



AUSTRALIAN ATLAS OF HEALTHCARE VARIATION

FREQUENTLY ASKED QUESTIONS

GENERAL QUESTIONS ABOUT THE ATLAS

Q: What is the Australian Atlas of Healthcare Variation?

The Australian Atlas of Healthcare Variation presents a clear picture of substantial variation in health care use across Australia, across areas such as antibiotic prescribing, surgical, mental health and diagnostic services. This is the first Australian Atlas where health care variation across the country has been described alongside national recommendations for action.

Q: What is healthcare variation?

Modern medicine is characterised by an increasing expectations that people will receive care that is evidenced based. Despite this expectation, health care services vary across individuals and populations.

Some variation in health care is warranted and desirable. It reflects differences in people's need for health care. Understanding the reasons behind the variation is critical to improving the quality and value of health care. Where variation is 'unwarranted' it signals that some people are missing out on health care that could have helped them while others are having interventions that are unlikely to be of benefit.

The weight of evidence in Australia suggested that much of the variation documented in the atlas is likely to be unwarranted.

Q: What is unwarranted variation?

Some variation in healthcare is expected – it reflects differences in people's need for health care, underlying differences in the health of specific populations, or personal preferences.

Where variation is 'unwarranted' – or not in keeping with what's best for that person's health care need or their preference – it signals that some people are missing out on health care that could have helped them while others are having interventions that are unlikely to be of benefit. We know that overuse of some interventions may cause harm.

Unwarranted variation may reflect differences in clinicians' practices, in the organisation of health care, and in people's access to services. It may also reflect provision of care that is not in accordance with evidence-based practice.

The weight of evidence in Australia and internationally suggests that much of the variation documented in the atlas is likely to be unwarranted. The challenge is to improve the appropriateness of care.

Q: What are the key findings?

The atlas has documented:

- Very high overall rates of inappropriate antibiotic prescribing
- Very high rates of colonoscopy with very large variation across the country – the area with the highest rate was 30 times higher than that of the area with the lowest rate
- High rates of computed tomography scans performed on the lumbar spine
- Rates of knee arthroscopy in people aged 55 and over were seven times higher in some areas than others. More than 33,000 operations were performed in Australia.



- Women living in regional Australia were up to five times more likely to undergo a hysterectomy or endometrial ablation for abnormal uterine bleeding than those living in cities.
- Patients in some areas of Australia were seven times more likely to undergo MBS-funded cataract surgery than those living in some other areas with more than 160,000 operations recorded.
- There were nearly 14 million prescriptions dispensed through the MBS for opioid medicines with the number of prescriptions 10 times higher in the area with the highest rate compared to the area with the lowest rate.
- A very high rate of variation seen in prescribing psycho tropic medicines for children 17 years and under. The number of prescriptions dispensed for attention deficit hyperactivity disorder was 500,000 with the highest rate 75 times higher than in the area with the lowest rate.
- More than 900,000 prescriptions for antipsychotic medicines were dispensed for people aged 65 and over with the number of prescriptions seven times higher in some areas than others.
- Australia is second only to Iceland in the use of antidepressant medicine for OECD countries. Nearly 15 million PBS-funded prescriptions for antidepressant medicines were dispensed

Q: Who is the target audience for the atlas?

The primary audience for this atlas is clinicians, health service planners, policy makers and consumers. It will prompt them to further investigate their local findings and the reasons for them.

The atlas has identified opportunities for improving the health care Australians receive. Importantly, it identifies a number of geographic and service delivery areas where marked variation is occurring. The atlas will be a catalyst for generating action, with the ultimate aim of improving the effectiveness and value of the healthcare system.

Q: How was the atlas developed and who had input?

The Commission has led the development of the atlas together with the Australian, state and territory governments in consultation with consumers, clinicians and their professional organisations. The project had oversight and clinical advice from a clinical and consumer advisory group and a state and territory advisory group that ensured wide-ranging input into its development. A number of specialist colleges relevant to the clinical issues were consulted for advice. The National Health Performance Authority analysed the data and produced the maps and graphs. More than 100 clinicians, epidemiologists and pharmaceutical experts have provided commentary on the data.

Q: What does the atlas tell us about inequity in health?

The relationship between socioeconomic disadvantage and illness is reflected in the findings of many of the analyses. In disadvantaged areas, people tend to have poorer health and thus a greater need for health care but may also have less access to healthcare services which can compound the existing disadvantage. At the same time, the findings also show that some interventions are used more in areas of higher socioeconomic status, or are mainly provided in private settings.



Q: What does the atlas say about the health of Aboriginal and Torres Strait Islander people?

The atlas has identified opportunities for improving the health care that all Australians receive. In addition to the overarching theme of inequity identified by the atlas, there are specific issues raised about the health of Aboriginal and Torres Strait Islander people.

Unwarranted variation is unacceptable. The findings in the atlas add to the weight of evidence that there is a need to address the determinants of health for Aboriginal and Torres Strait Islander peoples and resulting health inequality.

Q: Will the atlas be used to reduce or ration health services?

The atlas is not intended as a tool to reduce or ration health services. Examining variation is the first step to improve people's care and outcomes through improving the effectiveness of the healthcare system.

Q: What happens next?

Coordinated action to reduce unwarranted variation is needed from the clinical level to state and national levels. It will require cooperation between clinical groups, health services, government and consumers. The Commission will provide leadership on a number of national initiatives.

The atlas will start the process of local health networks examining their findings and determining local approaches to addressing unwarranted variation. It will inform the newly established primary health networks as they develop their work plans and commission services based on their local health needs assessments. And it will help drive development of resources for patients and consumers so that they can make good decisions about their own health care, in particular understanding the risks and benefits.

Q: How were the recommendations in the atlas developed?

The recommendations in the atlas have been developed by the Commission taking into account suggestions and views of many individuals and organisations, including two atlas advisory groups with clinical, consumer, state and territory and Australian government representatives. These Commission's recommendations aim to prompt coordinated action across the health system to investigate and reduce unwarranted variation.

Q: Will other items be investigated in the future?

The atlas is the first in a series of atlases that the Commission will produce to map variation across a range of procedures and interventions in Australia. It is expected that future atlases will explore different items, as well as re-examining some of the same items.

ABOUT THE ATLAS DATA

Q: Where did the data in the Australian Atlas of Healthcare Variation come from?

The atlas uses data sourced from three national health datasets:

1. Medicare Benefits Schedule (MBS)
2. Pharmaceutical Benefits Scheme (PBS)
3. Admitted Patient Care National Minimum Data Set (APC NMDS)

The National Health Performance Authority extracted and analysed data and produced the maps and graphs in the atlas. More than 100 clinicians, epidemiologists and pharmaceutical experts have examined and commented on the data as part of developing the atlas.



Q: How were the data items chosen?

The atlas examines 36 medical conditions, interventions and procedures identified as potential areas of unwarranted variation. The items were chosen following consultation with states and territories, the Commonwealth, colleges, consumer organisations and government agencies about priority areas and then review of the available data sources.

Q: What should I consider in interpreting the data?

For MBS and PBS items, the rates are based on where the patient lives as determined by the person's Medicare enrolment postcode. For hospital admissions, the rates are determined by the person's residential postcode as recorded at the time of hospital admission.

The geographical local areas used are the Australian Bureau of Statistics (ABS) standard geographical regions known as the Statistical Areas Level 3 (SA3) and Statistical Areas Level 4 (SA4). The atlas presents age-standardised rates per 100,000 population. Populations in different geographical areas differ in size and structure.

The data specifications for each item can be accessed on the Australian Institute of Health and Welfare's Metadata Online Registry (METeOR) at www.meteor.aihw.gov.au

Q: Are high rates or low rates better? Is the median best?

Variation in health care may be warranted or unwarranted. Some variation is expected. The atlas does not give information on the 'right' rates of variation for any of the items analysed but has benchmarked a number of treatments to international benchmarks.

Q: What are 'outliers' and what do they mean?

The graphs in the atlas include outlier data, which are the lowest and highest rates for each item. Outliers represent the extreme data rates that may be representative of unusual factors or data collection error.

State and territory health departments, local health networks, primary health networks, clinical networks, and relevant state bodies responsible for quality and safety of health care will determine the need to review high and low outliers presented in the atlas and develop local priority action plans for addressing these findings.

For example, primary health networks that are developing work plans for commissioning services can look at high and low outlier areas to consider the factors which are driving the rates and determine whether rates of intervention should be further analysed and monitored in order to improve appropriateness of care.

Q: How do I interpret the atlas?

Chapter introductions provide overviews of the items included, international comparisons, information about national activities to improve care and key recommendations.

Data for 34 of the 36 data items in the atlas are displayed as both graphs and maps to show variation in rates by geographic location of patient residence. Separate maps show the greater metropolitan areas that are not clearly visible in the larger map of Australia.

On the map for each intervention, the age-standardised rates in each of the geographic areas were ranked from lowest to highest and then split into 10 categories. These are



displayed with colour gradients, where darker colours represent higher rates and lighter colours represent lower rates.

Three graphs are provided for each item. They are:

1. Number and rates per 100,000 people, age standardised, by local area, listing the areas with the lowest number and highest rates.
2. Number and rates per 100,000 people, age standardised, with the average and the areas with the highest and lowest rates by state and territory.
3. Number and rates per 100,000 people, age standardised, by remoteness and socioeconomic status.

For each of the two hospital length-of-stay data items, three graphs show the average length of stay for patients in major and large public hospitals. The first graph shows hospitals with the shortest and longest stays; the second graph shows average length of stay and hospitals with the highest and lowest length of stay by peer group of hospital; and the third shows average length of stay and hospitals with the shortest and longest stays by state and territory.

The local area data for each data item can be accessed at <http://www.safetyandquality.gov.au/atlas>. These spreadsheets have been grouped by chapter and can be accessed on each chapter webpage. Maps outlining SA3 and SA4 areas can be accessed on the ABS web site at <http://stat.abs.gov.au/itt/r.jsp?databyregion>.

ABOUT THE COMMISSION

Q: What is the Australian Commission on Safety and Quality in Health Care?

The Australian Commission on Safety and Quality in Health Care (the Commission) is an Australian Government agency that leads and coordinates national improvements in the safety and quality of health care based on the best available evidence. By working in partnership with patients, consumers, clinicians, managers, policy makers and health care organisations, our aim is to achieve a sustainable, safe and high-quality health system. As a result of its work, the Commission has an ongoing program of significant national activity with outcomes that are demonstrating direct patient benefit as well as creating essential underpinnings for ongoing improvement. The Commission aims to use its role as the national body for safety and quality in health care in Australia to ensure that the health system is better informed, supported and organised to deliver safe and high quality care.