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Geographic variation in access to Medicare-subsidised psychotherapy¹

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Abstract

Objective: Within Australia, evidence is limited regarding how access to mental healthcare varies across geographical regions, and which areas experience the lowest levels of service use. This study aimed to provide new population-level evidence on the geographic variation in the use of Medicare-subsidised psychotherapy over the past decade and identify regions with the lowest service use.

Methods: We used administrative data from the Medicare Benefits Schedule to identify 2.7 million adults aged 25–54 years across mainland Australian states with a new Mental Health Treatment Plan (MHTP) from a general practitioner (GP) between 2014 and 2023. State-level trends were examined by calculating the proportion of individuals who accessed Medicare-subsidised psychotherapy within three months of receiving their MHTP in each state per year. We then examined variation in the use of psychotherapy across regions in 2023 (Statistical Area Level 4 (SA4)), and assessed how this psychotherapy use was associated with area-level socioeconomic disadvantage.

Results: Between 2014 and 2023, psychotherapy use among adults with a MHTP declined substantially across all states, from around 60% of adults in 2014 to below 50% in 2023. Psychotherapy use also varied markedly across sub-state regions (SA4s) in 2023, with uptake ranging from 36% in Sydney's Outer South West to 60% in Perth's Inner suburbs. Access was generally lower in non-metropolitan regions and in areas with higher socioeconomic disadvantage.

Conclusions: The results highlight the need for system supports that make psychological services more accessible, particularly in socioeconomically disadvantaged areas. Addressing access gaps will require coordinated efforts across general practice, service delivery, and policy settings. Prioritising support and policies towards regions with the poorest access can assist with designing a more equitable mental health system.

¹ Funding from the Australian Research Council (DP200102295) is gratefully acknowledged. This paper uses data from the Australian Bureau of Statistics (ABS) Person Level Integrated Data Asset (PLIDA) Basic Longitudinal Extract, (2011 Cohort). The findings and views reported in this paper, however, are those of the authors and should not be attributed to the Australian Government, or the ABS. We would like to thank the ABS Microdata Team for their vetting, assistance and support throughout this project. This study was approved by the Monash University Human Research Ethics Committee, (Project number 30869).

Conflict of interest: The authors declare that they have no conflicts of interest.

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1.0 Introduction

Mental disorders affect one in five Australians each year,¹ and improving access to mental healthcare is a key focus of national policy. Medicare-subsidised psychological therapy delivered under the Better Access initiative is the main pathway through which Australians receive mental health care.² However, a substantial proportion of patients do not proceed to use any psychological services even after their general practitioner (GP) initiates a Mental Health Treatment Plan (MHTP).² This gap in service use is especially pronounced among socioeconomically disadvantaged groups.³

While socioeconomic differences in access to mental healthcare are well documented,^{3,4} much less is known about how access varies geographically and which regions experience the lowest levels of service use. There are several reasons to expect substantial regional variation in the use of psychological services. On the supply side, the price of care and the availability of mental health providers differ markedly across areas.⁵ Limited availability can lead to longer wait times, higher travel costs, and time away from work, all of which may disproportionately affect low-income patients. On the demand side, individual's ability and willingness to pay for services can vary due to cultural norms, stigma surrounding mental health treatment and differences in health literacy.⁶

Understanding how access differs across regions, and whether these gaps are widening or narrowing, is essential for evaluating the equity and effectiveness of Better Access. Identifying areas where patients continue to face barriers to care can inform targeted policy responses aimed at improving mental health service delivery.

This study aimed to provide new population-level evidence on the geographic variation in the use of Medicare-subsidised psychotherapy over the past decade and identify regions with the lowest service use. The objectives were to:

- (1) Examine differences in psychotherapy use across Australian states over the past decade, following a GP-initiated MHTP.
- (2) Assess local area variation within and across metropolitan and non-metropolitan regions and explore the relationship between local area socioeconomic disadvantage and psychotherapy uptake.

2.0 Methods

2.1 Australia's mental healthcare system

Medicare-subsidised psychological therapy delivered through the Better Access initiative (BAI) is a cornerstone of Australia's mental healthcare system.² Psychotherapy, also known as psychological therapy or talk therapy is an effective treatment for reducing the symptoms of depression and anxiety.⁷ Access to psychotherapy under BAI begins with a GP assessment. Where clinically appropriate, the GP prepares a MHTP, which outlines a structured approach to managing the patient's mental healthcare needs. The presence of a MHTP therefore indicates a GP-diagnosed mental health condition. A MHTP is required for a patient to access subsidised psychotherapy and entitles patients to up to 10 individual and 10 group sessions per calendar year with eligible psychologists, occupational therapists, or social workers. These services can be delivered either face-to-face or via telehealth.

Despite Australia's universal healthcare system and the availability of subsidised psychological therapy since 2006, affordability remains a barrier to mental healthcare. Many providers charge fees above the Medicare rebate, leaving patients to pay substantial out-of-pocket costs.⁵ These costs, combined with long wait times in some regions, and uneven provider distribution, contribute to inequities in access to psychotherapy.²

2.2 Data source and study population

We used whole-of-population administrative data from the Medicare Benefits Schedule (MBS) available through the Person-Level Integrated Data Asset (PLIDA), which is administered by the Australian Bureau of Statistics (ABS).⁸ The MBS records all medical services eligible for Medicare rebates, including information on the type of service provided, item numbers, the date of service, and the individual's residential postcode. The data is available from 2011 onwards.

The study population comprised adults aged 25–54 with a diagnosed mental health condition, measured by a record of a GP-initiated MHTP (see supplementary file for the MBS item numbers). We restricted the sample to those aged 25–54 to focus on a working-age population of adults who are likely to have completed formal education and training. This helps to improve comparability across regions and avoids confounding from age-specific service use patterns among younger and older populations, for instance youth-oriented service use within

educational institutions, or lower perceived effectiveness of psychotherapy for older adults.⁹ To focus on initial uptake of recommended psychological care, we restrict the sample to each individual's first observed GP-initiated MHTP. Because the MBS does not capture lifetime treatment histories, this should not be interpreted as a first-ever MHTP. Instead, we define a first observed MHTP as one occurring after at least three years with no prior MHTP recorded in the data. We implement this using 2011–2013 as a pre-analysis window and exclude individuals with any MHTP during this period. This restriction allows us to examine whether patients proceed to use recommended psychotherapy at the point of initiation, rather than patterns of ongoing or repeat treatment. The analysis therefore covers MHTPs initiated between 2014 and 2023.

The final sample included 2.7 million adults between 25–54 years who received their first MHTP between 2014 and 2023 across the five mainland Australian states. In our sample, 58% are female and the average age is 38 years. The higher representation of females is likely driven by both a higher prevalence of mental health conditions and greater use of healthcare services among women.¹⁰

2.3 Data variables

Our primary outcome of psychotherapy use was defined as receiving at least one Medicare-subsidised psychotherapy session within three months of the individual's first MHTP. Three months was chosen to reflect an upper bound for what is considered a reasonable waiting time for timely access to care.¹¹ The psychotherapy use included services delivered either face-to-face or via telehealth by psychologists, occupational therapists, or social workers (see supplementary file for all the item codes used in the analysis).

Individuals' postcodes were used to identify their state and Statistical Area Level 4 (SA4) of residence. These SA4 regions were then linked to the Australian Bureau of Statistics' (ABS) Index of Relative Socioeconomic Disadvantage (IRSD) based on the 2021 Census.¹² As a composite measure, IRSD summarises area-level disadvantage across multiple domains, including income, education, and employment, and was used to capture broader contextual disadvantage in access to psychotherapy. The matched SA4 regions were also used to classify remoteness, with areas categorised as metropolitan (major city) or non-metropolitan according to the ABS Australian Statistical Geography Standard (ASGS) Remoteness Structure.¹³

2.4 Statistical analysis

To examine geographic variation in psychotherapy use, we first calculated the number of adults who accessed psychotherapy within three months of receiving a MHTP in a given year, and divided this by the total number of adults with a MHTP that year. This proportion was calculated separately for each year from 2014 to 2023 and for each of the five mainland Australian states. The results are presented as percentages in a line chart, providing an overview of state-level trends in timely mental health service use and highlighting the states with the lowest levels of access.

Next, we explored local-level variation in more detail using SA4 regions. In this descriptive analysis, we focussed on 2023 and calculated the proportion of individuals who accessed psychotherapy within three months of a GP MHTP for each SA4 region in mainland Australian states. The sample included 81 SA4 regions with a corresponding IRSD score. We conducted this analysis separately for metropolitan (metro) and non-metropolitan (non-metro) SA4 regions, comprising 36 and 45 regions, respectively.

Finally, we examined the relationship between area-level disadvantage and psychotherapy uptake by linking SA4-level psychotherapy use to the IRSD. For 2023, we plotted scatterplots of IRSD scores against the proportion of adults accessing psychotherapy in each SA4 region. This provides an overview on whether regions with higher disadvantage have lower uptake of psychotherapy and whether this relationship differs between metro and non-metro regions. All analyses are conducted using Stata 18.5 (StataCorp, TX, USA).

2.5 Ethics and funding

This study was approved by the Monash University Human Research Ethics Committee, (project number 30869) and is part of a Discovery project funded by the Australian Research Council (DP200102295).

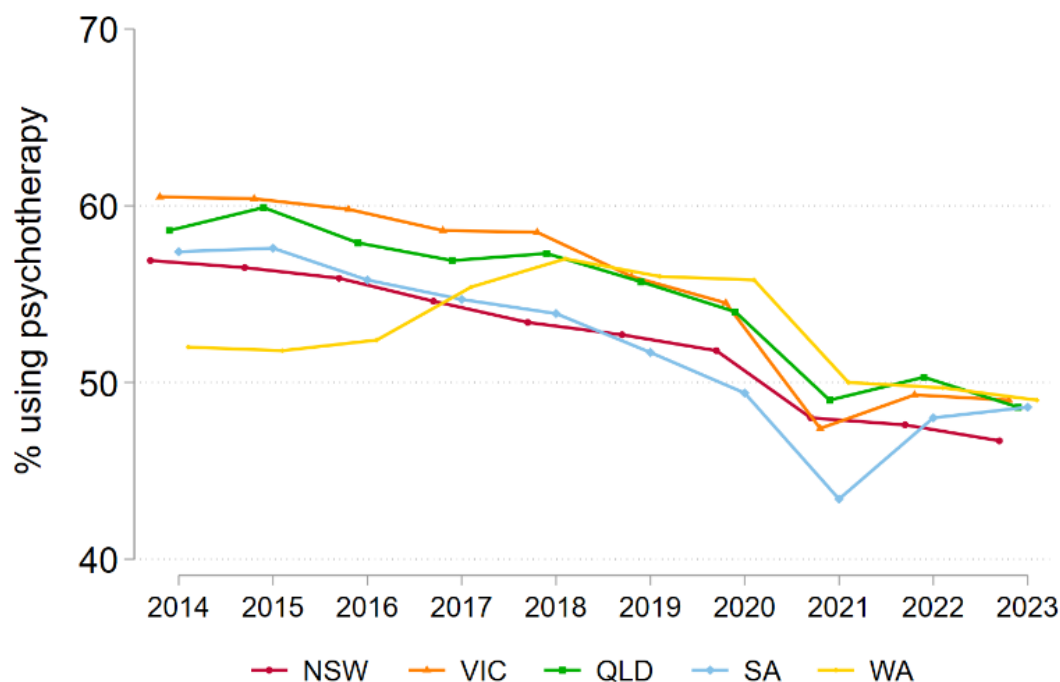
3.0 Results

3.1 State-level variation in psychotherapy use

Figure 1 presents the proportion of adults who received psychotherapy within three months of their MHTP in each state over the past decade. Across all states, this proportion declined from about 56% in 2014 to 46% in 2023.

In 2014, access was highest in Victoria (60%) and Queensland (59%) and lowest in Western Australia (52%). By 2020, just before the COVID-19 pandemic, access had gradually declined to around 50% in most states, except Western Australia, which showed a gradual increase to 56%. All states experienced declines in 2021, most sharply in South Australia (down to 43%) and Victoria (47%). By 2023, partial recovery occurred in Victoria (49%), Queensland (49%), and South Australia (49%), while New South Wales continued to decline, remaining the lowest at 47%.

Figure 1: Proportion of individuals using psychotherapy within three months of receiving a MHTP



3.2 Which regions have the lowest service uptake?

To examine within-state variation in access, we focus on 2023 data at the SA4 level. Figures 2 and 3 show substantial heterogeneity in psychotherapy use across regions, including clear differences between metropolitan and non-metropolitan areas.

Among metropolitan regions, rates ranged from 36% in Sydney's Outer South West to 60% in Perth's Inner suburbs (Figure 2). Access was lower and more uneven in non-metropolitan regions, ranging from 28% in Far West New South Wales and South Australia Outback to 55% in Queensland's Sunshine Coast (Figure 3). In most non-metropolitan SA4 regions, fewer than half of adults accessed psychotherapy within three months, and in some regions uptake was below 30%.

New South Wales had the largest within-state variation, with 21 and 24 percentage-point gaps between high- and low-access regions in metropolitan and non-metropolitan regions, respectively. Large regional differences were also evident in non-metropolitan Queensland. Conversely, metropolitan Queensland had the lowest within-state variation, with only a seven percentage-point gap. Among non-metropolitan regions, South Australia had relatively low within-state variation, but overall uptake remained low, ranging from only 28% to 37%. Overall, these patterns highlight substantial regional disparities in access to psychological care across Australia.

Figure 2: Area level differences in the proportion of individuals using psychotherapy within three months of receiving a MHTP: Metropolitan regions

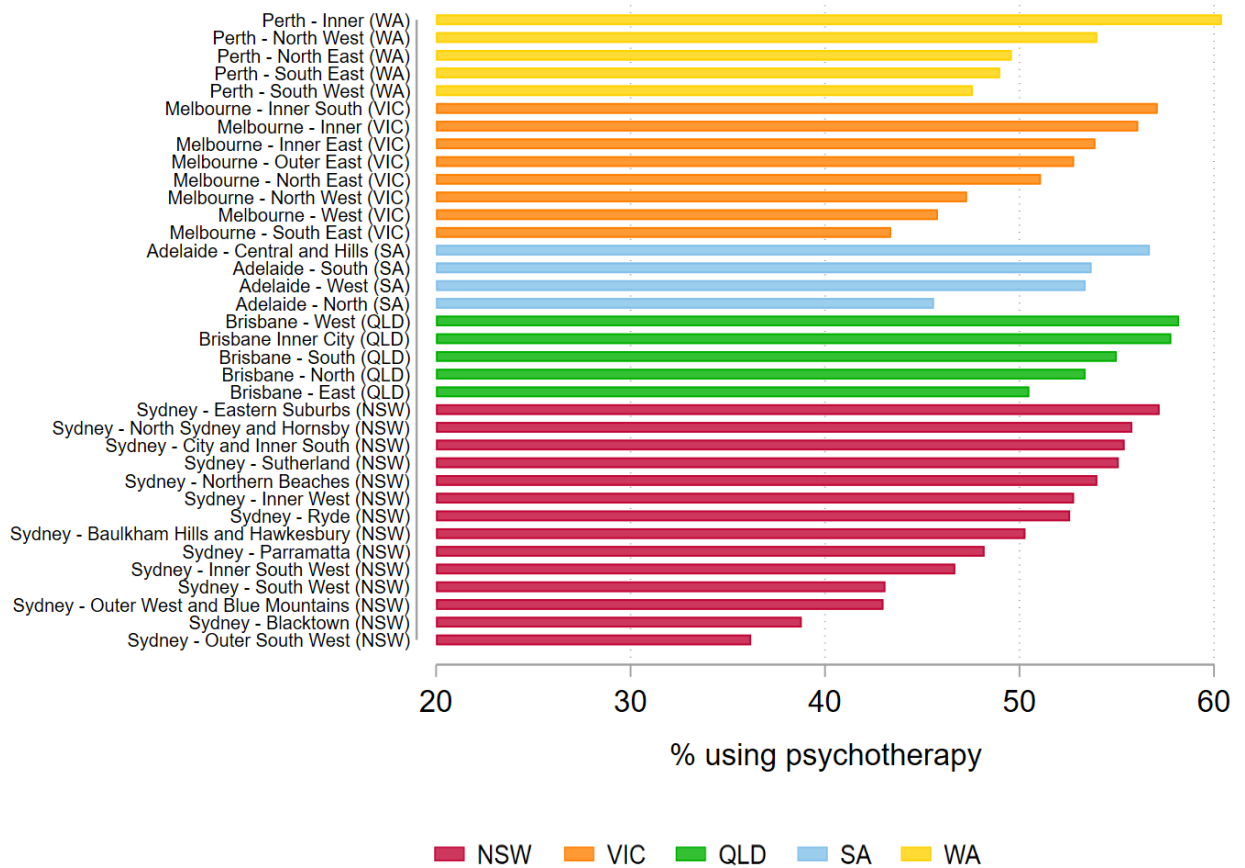
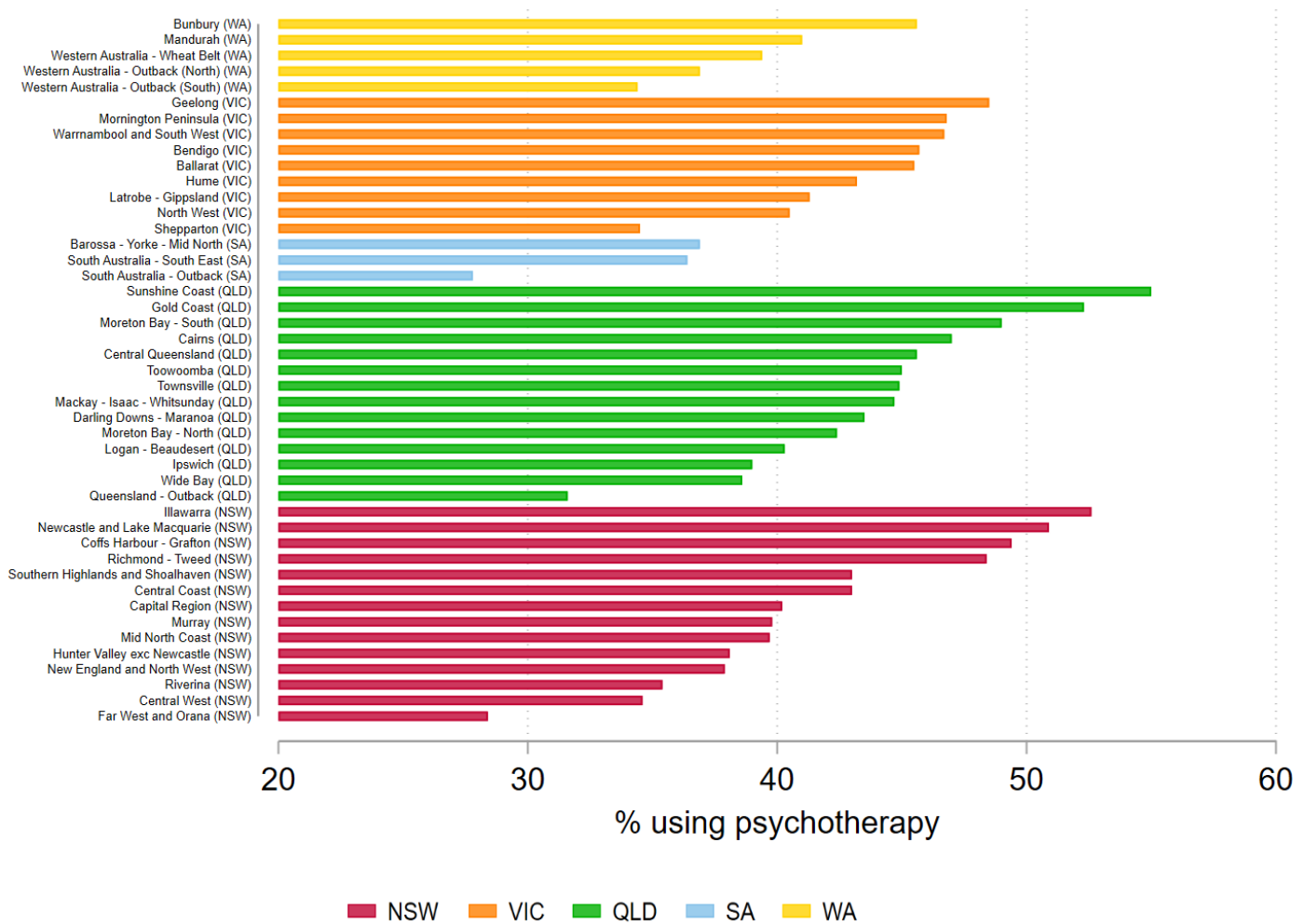


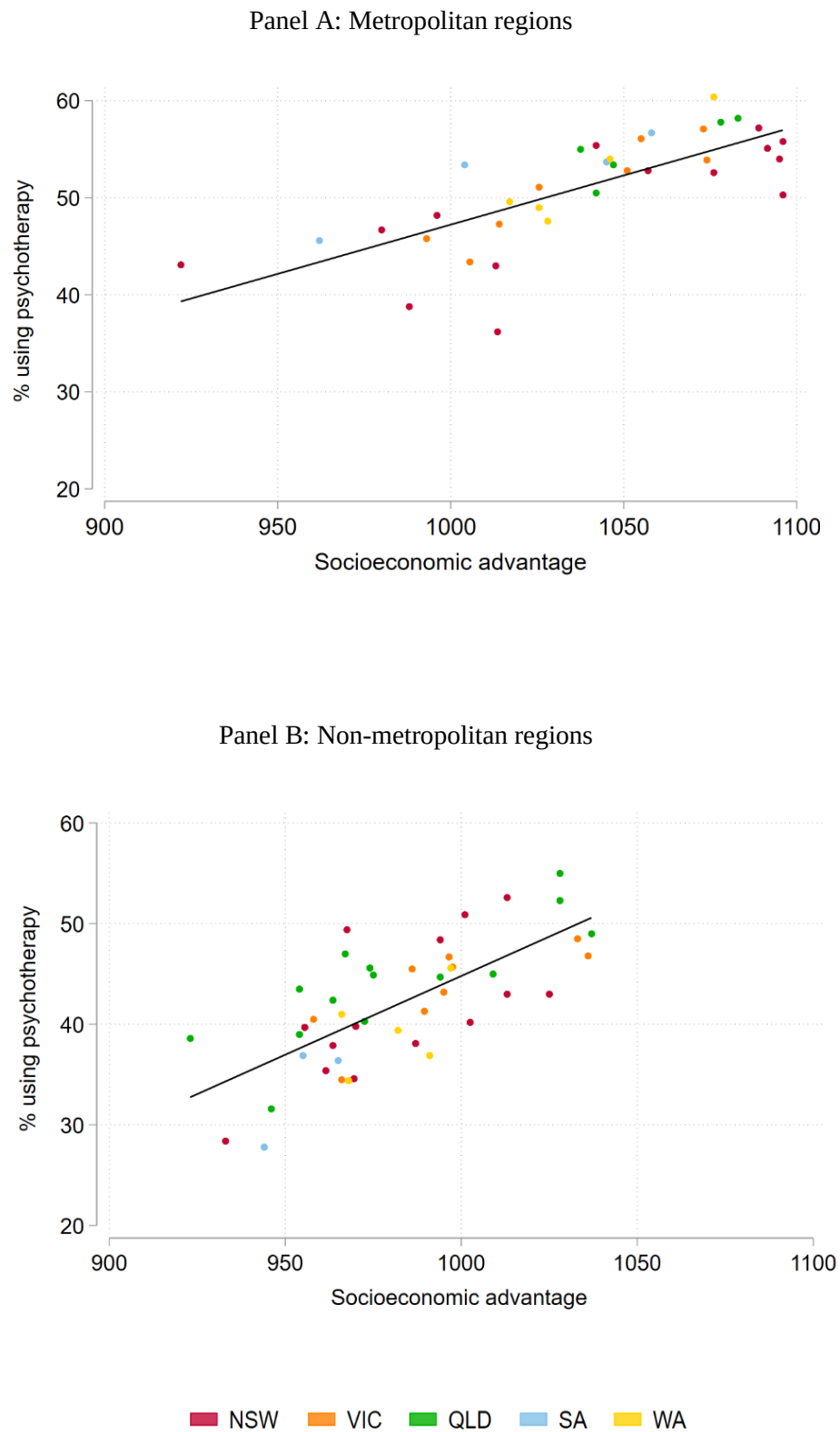
Figure 3: Area level differences in the proportion of individuals using psychotherapy within three months of receiving a MHTP: Non-metropolitan regions



3.3. How service use varies by socioeconomic disadvantage?

We next examined how access varied by area-level socioeconomic disadvantage. Across both metropolitan and non-metropolitan regions, higher socioeconomic advantage was associated with higher service use with a correlation coefficient of 0.82 (Figure 4). The relationship was steeper in non-metropolitan regions, reflected in a larger estimated slope ($\beta = 0.16$) compared with metropolitan regions ($\beta = 0.10$), where most regions with the lowest service use were also those with the highest levels of socioeconomic disadvantage. These findings indicate that socioeconomic disadvantage amplifies barriers to care, particularly in regional and rural areas.

Figure 4: Relationship between psychotherapy use and socioeconomic advantage



4.0 Discussion

Using MBS data for 2.7 million adults with a GP-initiated MHTP, this retrospective observational study investigates geographic differences in access to Medicare-subsidised psychotherapy across Australia's five mainland states over the past decade. By examining both state-level and regional variation linked to area-level socioeconomic disadvantage, we provide new population-level evidence on where and for whom access gaps are most pronounced.

A key finding of this study is that the overall use of Medicare-subsidised psychotherapy has declined substantially since 2014, despite rising mental health need and the growing recognition of psychotherapy as an effective first-line treatment. We also document marked geographic variation in access, with consistently lower uptake in non-metropolitan regions compared with metropolitan regions.

Our findings contribute to a relatively small literature on access to mental healthcare in Australia. Previous studies have documented variation in access by socioeconomic status and geography,^{3,4} but there is limited evidence on which regions experience the lowest levels of access. By examining trends over the past decade, we show long-term changes in service use and highlights regions where uptake of psychotherapy remains persistently low.

Identifying the underlying causes of the differential access to psychotherapy across Australia is outside the scope of this study. However, several factors have been shown to contribute to reduced access to care. For example, out-of-pocket costs for psychotherapy have risen steadily over the past decade, while the supply of providers has not kept pace with demand, particularly outside major cities.¹⁴ As a result, people in regional and remote areas may face particularly large out-of-pocket costs and long waiting times for psychotherapy. Other potential contributors to geographical differences over time could include changes to referral practices and patient preferences, though these changes would need to occur after a mental health treatment plan is issued to contribute to the patterns we observe.

The findings have several practical implications. For general practitioners, they highlight that a substantial share of patients, particularly those in socioeconomically disadvantaged areas, do not go on to receive the recommended psychological care after a MHTP is developed. Discussing likely fees, waiting times, and alternative low-intensity options (such as digital or group therapy) at the time of referral may help set expectations and encourage follow-through.

Encouraging a brief follow-up appointment or check-in may also help ensure that referrals translate into care.

At the system level, the results highlight the critical need for system supports that make psychological services more accessible, particularly in regions with low uptake. Strengthening rebates and reducing out-of-pocket costs, alongside increasing the availability of mental healthcare providers in under-served regions, could be considered by policy makers to improve equitable access to care.² This could be achieved through region-specific workforce programs, incentives to attract mental health professionals in non-metropolitan regions, and expanded use of digitally supported therapy, such as telehealth services.^{2,15} Empirical evidence suggests that the introduction of the Better Access initiative increased the supply of providers in non-metropolitan regions, highlighting that such targeted interventions are both effective and feasible.¹⁶

4.1. Strengths and limitations

This study has several strengths. We use population-wide administrative data, which provides complete records of all Medicare-subsidised mental healthcare use across Australia. This allows us to capture service use without recall bias and to examine patterns across all individuals with a GP-initiated MHTP. The data span a full decade, including the COVID-19 period, enabling us to document longer-term trends rather than short-term changes. We also restrict the sample to individuals with a diagnosed mental health condition through a MHTP, improving comparability across regions.

In terms of limitations our analysis does not capture the share of psychotherapy delivered outside Medicare, such as through community mental health services, self-help programs and telephone counselling services. However, the majority of mental health services are provided through Medicare-subsidised services.¹⁷ The observed patterns are also likely to underestimate the geographic variation, as our data include only people who have already obtained a diagnosis and referral (MHTP), a group that tends to be more advantaged and more likely to seek healthcare than those without a plan.¹⁴

5.0 Conclusion

This study provides population-level evidence of substantial and persistent variation in access to psychotherapy across regions over the past decade. Access has declined overall, with particularly low uptake in some regional and socioeconomically disadvantaged areas. Addressing these patterns will require coordinated efforts across general practice, service delivery, and policy settings to ensure that all Australians can access affordable mental healthcare when it is needed.

Data availability: The data for this study were obtained from the Australian Bureau of Statistics (ABS) Person Level Integrated Data Asset (PLIDA) Basic Longitudinal Extract (2011 Cohort) through approved access. Access to the data is restricted under a deed of confidentiality, and the authors are not permitted to share the data.

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SUPPORTING INFORMATION

Table 1: MHTP item numbers included in the analysis

	Face to face	Telehealth	
		Video	Telephone
20-40 mins (including GPS without mental health skills training)	2700	92112	92124 (a)
40 mins (including GPS without training)	2701	92113	92125 (a)
	2702 (a)		
	2710 (a)		
20-40 mins(with training)	2715	92116	92128 (a)
40 mins (with training)	2717	92117	92129 (a)

Notes: Items marked with (a) indicate services that have been discontinued during the analysis period from 2014 to 2023.

Table 2: MBS mental health item numbers included in the analysis

		Face to face	Existing/new teleconference	COVID Video	Telehealth Telephone
Clinical psychologists	Psychological therapy - 30-50 mins	80000	80001 (a)	91166	91181
	Psychological therapy - 30-50 mins - other than a consulting room	80005			
	Psychological therapy - at least 50 mins	80010	80011 (a)	91167	91182
	Psychological therapy - at least 50 mins - other than a consulting room	80015			
	Group therapy at least 60 mins	80020	80021		
	Group therapy at least 90 mins	80022 (n)	80023 (n)		
	Group therapy at least 120 mins	80024 (n)	80025 (n)		
General psychologists	FPS 20-50 mins	80100	80101 (a)	91169	91183
	FPS - other place - 20-50 mins	80105			
	FPS - at least 50 mins	80110	80111 (a)	91170	91184
	FPS - other place at least 50 mins	80115			
	FPS - group - 60 mins	80120	80121		
	FPS - group - 90 mins	80122 (n)	80123 (n)		
	FPS - group 120 mins	80127 (n)	80128 (n)		
Occupational therapist	FPS - 20-50 mins	80125	80126	91172	91185
	FPS - 20-50 mins - other	80130			
	FPS - 50 mins	80135	80136	91173	91186
	FPS - 50 mins - other	80140			
	FPS - group - 60 mins	80145	80146		
	FPS - group - 90 mins	80147 (n)	80148 (n)		
	FPS - group - 120 mins	80152 (n)	80153 (n)		
Social workers	FPS - 20-50 mins	80150	80151	91175	91187
	FPS - 20-50 mins - other	80155			
	FPS - 50 mins	80160	80161	91176	91188
	FPS - 50 mins - other	80165			
	FPS - group - 60 mins	80170	80171		
	FPS - group - 90 mins	80172 (n)	80173 (n)		
	FPS - group - 120 mins	80174 (n)	80175 (n)		

Notes: FPS stands for Focused Psychological Strategies. Items marked with (a) indicate services that have been discontinued, while items marked with (n) represent newly introduced services during the analysis period from 2014 to 2023.

