PROFESSIONAL SERVICES

Trajectories: the interplay between mental health and housing pathways

A short summary of the evidence

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FOR

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1   Introduction

Trajectories: the interplay between mental health and housing pathways (Trajectories) is a national study being undertaken by Mind Australia and the Australian Housing and Urban Research Institute (AHURI). Trajectories aims to develop a clearer understanding of the housing and mental health pathways of people with lived experience of mental ill-health. It aims to identify failure points in the housing and mental health systems—failure points represent missed opportunities for early intervention and are potential key points for system improvement.

Trajectories research is underpinned by a comprehensive review of the national and international literature on housing, homelessness and mental health that includes analysis of:

→ Australian and international mental health and housing programs and models, focusing on interventions that lead to sustainable tenancies for people with mental health issues

→ policy levers and system level drivers relating to housing, mental health and homelessness in Australia

→ individual and structural factors contributing to, and the prevalence of, mental ill-health, homelessness, and housing precariousness

→ datasets capturing mental health mental health prevalence, service use, and needs in Australia in relation to housing.

Key findings from the full report are:

→ housing, homelessness and mental health are separate policy systems with little integration

→ failure points in the housing, homelessness and mental health systems and opportunities for early intervention are not well understood

→ mental ill-health and homelessness are strongly associated

→ housing affordability, social housing shortages and lack of supported housing are key issues for people with lived experience of mental ill-health

→ housing choice and control over housing and support have been shown to be important contributors to wellbeing and quality of life for people with lived experience of mental ill-health

→ the capacity of the mental health service system does not meet need

→ integrated programs addressing housing and mental health are effective but do not meet demand for these services

→ discharge from hospitals and mental health services is a risk factor for homelessness.

Trajectories is a companion piece to the recent AHURI research commissioned by the National Mental Health Commission (NMHC), examining the issues and policy levers required to provide more and better housing for people with lived experience of mental ill-health (Brackertz et al. 2018). Trajectories extends the NMHC work through an empirical contribution that includes data analysis, community consultations with mental health consumers and families, and service provider workshops.

1.1   Research rationale

The evidence clearly identifies a complex bi-directional relationship between mental health, housing and homelessness. However, our understanding remains incomplete in how major life events and a person's circumstances (e.g. mental health status, employment, income, mental health and housing system engagement, support from family and carers) interact and affect their long-term trajectories for housing and mental health and their ability to access the services and supports they require.

Our understanding of the risk and protective factors for people who experience moderate to severe mental ill-health, but who remain housed, remains underdeveloped. Nor are we clear on the factors that enable or prevent people from accessing the services and supports they need and the effectiveness of these services and supports. It is also not clear how the housing and mental health systems interact, what the failure points are and what the opportunities for early intervention are. A lack of research on the role of carers and families and qualitative research from the point of view of people with mental ill-health is a critical knowledge gap.

To address these issues, we need to better understand people's transitions through the housing and mental health systems including their housing histories and the range of factors that have influenced their aspirations for and choices of housing.

1.2   Housing and mental health systems overview

1.2.1   Housing system

The long term structural trends in the Australian housing system—falling rates of home ownership, an increase in private rental, declining stocks of social housing and lack of affordable housing for low-income households—are key factors in the housing issues facing those with mental ill-health. While private rental housing is the most common form of accommodation for people with mental ill-health, social housing and supported accommodation are also important forms of tenure, but are highly rationed. People with mental ill-health face challenges in accessing and sustaining each of these types of accommodation.

1.2.2   Mental health system

Australia's mental health system has several components, including the clinical mental health sector, as well as community mental health services focusing on psychosocial wellbeing and participation in home and community life (DHHS 2015). In addition to specialised mental health services, treatment and care is delivered by GPs, psychiatrists and allied health practitioners through the Medicare system.

The NDIS is reshaping Australia's mental health service provision landscape, particularly the role of the community mental health sector. The NDIS is intended to provide resources for mental health support to people with lived experience of mental ill-health who are considered to have significant and enduring disability (Productivity Commission 2011). The mental health component of the NDIS predominately consists of individualised funding for disability supports to assist persons with psychosocial disability. The clinical mental health system is functionally and financially separate from the NDIS.

1.2.3   Unpaid support provided by families and carers

In addition to formal, funded mental health services, families and carers form a significant, though largely unacknowledged, component of the mental health system.

They provide a large amount of emotional and practical support to people with mental ill-health that would otherwise have to be paid for by the government, yet they receive little government support themselves.

A 2017 study by the University of Queensland (UQ) and commissioned by Mind Australia developed a detailed provide of mental health carers in Australia and estimated the replacement cost of informal care (Diminic et al. 2017). The study found that mental health carers provide a substantial amount of unpaid support to care recipients. The study estimated that in 2015, there were approximately 54,000 primary mental health carers and 186,000 other mental health carers in Australia; nearly half of these carers are aged 45–64 years. Data collected through the UQ Carer Survey 2016 showed that primary mental health carers provided on average 36.2 hours of support per week to care recipients. The National Survey of Mental Health and Wellbeing 2007 recorded data from a broader sample of carers and showed that other mental health carers provided on average 11.0 hours of support per week. In aggregate, this support is estimated to have a value of $14.3 billion and be equivalent to 173,198 full-time equivalent formal support workers (Diminic et al. 2017; Hielscher et al. 2018).

The study found that many carers miss out on the support and services they need. Drawing on results from the SDAC 2012, the study found that most primary mental health carers were not receiving any support (only 24% received Carer Payment; 35% received assistance to care for their main recipient of care; 35% of primary mental health carers did not know what services were available for carers). Around half of primary mental health carers reported unmet support needs, which included a lack of information about mental illness, caring and available services; the need for more assistance, such as respite care and emotional support; available services not always meeting the needs of mental health carers; gaps in mental health services for care recipients placing additional burden on carers; poor recognition of carers and exclusion from treatment planning by mental health professionals; and difficulties accessing sufficient financial support (Diminic et al. 2017).

The predominant form of mental health support provided by family and carers is emotional support (68% of support provided), which includes tasks such as emotional support and encouragement, supervising and monitoring, and responding to behaviour.

Support for practical tasks, such as transport, literacy and communication, and health care coordination comprises 29 per cent of family and carer mental health support, while support in activities of daily living comprises 3 per cent (Diminic et al. 2017). In comparison to physical disability carers, mental health carers provide a much larger share of emotional support to care recipients.

2   Definition of mental health

The terms mental ill-health, mental wellbeing and mental illness are used inconsistently in the literature and in common usage, and often the meanings of these terms overlap.

This report uses the term mental illness to refer to people with one or more serious mental disorders. Mental ill-health is used as an umbrella term that captures the entire range of mental health issues, and comprises:

→ 'low prevalence' conditions including schizophrenia and other psychoses, schizoaffective disorders, bipolar disorder and major depression affecting less than three per cent of the adult population; and

→ 'high prevalence' conditions including depression and/or anxiety and affective disorders. These are the most common mental health disorders and affect approximately 14 per cent and 6 per cent, of adults each year respectively, with about a quarter having more than one disorder. 'These disorders include diverse conditions (e.g. post-traumatic stress disorder, obsessive compulsive disorder, depression, bipolar disorder) that have different treatment requirements and outcomes.' (Commonwealth of Australia 2009: 16).

Psychosocial disability refers to the functional restriction associated with a mental health disorder on people's capacity to manage the social and emotional areas of their lives.

3   Key statistics

Key statistics relating to mental health, the housing system and homelessness in Australia:

→ An estimated 45 per cent of Australians aged 16–85 years will experience a high prevalence mental health disorder, such as depression, anxiety, or a substance use disorder in their lifetime (ABS 2008).

→ An estimated 2–3 per cent of the population aged 16–85 years have a severe mental health disorder, 4–6 per cent a moderate mental health disorder, and 9–12 per cent a mild mental health disorder (Department of Health and Ageing 2013).

→ In 2015, an estimated 3,839,907 people were diagnosed with mental illness (16.2% of the total population). This group is estimated to comprise 685,719 persons with severe mental illness (2.9% of the total population), 1,052,968 persons with moderate mental illness (4.5% of the total population), and 2,085,829 persons with mild mental illness (8.8% of the total population) (David McGrath Consulting 2017).

→ In 2015, there were approximately 502,169 persons with a severe mental illness who are in the National Disability Insurance Scheme (NDIS) cohort age range of 18–64, including 91,916 persons with a severe and complex mental disorder. It is anticipated that this latter group is the cohort who will be eligible for the NDIS (DSS 2017). In addition, approximately 122,784 people aged under 18 have severe mental illness (David McGrath Consulting 2017).

→ Indigenous people experience mental illness at a rate higher than their non-Indigenous counterparts, and have a mental health-related hospitalisation rate without specialised psychiatric care more than three times that of other Australians (12.0 and 3.8 per 1,000 persons respectively). Mental health-related hospitalisations with specialised care are double the rate of other Australians (12.8 and 6.5 per 1,000 population respectively) (AIHW 2016: 12).

In 2015:

→ approximately 470,767 (18–64 years) people required a severe mental illness care package

→ a total of 289,249 (12–64 years) people required some form of psychosocial individual or group community support and rehabilitation

→ A significant number of families and carers require support, including:

- approximately 63,274 families and carers of the 470,767 adults aged 18–64 years with a severe mental illness, and

- approximately 81,136 families and carers of people aged under 18 with severe mental illness (David McGrath Consulting 2017).

4 Links between housing, homelessness and mental health

Persons experiencing both homelessness and mental ill-health represent a hard to reach group for service providers (Brackertz and Winter 2016). Analysis of census and 500 Lives 500 Homes Registry Fortnight homelessness data in Brisbane LGA found that typically there are four categories of persons with severe or chronic mental illness who are homeless (Westoby 2016):

1 **People who are homeless and do not receive any services to support their mental health issues.** Approximately 77 per cent of 190 rough sleepers surveyed had some form of mental health or substance addiction issue while only 49 per cent had spoken to a mental health professional in the past six months, either voluntarily or involuntarily (Westoby 2016). The significant share of rough sleepers with a mental health issue who are not receiving treatment is a very high-risk cohort.

2 **People who are attended to and hospitalised by medical practitioners but who are not adequately supported when released back into the community.** Within a week of hospital discharge, connections to community mental health vary from 72 per cent of all mental health related hospital discharges in Victoria to 48 per cent in NSW, and 54 per cent nationally

3 **People who are treated in a psychiatric facility in hospital and remain hospitalised without a discharge or exit strategy back into the community.** There is a shortage of available housing stock for people with mental ill-health in Australia as long public housing waitlists and private rental affordability issues have contributed to an overall scarcity of appropriate housing for this cohort.

4 **People who experience primary or secondary homelessness in substandard and insecure tenures who struggle to manage their mental health.** This group manage their mental ill-health either through hospitalisations or community mental health clinics and their homelessness perpetuates their mental health issues.

Greater choice and control over housing and support contributes to wellbeing and quality of life for people with mental ill-health (Nelson et al. 2007). Autonomy with respect to housing aspirations, and housing which fosters meaningful relationships in the home and the community, are associated with improved wellbeing and quality of life, and decreased symptomatology and service use (Aubry et al. 2016; Nelson et al. 2007).

Tenants with mental ill-health benefit from quality housing through reduced mental health care costs, and greater wellbeing and residential stability (Harkness et al. 2004; Nelson et al. 2007). Housing quality commonly refers to the level of building amenity and aesthetic. Indicators of higher quality housing are homes contained in newer, well-maintained buildings with a rich variety of features.

Neighbourhood amenity is a factor in reducing mental health care costs among people with mental ill-health. Persons with mental ill-health who move to neighbourhoods with fewer problems, such as crime and dilapidated property facades or outward signs of physical deterioration, are more likely to reduce their mental health care service use (Harkness et al. 2004).

Living in unaffordable housing is detrimental to mental health. This finding is limited to individuals living in households in the bottom 40 per cent of income distribution (Bentley et al. 2011).

Psychosocial status refers to a person's capacity to effectively participate in the community. A study of social renters in Glasgow showed that the housing quality factors that have the greatest effect on psychosocial status relate to the interior of the home and perceived security in the home (Clark and Kearns 2012).

While housing can affect mental health, a person's mental ill-health can have a negative impact on their housing situation. Behaviours often associated with mental ill-health, such as anti-social behaviour, delusional thinking and the inability to prioritise finances, may be detrimental to a person's housing situation. Behaviours associated with mental illness may also trigger anti-social behaviour management policies for people living in public housing, sometimes causing eviction.

Social isolation as a result of mental ill-health can further exacerbate housing crises by limiting access to emotional and financial support (O'Brien et al. 2002). Poor physical health is a common symptom of mental ill-health, and can limit a tenant's capacity to maintain a healthy living environment in the home.

5   Lived experience of housing and mental ill-health

Several recent studies have explored the relationship between mental health and housing.

Gibson et al. (2011) studied public housing tenants in Scotland and recorded changes in wellbeing, mood, and psychosocial behaviour in response to new and improved living conditions over three years. Participants described how housing features contributed to opportunities for social participation, neighbourly interaction, a sense of autonomy and control, and consequent improvements in mental health. It was determined that improvements to housing design (such as private entrances and gardens) and street layout can change residents' psychosocial processes with positive flow-on effects for mental health and quality of life (Gibson et al. 2011).

Anglicare Tasmania explored people's experiences of homelessness and mental health from a sample of 20 mental health and homelessness service consumers. Participants commentated that there are many supports that are required but not currently available to them. Participants explained the prohibitive cost and problems associated with accessing housing, among other personal and system-level reflection (Pryor 2011).

Adverse early life experiences, such as poverty, traumatic events, and domestic/family violence, were frequently cited by interviewees as reasons for having developed mental ill-health and entering homelessness as an adult. Structural factors, including the high cost of and difficulty accessing housing, often combined with individual factors such as personal drug abuse and mental ill-health contributed to many interviewees becoming homeless. Participation in the community delivered improvements to mental health and a greater ability to sustain their housing for many. Interviewees believed that mental health and homelessness services sectors are currently not integrated well enough and need to begin working together to deliver a better service response (Pryor 2011).

Moxham (2016) conducted semi-structured interviews with 15 people with a diagnosed mental illness living in a Queensland regional city. The interviewees explored their relationship to their living environment, including sharing experiences of stigma from neighbours and the lack of housing choice available to them. Interviewees predominantly expressed feelings of a lack of control and autonomy, most commonly in relation to rules set by family and other home occupants (Moxham 2016).

6 Policy landscape and system integration

Mental health policies in Australia are guided by a national 10-year strategy, *The Roadmap for National Mental Health Reform 2012–2022* (COAG 2012), and *The Fifth National Mental Health and Suicide Prevention Plan* (Department of Health 2017), as well more detailed plans and strategies at state and territory level. In practice, the Fifth National Plan is treated as the major guiding document at the present time.

Analysis of state, territory and Commonwealth housing, homelessness and mental health policies shows they are essentially separate systems with little integration. This contributes to poor housing and health outcomes for people with lived experience of mental ill-health.

6.1 Service gaps

Several service gaps contribute to inadequate housing and exacerbate mental health issues for people with lived experience of mental ill-health.

→ **Location**. Programs which assist people with both appropriate housing and mental health support are not available in most jurisdictions and are especially difficult to access in regional and rural areas.

→ **Housing supply gaps**. An inadequate supply of affordable and appropriate housing puts people at risk of homelessness and deterioration of mental health. Some people exiting residential mental health programs or hospitals cannot access appropriate and affordable housing in a timely way. This can result in higher costs for hospitals unable to discharge and can lead to homelessness for people who are discharged without viable housing options.

→ **Discharge planning**. Some jurisdictions have protocols for post-discharge arrangements from psychiatric facilities, however similar protocols for mental health and tenancy support for people exiting other institutional care settings are underdeveloped.

→ **Insufficient integration**. Some housing programs are not integrated with mental health services. Agreements or protocols between mental health and housing departments are often limited in scope and focussed on things like anti-social behaviour or sharing of client information.

→ **Eligibility and capacity**. While a number of effective programs exist, places in these programs are rationed and many who require services miss out. Some programs limit eligibility to people with lived experience of mental illness, noting severity or duration and some housing is demarcated for particular usage, making it off limits to potentially suitable people.

→ **Barriers to collaboration.** Privacy legislation can present a barrier to collaboration and service integration. For example, where arrangements to facilitate communication or team work between housing and mental health service providers are not in place, privacy protocols can mean that housing officers cannot effectively discuss consumers and refer them to appropriate supports.

→ **Information collection and sharing**. Many jurisdictions do not share information about consumers across agencies.

6.2   Views of mental health system workforce and consumers

In 2014, the National Mental Health Commission (NMHC) invited submissions from service providers and people with lived experience to canvass their views on the mental health system, with particular system gaps being mentioned regularly.

Service provision was perceived to be lacking in certain geographical regions, including regional, rural and remote areas. Submissions expressed concern there was a lack of services that cater to the needs of particular life stages, life experiences and backgrounds. There were also concerns about the general availability of treatments specific to certain mental health diagnoses.

System gaps were perceived to have arisen due to a number of factors, including having a reactionary mental health system that does not adequately promote preventative support; a focus on time-limited, fee paying support rather than ongoing support that is not contingent on ability to pay; expertise and workforce gaps; and a lack of flexibility in the system to consider the individual economic, social, and health circumstances of people.

The mental health system was perceived as focussing on providing short term support, with a cyclical effect on consumers. Inpatient treatment and private psychology were both seen to be delivering services that did not provide continuity and often ended abruptly, leading to premature discharge from care and a lack of follow-up support.

A general lack of integration between support sectors was perceived to contribute to a cycle of crisis, inpatient treatment, and discharge. A commonly described situation was when inpatients are discharged to adverse economic, social, or housing circumstances, which have failed to be communicated between support providers, leading to poorly integrated supports and a return to crisis.

Finally, a consumer's family circumstances are often not considered for the purpose of whole-of-family therapeutic interventions. A person's home environment is frequently an influence on, and influenced by their mental health condition—particularly in regards to the relationship between siblings, and parents and children.

Many of the perceived mental health system issues cited in the submissions for the NMHC align with the findings of this synthesis, including a lack of services in rural and remote areas, poor communication, collaboration and integration between services and sectors, and unsatisfactory hospital discharge processes.

6.3   Views of housing system workforce

In 2018, AHURI undertook a series of workshops with social housing officers in Victoria to better understand the nature of their roles as a 'social landlord'. Housing officers said that a significant component of their roles involved understanding the complex needs of their tenants, making appropriate referrals and assisting where no services are available, and educating them with making rent payments. The role of the social landlord now has housing officers dealing with tenant mental health, finance, and anti-social behaviour issues to the point of being quasi-case managers in some cases. However, workshop participants all agreed that this part of their role is not adequately reflected in their KPIs, training, or allocated work schedule (Fotheringham et al. 2018).

Workshop participants estimated that 60 per cent of their time is spent with this particular high needs cohort. In many cases, housing officers are the only point of contact with the outside world—placing added welfare responsibility on staff (Fotheringham et al. 2018).

6.4   Workforce training

Research into qualification attainment among homelessness workers shows that the majority of workers have less than five years' experience in the industry, suggesting that high turnover exists in the workforce. While 40 per cent of homelessness workers have university degrees, there is a lack of relevant course work available to adequately prepare homelessness workers for the job (Martin et al. 2012). A number of specialist areas of homelessness service provision are inadequately covered by education and training, including trauma, private rental brokerage, children's homelessness issues, cultural competency, clients with complex needs, hoarding and squalor, and transgender issues (Spinney 2018).

The Victorian Royal Commission on Family Violence recommendations include a requirement for mandatory qualifications for specialist family violence practitioners. This will improve the capability and preparedness of the homelessness workforce, as many family violence practitioners work in homelessness service providers (Spinney 2018).

7 Data on mental health prevalence in relation to housing

A major component of the Trajectories project has been to assess the utility of existing Australian data sets to identify which could be used to analyse how life events affect people's housing and mental health status over time. This is one of the key ways in which Trajectories extends the work undertaken for the 2018 NMHC research.

The key criterion for including Australian datasets in Trajectories is the dataset's ability to facilitate longitudinal analysis of the factors that affect the relationship between housing, homelessness and mental health, and thereby shape people's journeys through the housing and mental health systems.

Datasets that enable estimation of the prevalence of mental ill-health and service use (of both, mental health and housing and homelessness services) are of secondary interest.

Trajectories identified two longitudinal data sets for analysis, namely Household Income and Labour Dynamics in Australia (HILDA) and Journeys Home. These datasets include two mental health assessment tools (Kessler psychological distress scale and Medical Outcomes Study Short Form (SF36) / Mental Health Inventory (MHI5, which measure respondents mental wellbeing.

7.1 Longitudinal data sets

Longitudinal data tracks the same individuals over time. It can be used to investigate individual pathways, can show how different people respond to different circumstances, and how their responses shape outcomes over the short and long term.

Longitudinal data can help us understand how events affect different areas of life and how they interact over time, showing whether circumstances are temporary, persistent or relapsing, and what factors influence transition and persistence.

7.1.1 Household, Income and Labour Dynamics in Australia (HILDA)

HILDA is a household-based panel study that collects information about economic and personal well-being, labour market dynamics and family life. Data has been collected annually since 2001 from over 17,000 participants.

The main analysis variable is the five-item Mental Health Inventory (MHI5), which is collected in all waves of HILDA.

In addition, measures which identify the following have been included:

→ psychological distress using the Kessler 6 (K6) item scale1 (biennial from wave 7), which has been shown to be a good predictor of serious mental illness (Kessler et al. 2003)

→ diagnosed conditions (only available in waves 7 and 9) as to whether individuals have ever been diagnosed with depression or anxiety by a health professional

→ long term health condition/disability, type of long term health condition, any mental illness which requires help or supervision, and the year in which that condition first developed (wave 3 onward)

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[1] The 10 item K10 is available in HILDA but Trajectories analysis will use the K6 to ensure consistency and comparability with the JH analysis, which only captures the 6 items.

→ the value of life satisfaction as a subjective measure of general wellbeing, which is available in all waves.

The only information in HILDA that can be used to examine service usage is a variable capturing whether individuals have seen a mental health professional, such as a psychiatrist or psychologist during the last 12 months. However, this information is only available in waves 9 and 13. Also, HILDA may be better at identifying individuals experiencing depression and/or anxiety than those with other mental health disorders.

Housing tenure is a key outcome of interest (social housing, private rental, home owner with mortgage, outright home owner). Other measures of housing instability that have been analysed include the number of times the individual/household has moved in the last year; housing stress (missing a mortgage or rent payment and/or utility payment); and potentially other indicators of financial stress (e.g. missing meals).

7.2   Journeys Home

Journeys Home: Longitudinal Study of Factors Affecting Housing Stability (JH) is a national survey of persons homeless or at high-risk of becoming homeless in Australia. The study followed 1,700 persons who were either homeless or identified as housing insecure for 2.5 years. JH participants were selected using Centrelink's Homelessness Indicator.

The main indicators of mental illness in JH analysed for Trajectories are the K6 scale of psychological distress and whether individuals have been diagnosed with one of five key mental illnesses (bipolar affective disorder, schizophrenia, depression, post-traumatic stress disorder or an anxiety disorder). Analysis also investigates the value of examining 'life satisfaction' as a subjective measure of general wellbeing.

Two indicators of mental health service use are utilised:

→ whether individuals visited a doctor within the last 6 months for mental health or emotional reasons

→ whether individuals visited a mental health professional in the last 6 months.

The first provides a measure of attempts to gain general health support for a mental health problem whereas the second more specifically captures usage of specific mental health services.

Housing tenure will be a key outcome of interest (homeless, social housing, private rental, home owner with mortgage, outright home owner). Entries into homelessness will be more closely investigated using other measures of housing instability, e.g. the number of times the individual has moved in the last 6 months or a measure of housing stress.

7.3   Other longitudinal data sets

Three other longitudinal data sets capture varying forms of information that could be analysed in relation to housing and mental health, however the detail captured is not detailed enough and they have therefore been excluded from detailed analysis for Trajectories. These data sets are:

→ Longitudinal Survey of Indigenous Children (LSIC) includes general information on the mental health of children and their carers, but does not use diagnostic tools to identify these

→ Longitudinal Survey of Australian Children (LSAC), also known as *Growing up in Australia*, examines social and cultural environment impacts on child development in Australia. While LSAC measures parental mental health using the K6 score, the study was not chosen for further analysis for Trajectories, as child mental health is not formally measured

→ The Longitudinal Study of Australian Youth (LSAY) follows Australian young people aged 15–25 years in relation to education, employment, social background and other life areas. LSAY was excluded from analysis for Trajectories as it offers insufficiently detailed information on housing and mental health.

7.4 Cross sectional datasets

Cross-sectional data is excellent for describing the extent of a problem; e.g. identifying or estimating the number of people in the population with particular characteristics (e.g. housing or mental health status). However, cross-sectional data has limited utility in helping us understand why certain problems occur, what can help and what the consequences of the problem are. The following data sets were examined and excluded from the Trajectories study:

→ The Specialist Homelessness Services Collection (SHSC) is a national data set, held by the Australian Institute of Health and Welfare (AIHW) that includes information on all clients of government funded specialist homelessness services (SHS). SHSC data collection is mandatory.; Analysis of SHSC data using client identifiers and/or data linkage is currently beyond the scope of Trajectories, though this may be explored at a later stage.

→ The Specialist Homelessness Information Platform (SHIP) is a client management interface used by many, though not all, SHS agencies. Analysis of SHIP data was assessed as impractical and lacking the accuracy required for Trajectories.

→ The Survey of Disability, Ageing and Carers (SDAC) is a cross-sectional data set that estimates the prevalence of disability in Australia, and is conducted by the ABS approximately every five years.

7.4.1 Survey of Disability, Ageing and Carers (SDAC)

The survey draws information from approximately 63,500 people from over 25,500 private dwellings, and an additional 11,700 people from 1,000 establishments.

Whilst analysis of SDAC data may provide useful contextual insights for Trajectories, the fact that it is cross-sectional limits its utility in identifying people's pathways through the housing and mental health systems. SDAC was therefore excluded from analysis for Trajectories.

7.4.2 Survey of High Impact Psychosis

The 2010 Survey of High Impact Psychosis collected national prevalence data on psychotic mental illness from 1,825 people across Australia. The survey asked questions relating to factors influencing the daily lives of this cohort, including housing factors.

Analysis of the data was excluded from Trajectories, as the data is cross sectional, and therefore provides limited opportunities to investigate people's pathways through the housing and homelessness systems.

7.4.3 Australian Burden of Disease Study (ABDS)

The 2011 Australian Burden of Disease Study (ABDS) provides estimates for approximately 200 diseases and injuries. The study quantifies the gap between a population's actual health and an ideal level of health in the given year.

The ABDS study has been used to provide prevalence estimates on mental ill-health for Trajectories, but has limited utility, as it does not collect data on housing.

7.4.4 National Mental Health Planning Framework (NMHSPF)

The National Mental Health Planning Framework (NMHSPF) supports planning of mental health services in Australia. It is informed by modelling estimating the prevalence of mental illness and demand for mental health services in Australia, by a range of demographic factors and service types. Estimates are based on three categories of mental illness severity: mild, moderate or severe.

A limitation of the NMHSPF data is that it does not stratify estimated mental ill-health prevalence according to low and high prevalence mental illness definitions.

Data from the NMHSPF informs prevalence estimates for Trajectories. However, as it does not measure housing status and as the method of estimation is not public, the results need to be treated with caution.

7.5 Mental health assessment tools

7.5.1 Camberwell Assessment of Need Short Appraisal Schedule (CANSAS)

The Camberwell Assessment of Need Short Appraisal Schedule (CANSAS) is a tool for the comprehensive assessment of the health and social needs of people with severe mental health problems. It can be used to assess met and unmet needs and monitor change of this over time. The tool captures a participant's current situation by recording outcomes during the past one month in 22 domains of life, which leads to a snapshot of the current situation, including accommodation, food, self-care, daytime activities, psychotic symptoms, childcare, money, psychological distress, physical health and relationships.

CANSAS does not describe what people's current housing and other situation is, but only whether that situation meets need. This means that CANSAS has limited utility for Trajectories and was consequently not selected.

7.5.2 Health of the Nation Outcome Scales (HoNOS)

The Health of the Nation Outcome Scales (HoNOS) is a clinician rated instrument for persons 18–64 years with severe mental illness. The tool comprises 12 scales covering behaviour, impairment, symptoms and social functioning.

HoNOS data is collected from all public mental health patients upon admission, review and discharge. In the context of Trajectories, HoNOS is of limited utility as it relies on clinician's assessment of the situation and does not include detailed information on the nature of the housing or mental health problem. Furthermore, HoNOS data is not longitudinal, and therefore cannot be used to track individuals' pathways through the housing and mental health systems. Therefore, HoNOS was not selected for further analysis for Trajectories at this stage.

7.5.3   Kessler 10 (K10) and Kessler 6 (K6)

The Kessler psychological distress scale is a 10-item measure of non-specific psychological distress. The tool has been shown to be extremely effective at screening for serious mental disorders (Kessler et al. 2003).

K10 asks respondents to rate 10 questions on a scale from 1 to 5 (1. none of the time, 2. a little of the time, 3. some of the time, 4. most of the time, 5. all of the time).

In the last four weeks/30 days, about how often did you feel:

1   tired out for no good reasons?

2   nervous?

3   so nervous that nothing could calm you down?

4   hopeless?

5   restless or fidgety?

6   so restless that you could not sit still?

7   depressed?

8   that everything was an effort?

9   so sad that nothing could cheer you up?

10 worthless?

K6 is a truncated version of the K10, in which questions 1, 3, 6, and 9 are omitted.

A number of key datasets use the K10 in Australia. HILDA introduced the K10 in Wave 7 in the self completion questionnaire. Since then it has been used biennially in waves 7, 9, 11, 13, 15, 17. JH administered the K6 in each wave.

7.5.4   Medical Outcomes Study Short Form (SF36) and Mental Health Inventory (MHI5)

The Medical Outcomes Study Short Form (SF36) is a 36-item scale used to assess health status and quality of life. The 36 items can be combined to assess eight health concepts:

→   limitations in physical activities because of health problems

→   limitations in social activities because of physical or emotional problems

→   limitations in usual role activities because of physical health problems

→   bodily pain

→   general mental health (psychological distress and well-being)

→   limitations in usual role activities because of emotional problems

→   vitality (energy and fatigue); and

→   general health perceptions.

The SF 36 is administered in every wave of HILDA.

The five-item Mental Health Inventory (MHI5) is a subset within the SF36 and is therefore also included in every HILDA wave. The five questions used for constructing the mental health index are:

How often in the past 4 weeks have you:

1 been a nervous person

2 felt so down in the dumps nothing could cheer you up

3 felt calm and peaceful

4 felt down

5 been a happy person.

This measure of mental health has been shown to be associated with symptoms of depression and anxiety (Berwick et al. 1991) with scores below 52 considered to be predictive of episodes of depression (Silveira et al. 2005).

7.6 Summary of findings from previous studies on housing, homelessness and mental health using HILDA and JH data

7.6.1 Summary of previous findings from Journeys Home

JH provides demographic, health, service use and a range of other housing related information relating on people who are homeless or at-risk of homelessness. This data has underpinned analysis in several studies investigating mental health and housing, including six JH technical publications relating to each wave of JH data.

Studies of JH data show a complex relationship between mental ill-health, housing and homelessness. Among JH respondents, mental health diagnosis and psychological distress was found to be highest in people experiencing chronic instability and homelessness (Johnson 2014). People with mental illness who are experiencing homelessness are much more likely to exit homelessness within six months (possibly to due higher rates of service use) compared to the broader JH homeless population (Bevitt et al 2015). Gender also play a role in how people experience psychological stress relating to housing, with females able to adapt more quickly to changes in housing situation than males (Scutella et al. 2014).

The JH sample was selected using Centrelink's Homelessness Indicator and comprises recipients of an income support payment that had been flagged by Centrelink as either 'homeless' or 'at-risk of homelessness' (Scutella et al. 2012). Consequently, the JH sample differs to that of the general population.

Compared to the general population, JH respondents are more likely to be male (55% vs 49%), under 35 years old (60% vs 35%), Indigenous (20% vs 3%), un-married or in a de facto relationship (83% vs 36%), with no dependent children (80% vs 76%). They are also much more likely to have a mental illness, a daily smoking habit, participate in risky drinking and use illicit or injected drugs than the general population (Scutella et al. 2012).

Johnson et al. (2014) used cluster analysis to develop and test a typology of housing instability among JH participants. They identified six distinct groups:

1 stable housed (n=518)

2 stable homeless, with friends or family (n=192)

3 stable homeless, other (n=152)

4 moderate instability, homeless (n=225)

5 chronic instability, homeless (n=156)

6 undetermined (n=82).

Analysis showed that the greater the level of housing instability reported, the poorer respondents' circumstances were across a range of measures (Johnson et al. 2014):

→ mental health diagnosis was highest in group five (78%) and lowest in group two (61%)

→ serious psychological distress was low amongst all groups but highest in those living in more unstable arrangements, such as group five (62%)

→ persons in chronically unstable housing arrangements reported weekly illicit drug use at five times the rate of those who are housed, and triple those in group four.

Data presented in the fourth JH report reveal the study's first longitudinal findings in relation to mental health and homelessness. In regards to mental illness diagnosis, large numbers of respondents at each wave either relapsed or had new additional diagnoses, which was associated with higher incidence of homelessness (Scutella et al. 2014). Seeking help for mental health related issues from a mental health or medical professional was not found to be positively associated with a reduction in homelessness. Seeing a mental health professional or a GP did not prevent homelessness for people with a first-time diagnosis. In addition, only few respondents (21%) who needed help with mental health related issues saw a mental health professional at all. This could be because people may receive a diagnosis from a GP or a doctor in a hospital, but then do not make contact with specialist mental health services (Scutella et al. 2014:33).

A key finding from the JH study is that there are two distinct pathways for homelessness and mental illness:

→ those who are homeless before they develop a mental illness, and

→ those whose mental illness is present prior to becoming homeless (Scutella et al. 2014).

In the former group, mental illness onset is at a much older age than the latter group and that of the general population, and on average occurs nine years after first experiencing homelessness. This supports the idea that environmental exposure to stress can lead to mental illness. The latter group tended to develop mental illness in adolescence and early adulthood. Then a long period of time elapsed (eight years on average) before the individual first experienced homelessness (Scutella et al. 2014).

JH uses the Kessler 6-item scale (K6) to capture respondents' psychological distress levels at each survey wave. K6 data indicates that homeless respondents adapt to their environment after a period of six months. Lower levels of distress were recorded for females who had been homeless for between six months to two years, while females who had been homeless for over two years recorded distress levels similar to those who were stably housed. However, males only saw a relationship between homelessness and psychological distress after six years (Scutella et al. 2014).

The sixth report on JH data shows that the relationship between homelessness and current substance use is stronger than for past substance use. The rate of homelessness is significantly higher for those who currently drink at risky levels or have used cannabis in the past six months than for those who do not. However, past substance use was not significantly associated with homelessness (Bevitt et al. 2015).

While homeless rates for respondents recently diagnosed with a mental illness were high, this group is much more likely to exit homelessness within six months. This is most likely due to this group receiving priority specialist mental health services and having more regular contact with GPs and other health practitioners. This might also be

the case for respondents with schizophrenia or affective bipolar disorder, who spend less time in primary homelessness than other respondents but cycle between homelessness and being housed more regularly (Bevitt et al. 2015).

7.6.2   Summary of previous findings from HILDA

Several previous studies have used HILDA data to interrogate the relationship between mental health and a range of housing related factors, such as tenure, housing affordability, employment, disability, and area effects. This section summarises the findings of these studies.

Key findings from these studies are that there is no evidence to support a relationship between tenure and mental health (Baker et al. 2013) a person's housing situation can have a moderating effect on their mental ill-health in the presence of other negative factors, such as unemployment and disability acquisition. Private renters and people experiencing housing unaffordability are generally most at risk of mental ill-health under adverse circumstances (Bentley et al 2016b; Bentley et al 2011).

Housing affordability correlates with mental health: housing affordability stress leads to deterioration in mental health for low income renters (Baker et al. 2011); there exists a bi-directional relationship between housing affordability and health, especially mental health (Baker et al. 2014); persistent employment insecurity leading to housing affordability stress can contribute to a decline in mental health (Bentley et al. 2016b).

Area effects, such as geographic location, have not been shown to correlate with mental health, rather individual risk factors are a predictor of mental health (Butterworth et al. 2006).

The mental health of people in all tenure types decreases upon disability acquisition, however the largest decrease in mental health are experienced by private renters (Kavanagh et al. 2016).

Housing affordability

Bentley et al. (2011) used HILDA data to investigate whether people experiencing housing affordability stress experienced a deterioration in their mental health over and above other forms of financial stress. People were considered to be in housing affordability stress when housing costs exceeded 30 per cent of their household income; the SF-36 Mental Component Summary was used to ascertain whether there was a deterioration in mental health. They found that entering unaffordable housing is detrimental to the mental health of individuals residing in low-to-moderate income households (bottom 40% of income earners) but found no evidence to support an association for higher income households. They concluded that interventions that can improve housing affordability for low income households (e.g. increase of household income, reduction in housing costs) are likely to be the most effective in reducing inequalities in mental health (Bentley et al. 2011).

Baker et al. (2014) used HILDA data to study the relationship between housing and health. They found that a bi-directional relationship exists between housing affordability and health, especially mental health, which suggests that health may influence affordable housing outcomes, while housing affordability may also predict health outcomes.

Housing affordability and tenure

Bentley et al. (2016a) used longitudinal data from HILDA and British Household Panel Survey to examine and compare relationships between housing affordability, tenure and mental health in the UK and Australia. UK studies have shown that renters report

poorer health than home owners, while the differences between tenures were due to the household characteristics of renters rather than a causal effect of tenure (Bentley et al. 2016a).

Bentley et al found that Australian private renters whose housing became unaffordable experienced a small but significant decline in mental health, while the same change in affordability for home purchasers did not, on average, alter their mental health (Bentley et al. 2016a). The reverse was found to be true for the UK (Bentley et al. 2016a). The authors speculate that more generous government support for UK private renters relative to Australian private renters may explain the difference in mental health sensitivity to housing affordability by tenure type (Bentley et al. 2016a).

Baker et al. (2013) used HILDA data to research the influence of housing tenure on mental health. Using the SF-36 Mental Component Summary to measure mental health, this study determined that the mental health score of individuals increased with income but that there was no evidence of a relationship between tenure and mental health, even when people changed residence. Poorer mental health among renters as compared to home owners is more a reflection of the demographic composition of cohorts rather than tenure type. While tenure and mental health do not appear to be linked, the authors state that tenure is likely to have other intrinsic benefits such as financial, educational, or ontological benefits (Baker et al. 2013).

Mason et al. (2013) examined the mediating effect of tenure on housing affordability and mental health using the SF-36 component of HILDA. The study showed that unaffordable housing affects the mental health status of renters and home purchasers differently. The study found a small but statistically significant difference in the mental health scores of private renters when their housing became unaffordable compared to when it was affordable (20% of one standard deviation lower). Home purchasers in contrast had the same scores regardless if the housing was affordable of unaffordable. Effect modification of the relationship between housing affordability and mental health by tenure revealed moderate evidence in support of the difference between private renters and home purchasers (Mason et al. 2013).

Employment security and housing affordabiltiy

Bentley et al. (2016b) investigated the effect of employment security and housing affordability on mental health (represented as the SF36 Mental Component Summary score). They found that households containing people who experience persistent employment insecurity are more likely to have a decline in mental health as a result of their housing becoming unaffordable compared to households containing people with secure employment (Bentley et al. 2016b).

Area effects and individual risk factors

Butterworth et al. 2006 examined whether area effects (e.g. geographic location) affect mental health using the variance of mental health scores, expressed through the SF36 at the individual, household, and area level. They found no significant correlation between area-level co-variates and the overall level of mental health at the area level. Rather individual level risk factors are most strongly and independently associated with mental health. Results show a modest level of variance in mental health scores at the area level, with a significant variance at the household level. Area effects that were observed are thought to reflect the clustering of individual-level risk factors (e.g. age, physical health, financial hardship). The results of this study contribute to the discourse on whether community-level or household-led interventions are the most appropriate strategy for addressing mental ill-health (Butterworth et al. 2006).

Housing tenure, affordability and disability acquisition

A study by Kavanagh et al. (2016) investigated whether housing tenure and affordability were effect modifiers of the relationship between disability acquisition and mental health. The study showed that middle and low income earners had larger mental health deterioration than high income earners after acquiring disabilities. The mental health of people in all tenure types decreased after disability acquisition, with the largest decrease in private rental housing tenants, where mental health is 2.8 points lower than those in home ownership.

Both mortgagors and private renters in unaffordable housing had the largest reductions in mental health after disability acquisition. Importantly, 7 per cent of individuals in the sample pool living in unaffordable housing at the time of acquisition were more likely to experience more severe mental health effects with potential consequences for ongoing workforce participation and health costs. Overall, the study's results show that an individual's housing characteristics before disability acquisition in adulthood may modify the effect of disability acquisition in adulthood (Kavanagh et al. 2016).

Social capital and mental health

Berry and Welsh (2009) examined the relationship between social capital and three aspects of health: mental, general and physical. Social capital is commonly defined using Putnam's description: 'a combination of patterns of community participation and social cohesion created by participation' (Berry and Welsh 2009: 589). Social capital is related to better general physical health and even more strongly to positive mental health.

Study respondents with poorer physical health had lower levels of mental health, but people within this group reported better mental health if they had higher levels of social capital. The study shows that women have higher levels of community participation and personal cohesion than men, generating greater social capital. However, women also reported poorer mental health than men, suggesting that the relationship between social capital and mental health may be complex. The authors speculate that social capital in women experiencing socio-economic disadvantage may involve unmanageable demands, rendering social capital a risk for mental ill-health among this cohort (Berry and Welsh 2009).

8   Conclusion and further work needed

The evidence review has shown that people experiencing mental ill-health face challenges in regard to accessing the supports and services they need to achieve and sustain the appropriate and affordable housing they need to enable them to manage and recover from their mental ill-health. Many of these challenges are systemic. The housing, homelessness and mental health systems are not well integrated and do not meet needs. This is compounded by housing affordability, social housing shortages and insufficient supported housing. Informal carers provide important services to people with mental ill-health but their contributions are not well recognised or supported.

Important research has been undertaken in relation to people who are homeless or precariously housed. However, our understanding of the risk and protective factors for people who experience moderate to severe mental ill-health, but who remain housed, is underdeveloped. Nor are we clear on the factors that enable or prevent people from accessing the services and supports they need and the effectiveness of these services and supports. It is also not clear how the housing and mental health systems interact, what the failure points are and what the opportunities for early intervention are. A lack of research on the role of carers and families and qualitative research from the point of view of people with mental ill-health is a critical knowledge gap.

To address these issues, we need to better understand people's transitions through the housing and mental health systems—their housing histories and the range of factors that have influenced their aspirations for and choices of housing.

This evidence review identified two longitudinal data sets (HILDA and Journeys Home) that can be used to investigate these questions. In addition to the analysis of these two data sets, Trajectories will conduct qualitative research with service providers in the housing and mental health systems, formal and informal carers and people who have lived experience of mental ill-health to discover how personal and systemic factors affect the housing trajectories of people with mental ill-health.

This is the next stage of Trajectories research and is currently underway.

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