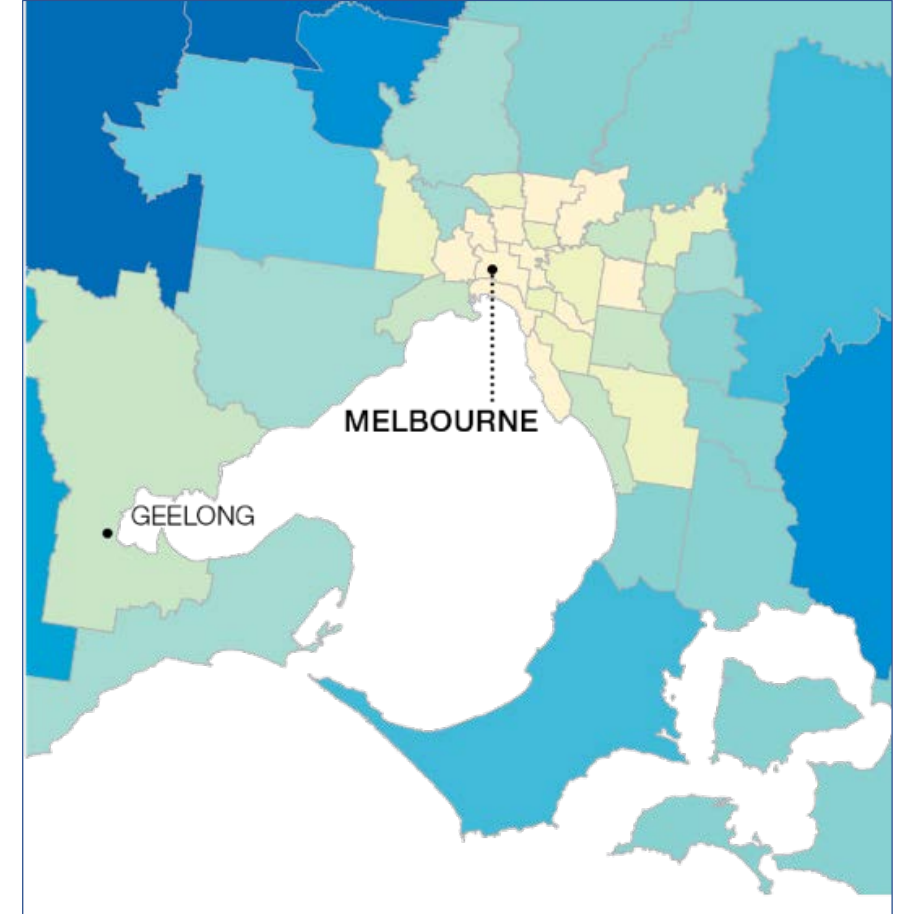
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## CASE STUDY

# 2 INVESTIGATE

- 7-fold difference between the highest and lowest rates of hysterectomy across Australia
- Rates higher in regional areas, for example:
  - in Victoria the age-standardised rate for women in Ballarat was 744/100,000 compared with the rate in Melbourne City of 119/100,000
- **Is this because of patient education and awareness of treatment options? Or is it due to clinicians' preferences?**



Six of the top 10 highest rate areas in Australia were in Victoria

## CASE STUDY

# 3 ADDRESS

- Local health services, DHHS and Safer Care Victoria drilled down into the Atlas data and determined that the high rates of hysterectomy in certain parts of Victoria were unwarranted.
- A clinical working group examined the high rates of hysterectomy.
- Collaborated to promote the Commissions' **Heavy Menstrual Bleeding Clinical Care Standard** and the local Primary Health Network's health pathway for managing heavy menstrual bleeding.
- Reoriented care, for example:
  - **Well Women's Clinic** designed to offer choices in primary care as a circuit breaker for women who might otherwise have been on a trajectory straight to surgery.



CASE STUDY

3

ADDRESS

rate of hysterectomy

**REDUCED**



281 per 100,000  
(2014-15)



236 per 100,000  
(2018-19)



# What next?

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## WHAT NEXT

explore  
data

strengthen  
hypotheses

refine  
actions

**Atlases should raise hypotheses, stimulate discussion and prompt searching for unwarranted variation.**

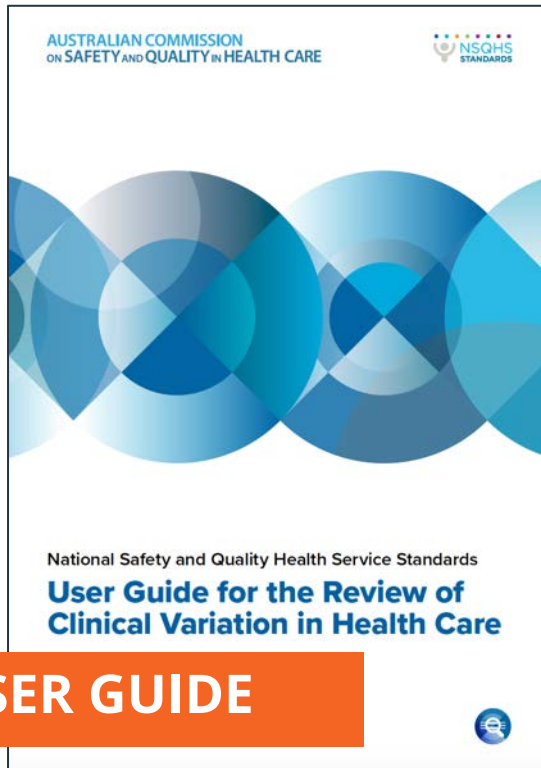


# How to contribute to improvement

- ✓ Look at variation in your own practice, or your group's practice
- ✓ Benchmark yourselves against best practice
- ✓ Implement changes that promote appropriate care, and disincentives for inappropriate care options

WHAT NEXT

# Resources and case studies



# Up next

- Q&A with Anne Duggan and Debora Picone AO



AUSTRALIAN  
COMMISSION  
ON SAFETY AND  
QUALITY IN  
HEALTH CARE

[bettercareeverywhere.gov.au](http://bettercareeverywhere.gov.au)

