

Disparities in access to health care in Australia for people with mental health conditions

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Abstract

Objective. One aim of Australia's Equally Well National Consensus Statement is to improve monitoring of the physical health of people with mental health conditions, which includes measures of accessibility and people's experiences of physical health care services. The present analysis contributes to this aim by using population survey data to evaluate whether, and in what domains, Australians with a mental health condition experience barriers in accessing care when compared with Australians without a mental health condition.

Methods. The 2016 Commonwealth Fund International Health Policy Survey includes a sample of 5248 Australian adults. Access to care was measured using 39 survey questions from before to after reaching services. Multivariable logistic regression models were used to identify disparities in barriers to access, comparing experiences of people with and without a self-reported mental health condition, adjusting for age, sex, immigrant status, income and self-rated health.

Results. Australians with mental health conditions were more likely to experience barriers for 29 of 39 access measures (odds ratio (OR) >1.55; $P < 0.05$). On average, the prevalence of barriers was 10 percentage points higher for those with a condition. When measured as ratios, the largest barriers for people with mental health conditions were for affordability. When measured as percentage point differences, the largest disparities were observed for experiences of not being treated with respect in hospital. Disparities remained after adjusting for income, rurality, education, immigrant status and self-rated health for 25 of 39 measures.

Conclusion. Compared with the rest of the community, Australians with mental health conditions have additional challenges negotiating the health system, and are more likely to experience barriers to access to care across a wide range of measures. Understanding the extent to which people with mental health conditions experience barriers throughout the pathway to accessing care is crucial to inform care planning and delivery for this vulnerable group. Results may inform improvements in regular performance monitoring of disparities in access for people with mental health conditions.

What is known about this topic? A stated national aim of the Equally Well National Consensus Statement is to improve monitoring of the physical health and well-being of people with mental health conditions through measures of service accessibility and people's experiences of physical healthcare services.

What does this paper add? This paper highlights areas in which health services are not providing equal access to overall care for people with mental health conditions. The analysis offers quantitative evidence of 'red flag areas' where people with mental health conditions are significantly more likely to experience barriers to access to care.

What are the implications for practitioners? Systematic attention across the health system to making care more approachable and accessible for people with mental health conditions is needed. Practitioners may be engaged to discuss possible interventions to improve access disparities for people with mental health conditions.

Additional keywords: accessibility of healthcare services, equity, vulnerable groups.

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Introduction

Ensuring access to health care for everyone in need is a goal of the health system in Australia. In 2017, the National Mental Health Commission released a consensus statement with a vision to improve the lives of people living with mental illnesses by improving equity in access to quality health care.¹ As part of the National Health Performance Framework, accessing care is described as people being able to 'obtain health care at the right place and right time irrespective of income, physical location and cultural background'.² Access can be considered as the 'fit' between the patient's needs and expectations and the service delivered.³ Access to care has been broadly conceptualised across five dimensions: (1) approachability (awareness of the existence of services, how to reach them and the effect they have on one's health); (2) acceptability (social or cultural factors that affect the use of services); (3) availability (ability to reach the service both physically and in a timely manner); (4) affordability (ability to pay for services); and (5) appropriateness (the ability to engage in care that is of a reasonable quality).³⁻⁵ Barriers to access to care can occur at any or all of these stages.

Disparities in access to care have been shown to exist across a range of population groups. Within the literature, regarding equity in access to care both globally and in Australia,^{2,6} there is a focus on income when identifying groups 'vulnerable' to barriers to access to care. Australians from low socioeconomic status areas are more likely to face barriers in terms of foregone dental care and delayed prescription medication due to cost compared with those from the highest socioeconomic status areas.⁷ Barriers to access to care have also been shown to disproportionately affect Indigenous Australians and those living in rural areas.^{2,6,8-10} There is also some evidence that compared with people with no conditions, people with chronic conditions are more likely to have barriers reaching care after-hours and to wait several days to get an appointment when sick.¹¹ However, research exploring access to overall care for people with mental health conditions is a notable gap given that people with mental health conditions have been shown to have higher out-of-pocket health care costs and to be more likely to forego care due to cost than people with no chronic conditions.¹² Indeed, a review of performance measures for public reporting on healthcare in Australia recommended that populations with mental health conditions be considered.¹³

Studies have shown that disparities in health care provision faced by people with mental illnesses contribute to poor physical health outcomes.^{14,15} For example, people with a mental health condition have an average life expectancy >10 years less than the general population. For those with a serious mental illness, such as schizophrenia or substance disorder, the gap in life expectancy is >20 years.¹⁶ Australian research shows that physical health conditions are one of the main causes of early mortality among people with mental illness.¹⁷ Improved access to care could help reduce the gap in life expectancy for people with mental illness.^{16,18} Thus, identifying disparities in access to all care is an essential first step in strengthening equity and improving health outcomes for people with mental health conditions.

This study examined disparities in barriers to accessing health care for people with mental health conditions using a broad conceptualisation of access to care. The study aimed to address the following questions.

1. Are Australians with mental health conditions more likely to experience barriers to access to care across a range of access measures?
2. Do disparities remain after considering factors such as income, education, age and rurality?
3. Which access measures reflect the largest disparities between Australians with and without mental health conditions?

Methods

The 2016 Commonwealth Fund International Health Policy Survey of adults aged ≥ 18 years was conducted in Australia and 10 other countries.¹⁹ The focus of the analysis in this paper was the 5248 respondents from Australia, responding by landline and mobile telephone with a response rate of 25.4%. Results of the analysis were calculated using sample weights provided so that the estimates are representative of the age, sex, regional and education profile of Australia.

The Commonwealth Fund International Health Policy survey contains more than 60 health and health care-related questions.¹⁹ Thirty-nine survey questions that were considered a measure of access to care or a reasonable proxy were retained in the present study because they mapped to one of the five dimensions of access based on the conceptual model proposed by Levesque *et al.*⁴ The objective was to examine differences in access by mental health status using the framework as a guide. We excluded questions related to processes where no clear direction of good could be established (e.g. 'Do you email your doctor?') and those about safety or efficiency of a service (e.g. given the wrong medication or dose, unnecessary tests ordered). Responses were selected to frame each question as an access barrier. Where responses were not dichotomous, responses of 'sometimes', 'rarely' and 'never' were categorised as no, whereas 'always' and 'often' were grouped as 'yes'.

Survey responses, as access barriers, were mapped to each dimension of access to care as detailed below:

1. Approachability: no affiliation with a regular provider and aspects of a lack of trust are captured in questions that reflect whether respondents do not have a regular doctor, if they were not treated with respect or felt that the medical care they received was poor or the health system needed to be completely rebuilt
2. Acceptability: reflections of challenges in autonomy or ability to seek care for people with chronic conditions were captured in responses where people felt they had no professional support for their condition or they could not manage their health problem at home
3. Availability: barriers of long waits to get a primary or specialist care appointment and time waiting in emergency or to get to elective surgery were captured under this dimension, as was perceived availability of after-hours care
4. Affordability: problems paying medical bills or foregoing different types of care due to cost were included
5. Appropriateness: problems with coordination of care, aspects of communication with care providers where records were not available, a lack of engagement of patients in their own care with an absence of written plans and a lack of involvement in decisions were captured in this dimension.

Complete questions are available in Appendix 1.

For the purpose of this analysis, people with mental health conditions were identified as respondents who reported they had been diagnosed with a mental illness or answered 'yes' when asked whether, in the past 2 years, they experienced anxiety or great sadness that they found difficult to cope with themselves. Participants who did not respond to both questions ($n = 13$) were excluded from the analysis. The resulting prevalence of people with a mental health condition (Table 1; 23%) aligns well with national prevalence estimates, which was the primary reason for considering not only those who

had a mental illness, but also to include people who experienced emotional distress. In 2007, 20% of Australian adults had a mental illness based on the Mental Health and Well Being Survey.⁸ In 2014–15, 18% had a mental health condition² and 12% had psychological distress based on the National Health Survey.²⁰

Descriptive analysis was conducted to estimate the prevalence of each access barrier for people with and without a mental health condition. The percentage of respondents reporting each barrier was calculated by group as well as the percentage point difference between groups. Logistic regression models

Table 1. Population characteristics by presence of a mental health condition

Data are presented as % (n)

	Mental health condition	No mental health condition	Total
Age (years)			
18–34	28 (171)	36 (1185)	34 (1357)
35–49	27 (282)	26 (1226)	26 (1516)
50–64	28 (348)	20 (946)	22 (1298)
≥65	16 (215)	17 (800)	17 (1015)
Sex			
Female	59 (609)	47 (2094)	50 (2709)
Male	41 (422)	53 (2110)	50 (2539)
Income			
Below average	47 (447)	31 (1260)	35 (1711)
Average	23 (197)	28 (1043)	27 (1241)
Above average	20 (256)	27 (1238)	25 (1495)
Not sure or decline to answer	11 (131)	14 (663)	13 (801)
Highest level of education			
More than year 12	42 (604)	56 (2811)	53 (3420)
Year 12 or less	58 (406)	44 (1276)	47 (1687)
Aboriginal or Torres Strait Islander			
Non-Aboriginal	95 (993)	98 (4154)	97 (5160)
Aboriginal or Torres Strait Islander	5 (38)	2 (50)	3 (88)
Rurality			
Metropolitan	65 (538)	70 (2451)	69 (2996)
Non-metropolitan	35 (493)	30 (1753)	31 (2252)
Born in Australia			
Non-immigrant	79 (819)	78 (3309)	78 (4137)
Immigrant	21 (201)	22 (841)	22 (1044)
Self-rated health			
Good, very good, excellent	80 (784)	93 (3879)	90 (4675)
Fair or poor	20 (245)	7 (322)	10 (568)
No. chronic conditions			
0	23 (209)	66 (2660)	56 (2872)
1	27 (270)	18 (818)	20 (1088)
≥2	49 (537)	14 (643)	22 (1181)
Mental health diagnosis			
Has been diagnosed	57 (545)		14 (545)
None	43 (486)		86 (4585)
Emotional distress			
Experienced emotional distress	24 (874)		20 (874)
No experience of distress	76 (153)		80 (4309)
Mental condition or distress			
Yes	100 (1031)		23 (1031)
No		100 (4204)	77 (4204)

were run using SAS/STAT Proc Surveylogistic, Version 9.3 (SAS Institute, Cary, NC, USA) to assess the likelihood of experiencing barriers in access to care for people with mental health conditions, unadjusted and after adjusting for age, sex, income, immigrant status, rurality and highest level of education.

Results

Almost one-quarter of Australian adults said they had been diagnosed with a mental illness or experienced emotional distress and felt they could not cope in the 2 years prior (23%; Table 1). Those with a mental health condition were more

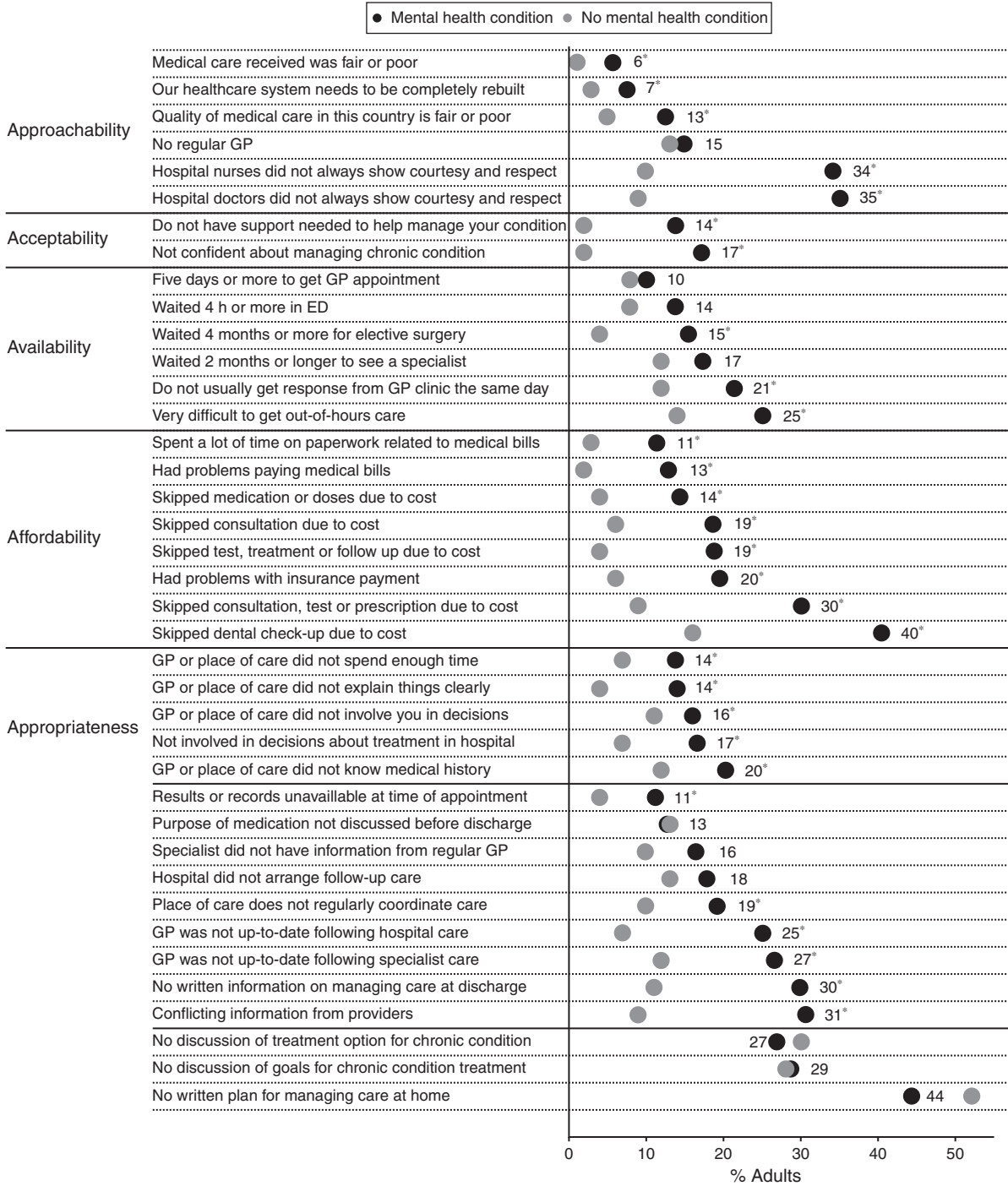


Fig. 1. Percentage of adults reporting access barriers by presence of a mental health condition. Descriptive results are based on unadjusted percentages by population group. Results are sorted within access dimension grouping or subgrouping in ascending order by the size of the barrier for the mental health condition group. *Unadjusted odds ratios >1 (P < 0.05). GP, general practitioner; ED, emergency department.

likely to be female, Aboriginal or Torres Strait Islander and have lower education and income than adults with no mental health conditions.

Compared with people with no mental health condition, adults with a mental health condition were more likely to

experience barriers to access to care on 29 of 39 access-related measures grouped into five dimensions of access (Fig. 1).

The size of disparities is described in Table 2 as unadjusted and adjusted odds ratios (ORs) for each of the 39 access-related barriers. In four measures, differences were no longer significant

Table 2. Disparities in access to care for people with mental health conditions, as differences, odds ratios (ORs) and adjusted ORs (aORs) compared with those with no mental health conditions in Australia

Shading indicates where odds or adjusted odds are significant at $P < 0.05$. The adjusted model includes age, sex, immigrant status, income, education, self-rated health and rurality. All results based on $n > 30$. CI, confidence interval; GP, general practitioner; ED, emergency department

	Mental health group (%)	Percentage point difference vs no mental health condition	OR (95% CI)	P-value	aOR (95% CI)	P-value
1. Approachability						
No regular GP	15	2	1.18 (0.68–2.07)	0.552	1.21 (0.67–2.20)	0.5268
Medical care received was fair or poor	6	5	5.02 (2.09–12.07)	<0.001	3.79 (1.75–8.21)	0.0007
Our healthcare system needs to be completely rebuilt	7	4	2.41 (1.17–4.93)	0.017	1.60 (0.83–3.11)	0.1617
Quality of medical care in this country is fair/poor	13	8	2.70 (1.59–4.58)	<0.001	1.79 (1.05–3.06)	0.0339
Doctors did not always show courtesy and respect ^A	35	26	5.11 (2.47–10.55)	<0.001	4.82 (2.20–10.59)	<0.001
Nurses did not always show courtesy and respect ^A	34	24	4.60 (2.13–9.95)	<0.001	4.64 (2.11–10.21)	0.0001
2. Acceptability						
Do not have professional support to manage condition ^A	14	12	7.54 (2.69–21.1)	<0.001	5.70 (2.27–14.31)	0.0002
Not confident about managing health problem ^A	17	15	9.17 (4.0–21.03)	<0.001	7.94 (3.3–19.09)	<0.001
3. Availability						
Five days or more to get GP appointment	10	2	1.34 (0.81–2.22)	0.259	1.17 (0.69–1.99)	0.5539
Do not regularly get a response from GP clinic the same day	21	9	2.01 (1.29–3.12)	0.002	2.12 (1.32–3.39)	0.0018
Very difficult to get out-of-hours care	25	11	2.12 (1.38–3.26)	0.001	1.63 (1.02–2.61)	0.0426
Waited 4 months or more for elective surgery ^A	15	11	4.41 (1.37–14.16)	0.013	2.22 (0.77–6.44)	0.1403
Waited 4 h or more in ED ^A	14	6	1.98 (0.69–5.70)	0.207	1.81 (0.72–4.56)	0.2067
Waited 2 months or longer to see a specialist ^A	17	5	1.53 (0.85–2.76)	0.160	1.21 (0.71–2.06)	0.4808
4. Affordability						
Had problems paying medical bills	13	11	6.37 (3.85–10.54)	<0.001	4.57 (2.58–8.09)	<0.001
Had problems with insurance payment	20	14	3.60 (2.26–5.75)	<0.001	3.36 (2.08–5.44)	<0.001
Spent a lot of time on paperwork related to medical bills	11	8	4.41 (2.61–7.44)	<0.001	3.23 (1.91–5.44)	<0.001
Skipped consultation due to cost	19	13	3.66 (2.14–6.28)	<0.001	2.90 (1.72–4.89)	<0.001
Skipped consultation, test or prescription due to cost	30	21	4.39 (2.88–6.69)	<0.001	3.52 (2.31–5.38)	<0.001
Skipped dental check-up due to cost	40	24	3.59 (2.52–5.12)	<0.001	3.24 (2.22–4.73)	<0.001
Skipped medication or doses due to cost	14	10	3.95 (2.11–7.43)	<0.001	2.99 (1.60–5.58)	0.0006
Skipped test, treatment or follow-up due to cost	19	15	5.19 (3.21–8.38)	<0.001	3.86 (2.32–6.43)	<0.001
5. Appropriateness (coordination, engagement)						
Place of care does not regularly coordinate care ^A	19	9	2.06 (1.25–3.4)	0.005	1.83 (1.13–2.97)	0.0146
Received conflicting information	31	22	4.40 (2.80–6.90)	<0.001	3.56 (2.27–5.56)	<0.001
GP was not up-to-date following hospital care ^A	25	18	7.37 (3.35–16.21)	<0.001	7.54 (2.65–21.42)	0.0002
Specialist did not have information from regular GP ^A	16	6	1.80 (0.89–3.65)	0.102	1.62 (0.85–3.06)	0.1414
GP was not up-to-date following specialist care ^A	27	15	2.76 (1.49–5.12)	0.001	2.24 (1.25–4.00)	0.0067
Hospital did not arrange follow-up care ^A	18	5	1.44 (0.43–4.78)	0.554	1.42 (0.51–4.01)	0.505
Results or records unavailable at time of appointment	11	7	3.46 (1.87–6.41)	<0.001	2.86 (1.61–5.1)	0.0004
No written information at discharge about managing care ^A	30	19	3.64 (1.64–8.08)	0.001	3.34 (1.51–7.4)	0.003
Not involved in decisions about treatment in hospital ^A	17	10	2.79 (1.10–7.08)	0.031	2.55 (0.99–6.56)	0.0528
Purpose of medication not discussed at hospital discharge ^A	13	0	1.00 (0.25–4.04)	0.995	0.94 (0.33–2.70)	0.9101
GP or place of care does not explain things clearly	14	10	3.61 (2.04–6.40)	<0.001	3.20 (1.79–5.72)	<0.001
GP or place of care does not involve you in decisions	16	5	1.55 (1.01–2.39)	0.047	1.60 (1.0–2.55)	0.0514
GP or place of care does not know medical history	20	8	1.83 (1.19–2.82)	0.006	1.94 (1.28–2.94)	0.0017
GP or place of care does not spend enough time	14	7	2.19 (1.37–3.49)	0.001	2.33 (1.42–3.82)	0.0008
No discussion of goals for chronic condition treatment ^A	29	1	1.03 (0.67–1.57)	0.911	1.14 (0.76–1.72)	0.53
No discussion of treatment options for chronic condition ^A	27	–3	0.85 (0.55–1.30)	0.446	0.93 (0.62–1.40)	0.7223
No written plan for managing care at home ^A	44	–8	0.74 (0.49–1.11)	0.146	0.82 (0.55–1.24)	0.3514
Mean	20	9.92				

^AQuestions asked of a subgroup population who used the selected service or had a chronic condition.

Table 3. Questions reflecting the largest disparities as adjusted odds ratios (aOR) or percentage point differences
CI, confidence interval

	Mental health condition (%)	Percentage point difference vs no mental health condition	aOR (95% CI)	P-value	Largest five aOR	Largest five differences
Not confident about managing health problem ^A	17	15	7.94 (3.3–19.09)	<0.001	1	
GP was not up-to-date following hospital care ^A	25	18	7.54 (2.65–21.42)	0.0002	2	
Do not have professional support to manage condition ^A	14	12	5.70 (2.27–14.31)	0.0002	3	
Doctors did not always show courtesy and respect ^A	35	26	4.82 (2.2–10.59)	<0.001	4	1
Nurses did not always show courtesy and respect ^A	34	24	4.64 (2.11–10.21)	0.0001	5	2
Skipped dental check-up due to cost	40	24	3.24 (2.22–4.73)	<0.001		3
Conflicting information from health professionals	31	22	3.56 (2.27–5.56)	<0.001		4
Skipped consultation, test or prescription due to cost	30	21	3.52 (2.31–5.38)	<0.001		5

^AQuestions asked of a subgroup population who used the selected service or had a chronic condition.

after adjusting for these factors, including approachability measures related to trust, availability measures and appropriateness measures related to engagement. For the remaining 25 measures, disparities experienced by people with mental health conditions remained statistically significant after adjusting for age, sex, education, income, rurality and immigrant status.

The largest disparities, measured as differences and ratios are given in Table 3. People with a mental health condition were more likely than those with other chronic conditions to report that they were not confident about managing their condition (OR 9.2; 95% confidence interval (CI) 4.0–21.0) and that they did not have the professional support needed to manage their condition (OR 7.5; 95% CI 2.7–21.1). Adults with a mental health condition were over 20 percentage points (the largest absolute differences) more likely to experience a lack of courtesy and respect in hospital, to forego dental or other care due to cost and to receive conflicting information from care providers.

Discussion

This paper presents an initial analysis of the disparities in access to overall care for Australians with and without mental health conditions. This is the first analysis we are aware of to demonstrate that Australians with mental health conditions are significantly more likely to experience barriers in access to care compared with people with no reported mental health condition. These disparities were large, with the mental health condition group 10 percentage points more likely to report barriers, on average, and varied, with disparities spanning affordability, integration and coordination of care measures. Moreover, the disparities persisted after adjusting for social and demographic characteristics, including rurality and income.

In Australia as well as internationally, there are evidence-based interventions seeking to improve the physical health of people with mental health conditions. Internationally, a multi-level intervention framework to reduce excess mortality outlines interventions for people with mental illness across individual, health system and community levels to improve engagement around lifestyle factors, early detection of physical health conditions, address stigma and provide social support.²¹ Domestically, the Mental Health Commission of New South Wales has published the Physical Health and Mental

Wellbeing: Evidence Guide, which outlines a comprehensive approach across multiple levels, including awareness of physical health effects of medications (e.g. antipsychotics and obesity), training for staff and population approaches to reducing stigma.²² For clinicians, Australian research has suggested an assessment and monitoring package for the physical care of people with mental health conditions.²³ Although there is growing attention on integrating services to improve access and addressing physical health conditions of people with mental illness, there is little evidence of monitoring the progress achieved by these efforts.

The analysis presented herein provides a baseline measure of disparities in access to overall care, and demonstrates substantial disparities in access between those with and without a mental health condition, which can be used by health services with the aim of service improvement. Similar studies have shown people with multiple chronic conditions were more likely to forego care due to cost, have long waits to see the general practitioner or specialist and have problems with medical bills compared with people with no conditions in Australia, based on findings from the 2010 Commonwealth Fund International Health Policy Survey.¹¹ The present study builds on findings demonstrating that people with mental health conditions faced multiple barriers to access to primary care across several countries.²⁴ We look more broadly at measures of access to care and expand the definition of mental health conditions to include those experiencing emotional distress but who do not have a diagnosed condition.

Survey data reviewed for this study demonstrated that, in 2016, more than one in five Australian adults (23%) had been previously diagnosed with a mental illness or had experienced distress and had difficulties coping in the previous 2 years. Improved evidence and monitoring of the access to and quality of care for people with mental health conditions is a policy and research priority.^{13,25} In 2016, the National Mental Health Commission released a consensus statement with a vision to improve the lives of people living with mental illnesses by improving equity in access to quality health care.¹ As noted previously, The Equally Well Consensus Statement: Improving the Physical Health and Wellbeing of People Living with Mental Illness in Australia, highlights a goal of monitoring progress through performance indicators that focus on people's experiences of physical healthcare services among other measures.¹ Disparities in access to care for Australians with mental health

conditions identified in the present study may reflect barriers to either physical or mental health-related services or both. However, using population surveys to reflect on access contributes evidence towards the goal of monitoring by highlighting particular vulnerabilities of people with mental health conditions in accessing and navigating the health system.

There are limitations to this study that should be acknowledged. The survey does not capture institutionalised populations and therefore likely underrepresents those with severe mental illness. Barriers regarding access to care may reflect either physical or mental health services or both, and cannot be attributed to a specific healthcare sector. The conceptual framework of access was used as a guide and is not covered comprehensively by the survey questions; for example, measures of people's ability to perceive needs and seek care are not considered. Further analysis is limited because there are several survey questions asked only of people who had elective surgery, used specialist or hospital services or needed after-hours care, or had care for a chronic condition. For these measures, based on smaller numbers of respondents, the sizes of disparities were large, which highlights possible methodological challenges to be overcome. Measurement of disparities through ratios and percentage point differences does not reflect the population effect of the disparity. The survey questions were dichotomised to focus on barriers in survey questions. There is room for future work to validate disparity measures to ensure they meet rigorous indicator criteria be useful in health system performance reporting.

Conclusions

The findings presented here highlight the vulnerabilities of people with mental health conditions in navigating the health system and throw up a red flag in relation to a key dimension of the Australian National Health Performance Framework: equity and access to care. The results of this analysis speak to disjointed care processes along the continuum of primary through to hospital care that disproportionately affect access to overall care for people with mental health conditions. These findings can be used to inform service delivery improvement by highlighting areas where healthcare services are currently performing poorly for people with mental health conditions.

Competing interests

The authors declare that they have no competing interests.

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References

- 1 National Mental Health Commission (NMHC). Equally well consensus statement: improving the physical health and wellbeing of people living with mental illness in Australia. Sydney: NMHC; 2016.
- 2 Australian Institute for Health and Welfare (AIHW). Australia's health 2016. Canberra: AIHW; 2016.
- 3 Penchansky R, Thomas JW. The concept of access – definition and relationship to consumer satisfaction. *Med Care* 1981; 19: 127–40. doi:10.1097/00005650-198102000-00001
- 4 Levesque JF, Harris MF, Russell G. Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *Int J Equity Health* 2013; 12: 18. doi:10.1186/1475-9276-12-18
- 5 Franks P, Fiscella K. Reducing disparities downstream: prospects and challenges. *J Gen Intern Med* 2008; 23: 672–7. doi:10.1007/s11606-008-0509-0
- 6 Steering Committee for the Review of Government Service Provision. Report on government services 2016. Canberra: Productivity Commission; 2016.
- 7 Australian Bureau of Statistics (ABS). Patient experiences in Australia: summary of findings 2015–16. Canberra: ABS; 2016.
- 8 Australian Bureau of Statistics (ABS). National survey of mental health and wellbeing: summary of results 2007. Canberra: ABS; 2008.
- 9 Australian Institute of Health and Welfare (AIHW). Mental health services – in brief 2016. Canberra: AIHW; 2016.
- 10 Department of Health and Ageing. National mental health report 2013: tracking progress of mental health reform in Australia 1993–2011. Canberra: Commonwealth of Australia; 2013.
- 11 Schoen C, Osborn R, Squires D, Doty MM, Pierson R, Applebaum S. How health insurance design affects access to care and costs, by income, in eleven countries. *Health Aff (Millwood)* 2010; 29: 2323–34. doi:10.1377/hlthaff.2010.0862
- 12 Callander EJ, Corscadden L, Levesque J-F. Out-of-pocket healthcare expenditure and chronic disease – do Australians forgo care because of the cost? *Aust J Prim Health* 2017; 23: 15–22. doi:10.1071/PY16005
- 13 Hibbert P, Hannaford N, Long J, Plumb J, Braithwaite J. Final report: performance indicators used internationally to report publicly on healthcare organisations and local health systems. Sydney: Australian Institute of Health Innovation, University of New South Wales; 2013.
- 14 Kisely S, Smith M, Lawrence D, Cox M, Campbell LA, Maaten S. Inequitable access for mentally ill patients to some medically necessary procedures. *CMAJ* 2007; 176: 779–84. doi:10.1503/cmaj.060482
- 15 Lawrence D, Kisely S. Review: inequalities in healthcare provision for people with severe mental illness. *J Psychopharmacol* 2010; 24(Suppl): 61–8. doi:10.1177/1359786810382058
- 16 The Royal Australian and New Zealand College of Psychiatrists. The economic cost of serious mental illness and comorbidities in Australia and New Zealand. Melbourne: Royal Australian and New Zealand College of Psychiatrists; 2016.
- 17 Lawrence D, Hancock KJ, Kisely S. The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. *BMJ* 2013; 346: f2539. doi:10.1136/bmj.f2539
- 18 Thornicroft G. Physical health disparities and mental illness: the scandal of premature mortality. *Br J Psychiatry* 2011; 199: 441–2. doi:10.1192/bjp.bp.111.092718
- 19 The Commonwealth Fund. 2016 Commonwealth Fund International Health Policy Survey of Adults; 2016. Available at: <https://www.commonwealthfund.org/publications/surveys/2016/nov/2016-commonwealth-fund-international-health-policy-survey-adults> [verified 6 July 2018].
- 20 Australian Bureau of Statistics (ABS). 4364.0.55.001 – National health survey: first results, 2014–15. Canberra: ABS; 2015.
- 21 Liu NH, Daumit GL, Dua T, Aquila R, Charlson F, Cuijpers P, Druss B, Dudek K, Freeman M, Fujii C, Gaebel W, Hegerl U, Levav I, Munk Laursen T, Ma H, Maj M, Elena Medina-Mora M, Nordentoft M, Prabhakaran D, Pratt K, Prince M, Rangaswamy T, Shiers D, Susser E, Thornicroft G, Wahlbeck K, Fekadu Wassie A, Whiteford H, Saxena S. Excess mortality in persons with severe mental disorders: a multilevel intervention framework and priorities for clinical practice, policy and research agendas. *World Psychiatry* 2017; 16: 30–40. doi:10.1002/wps.20384

- 22 Mental Health Commission of NSW. Physical health and mental well-being evidence guide. Sydney: Mental Health Commission of NSW; 2016.
- 23 Stanley SH, Laugharne JD. Clinical guidelines for the physical care of mental health consumers: a comprehensive assessment and monitoring package for mental health and primary care clinicians. *Aust N Z J Psychiatry* 2011; 45: 824–9. doi:10.3109/00048674.2011.614591
- 24 Corscadden L, Levesque JF, Lewis V, Strumpf E, Breton M, Russell G. Factors associated with multiple barriers to access to primary care: an international analysis. *Int J Equity Health* 2018; 17: 28. doi:10.1186/s12939-018-0740-1
- 25 Department of Health. The fifth national mental health plan (fifth plan) consultation draft. Canberra: Department of Health; 2016.

Appendix 1. Full question wording

Mental health-related questions (and response options)

Have you ever been told by a doctor you have depression, anxiety or other mental health problems? (Yes, no)
 In the past 2 years, have you experienced emotional distress such as anxiety or great sadness which you found difficult to cope with by yourself? (Yes, no)

1. Approachability-related questions (with response options(s) selected as reflecting access barriers)

How would you rate the overall quality of medical care in your country? (Fair or poor)
 Is there one doctor you usually go to for your medical care? (No)
 Overall, how do you rate the medical care that you have received in the past 12 months from your regular [general practitioner's (GP)] practice? (Fair or poor)
 Which of the following statements comes closest to expressing your overall view of the healthcare system in your country? (Our health care system has so much wrong it needs to be completely rebuilt)
 During this hospital stay, how often did doctors treat you with courtesy and respect? (Sometimes, rarely or never)
 During this hospital stay, how often did nurses treat you with courtesy and respect? (Not always)

2. Acceptability-related questions (with response options(s) selected as reflecting access barriers)

How confident are you that you can control and manage your health problems? (Not very or not at all confident)
 In general, do you feel that you have had as much support from health professionals as you need to help you manage your health problems? (No)

3. Availability-related questions (with response options(s) selected as reflecting access barriers)

After you were advised to see or decided to see a specialist, how long did you have to wait for an appointment? (2 months or longer)
 After you were advised you needed surgery, how many days, weeks or months did you have to wait for the non-emergency or elective surgery? (4 months or more)
 How easy or difficult is it to get medical care in the evenings, on weekends, or holidays without going to the hospital emergency department? Is it...? (Very difficult)
 Last time you were sick or needed medical attention, how quickly could you get an appointment to see a doctor or a nurse? (Over 5 days)
 The last time you went to the hospital emergency department, how long did you wait before being treated? (4 or more hours)
 When you contact your regular doctor's office with a medical question during regular practice hours, how often do you get an answer that same day? (Sometimes, rarely or never)

4. Affordability-related questions (with response options(s) selected as reflecting access barriers)

During the past 12 months, was there a time when you did not fill a prescription for medicine, or you skipped doses of your medicine because of the cost? (Yes)
 During the past 12 months, was there a time when you had a medical problem but did not visit a doctor because of the cost? (Yes)
 During the past 12 months, was there a time when you skipped a medical test, treatment, or follow-up that was recommended by a doctor because of the cost? (Yes)

During the past 12 months, was there a time when you skipped dental care or dental check-ups because of the cost? (Yes)
 During the past 12 months, was there a time when you skipped: a consultation, a test or follow-up, or medication or doses, due to cost? (Yes)
 In the past 12 months, were there times when you had serious problems paying or were unable to pay your medical bills? (Yes)
 In the past 12 months, were there times when you spent a lot of time on paperwork or disputes related to medical bills? (Yes)
 In the past 12 months, were there times when your insurance denied payment for your medical care or did not pay as much as you expected? (Yes)

5. Appropriateness-related questions (with response options(s) selected as reflecting access barriers)

During the past year, when you received care, has any healthcare professional you see for your condition discussed with you your main goals or priorities in caring for this condition? (No)
 During the past year, when you received care, has any healthcare professional you see for your condition, discussed with you your treatment options, including possible side effects? (No)
 During the past year, when you received care, has any healthcare professional you see for your condition, given you a written plan to help you manage your own care? (No)
 After you left the hospital, did the doctors or staff at the place where you usually get medical care seem informed and up-to-date about the care you received in the hospital? (No)
 How often does your regular doctor or someone in your doctor's practice/GP's practice help coordinate or arrange the care you receive from other doctors and places? (Sometimes, rarely or never)
 In the past 2 years, have you experienced the following: after you saw the specialist, your regular GP did not seem informed and up-to-date about the care you got? (Yes)
 In the past 2 years, have you experienced the following: the specialist did not have basic medical information or test results from your regular doctor about the reason for your visit? (Yes)
 Thinking about the past 2 years, when receiving care for a medical problem, was there ever a time when test results or medical records were not available at the time of your scheduled medical care appointment? (Yes)
 Thinking about the past 2 years, when receiving care for a medical problem, was there ever a time when you received conflicting information from different doctors or healthcare professionals? (Yes)
 When you left the hospital, did the hospital make arrangements or make sure you had follow-up care with a doctor or other healthcare professional? (No)
 Thinking about the last time you were in the hospital, were you involved as much as you wanted in decisions about your care and treatment? (No)
 When you left the hospital, did someone discuss with you the purpose of taking each of your medications? (No)
 When you left the hospital, did you receive written information on what to do when you returned home and what symptoms to watch for? (No)
 When you need care or treatment, how often does your regular GP or medical staff you see involve you as much as you want to be in decisions about your care and treatment? (Rarely or never)
 When you need care or treatment, how often does your regular GP or medical staff you see reexplain things in a way that is easy to understand? (Sometimes, rarely or never)
 When you need care or treatment, how often does your regular GP or medical staff you see know important information about your medical history? (Sometimes, rarely or never)
 When you need care or treatment, how often does your regular GP or medical staff you see spend enough time with you? (Sometimes, rarely or never)