



## JOURNEY TO SOCIAL INCLUSION

### **Chronic Homelessness in Melbourne: First-Year Outcomes of Journey to Social Inclusion Phase 2 Study Participants**

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## Chronic homelessness in Melbourne:

# The first year outcomes of Journey to Social Inclusion Phase 2 study participants.

This report presents 12 month social and economic outcomes for J2SI participants against a comparison group using existing services.



### A highly vulnerable population

68% male and 32% female with an average age of 41 years

12.2% identify as Aboriginal or Torres Strait Islander

5.2 % have served in the Australian Defence Force

20% report 'very good' health, compared with 56% of the general Australian population

33% report that they have been diagnosed with Hepatitis C, compared with 0.98% of the general Australian population

21.6% report that they have been diagnosed with an acquired brain injury, compared with an estimated 2.2% of the general Australian population



### Improvements in the following areas

High risk amphetamine use declined from 21.6% to 12.7%

High risk use of opioids decreased from 23.9% to 11.9%

An increase in the proportion receiving methadone treatment from 17.2% to 25.4%

A decrease in levels of overall psychological distress

### KEY DEMOGRAPHICS OF RESEARCH PARTICIPANTS



**12%**

OF PARTICIPANTS IDENTIFY AS ABORIGINAL OR TORRES STRAIT ISLANDER



**5%**

OF PARTICIPANTS HAVE SERVED IN THE AUSTRALIAN DEFENCE FORCE



**68%**

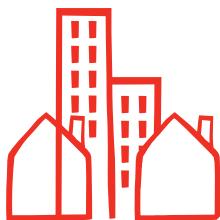
ARE MALE WITH AN AVERAGE AGE OF 40



**32%**

ARE FEMALE WITH AN AVERAGE AGE OF 41

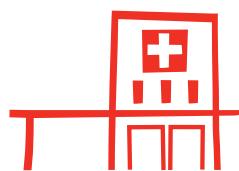
**The first year of the J2SI Phase 2 program focused on the attainment of permanent housing, stability and addressing immediate health needs. This is measured by the number of participants in permanent housing and emergency department and hospital admissions.**



### Housing

The proportion of the J2SI group that were housed increased from 8.3% at baseline to 60% at the end of Year One

The proportion of the comparison group that were housed increased from 9.5% at baseline to 31.1% at the end of Year One

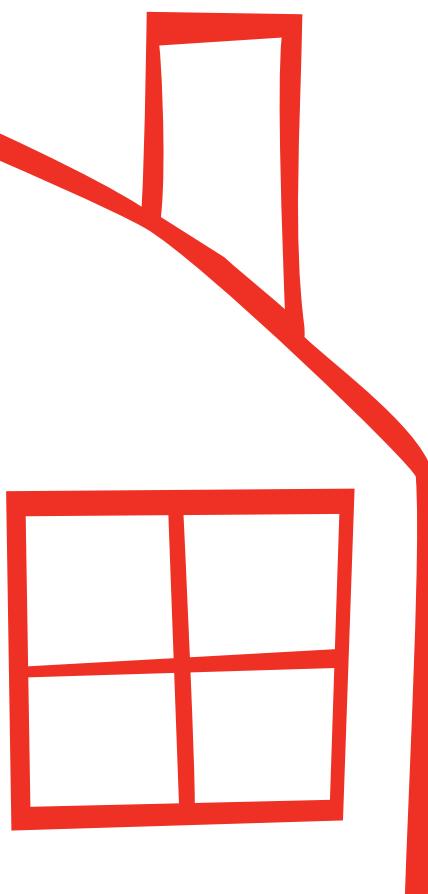


### Healthcare

The mean number of hospital nights over the previous 12 months decreased from 7.97 to 2.87 for the J2SI group compared to an increase from 3.23 to 7.24 for the comparison group

The mean number of nights in drug and alcohol rehabilitation facilities over the previous 12 months decreased from 11.45 to 0.80 for the J2SI group compared to a decrease from 6.47 to 4.61 in the comparison group

Mean healthcare costs for the J2SI group decreased from \$27,898 to \$12,480 compared to an increase from \$14,426 to \$24,478 for the comparison group.



## J2SI PARTICIPANT OUTCOMES



**60%**

**OF THE J2SI GROUP  
WERE HOUSED  
VERSUS 31% OF THE  
COMPARISON GROUP**



**64%**

**FEWER NIGHTS  
IN HOSPITAL FOR  
THE J2SI GROUP VERSUS  
124% INCREASE FOR THE  
COMPARISON GROUP**



**55%**

**REDUCTION IN  
HEALTHCARE COSTS  
FOR THE J2SI GROUP  
VERSUS 70% INCREASE  
FOR THE COMPARISON  
GROUP**

## Acknowledgements

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We would also like to thank our three partner agencies in this study (Sacred Heart Mission (SHM), VincentCare and St Mary's House of Welcome) and their staff for their assistance in implementing the study. In particular, we wish to thank the J2SI Phase 2 Steering Committee and J2SI Phase 2 Evaluation Committee; SHM CEO, Cathy Humphrey; SHM General Manager, Leanne Lewis; SHM Manager for J2SI, Karen Lococo; and SHM Operations Manager, Anna Paris.

We would also like to thank our dedicated interview teams in the study to this point: Jamie Byrne, Stephanie DePasquale, Zsuzsanna Horvath, Louise La Sala, Rachel Oldfield, Natalia Pereira, Daniella Silverstein, Meg Callander, Lee Blizzard, Jeanette Symes, Pamela Williams, Nancy Georgy, Chris Jillard, Fiona Corrigan, Justine McGill, Catherine Teal, Hayley Ayton, Simone Ray, Mason Littlejohn, Yoon Hee Yang, Angela Merriam, Daryl Taylor, Kylie Roberts, Matthew Teran, Michael Davey, Isabella Tambakau, and Layla Silverstein.

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The opinions in this report reflect the views of the authors and do not necessarily reflect those of SHM and partner organisations.

## About Sacred Heart Mission

Sacred Heart Mission (SHM) was founded in 1982 as a small volunteer service providing food, clothing, emergency relief, accommodation and companionship to people experiencing homelessness. It has grown to become a major provider of homelessness services in Melbourne. Further information about SHM is available at [www.sacredheartmission.org](http://www.sacredheartmission.org).

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## Disclosure

This report is presented by an independent research team based at the University of Western Australia and Swinburne University of Technology. It provides findings from the first 12 months of the J2SI Phase 2 randomised control trial study.

The report was published in July, 2018 which is 30 months into the study. The publication of these findings may have an impact on how the program is administered and how individual caseworkers interact with program participants for the remainder of the program. This in turn may impact on outcomes achieved by J2SI Phase 2 program participants from the 30-month time period onwards.

The J2SI Phase 2 program is not a double-blind RCT. As such, the J2SI Phase 2 program managers and case workers have been aware from the start of the study that they were working with J2SI Phase 2 program participants.

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## Acronyms and abbreviations

<b>ABS</b>	Australian Bureau of Statistics
<b>ABI</b>	Acquired brain injury
<b>Active J2SI group</b>	Study respondents randomised to the intervention group (J2SI Phase 2 program) who were actively engaged with the program at the 12-month time point
<b>AHURI</b>	Australian Housing and Urban Research Institute
<b>AOD</b>	Alcohol and other drugs
<b>ASSIST</b>	Alcohol, Smoking and Substance Involvement Screening Test
<b>Baseline</b>	Baseline refers to the point at which the first wave (Wave 1) of the longitudinal survey was undertaken prior to randomisation
<b>Baseline Sample</b>	The sample of J2SI Phase 2 study respondents that completed the Baseline survey
<b>CEO</b>	Chief Executive Officer
<b>CSI UWA</b>	Centre for Social Impact University of Western Australia
<b>DASS21</b>	Depression Anxiety Stress Scales, Second Edition, Short Form
<b>ED</b>	Emergency department
<b>E group</b>	Study respondents randomised to the comparison group (services as usual)
<b>GP</b>	General practitioner
<b>ICM</b>	Intensive Case Manager
<b>I group</b>	Study respondents randomised to the J2SI group who could not be contacted, did not engage with the program or left the geographical area of support
<b>J2SI group</b>	Study respondents randomised to the intervention group (J2SI Phase 2 program)
<b>J2SI</b>	Journey to Social Inclusion
<b>J2SI Phase 2</b>	Journey to Social Inclusion Phase 2
<b>K10</b>	Kessler Psychological Distress Scale
<b>OTI</b>	Opiate Treatment Index
<b>PTSD</b>	Posttraumatic Stress Disorder
<b>RCT</b>	Randomised controlled trial
<b>S-WEMWBS</b>	Short Warwick-Edinburgh Mental Well-being Scale
<b>SD</b>	Standard deviation
<b>SHM</b>	Sacred Heart Mission
<b>UWA</b>	University of Western Australia
<b>Matched Sample</b>	The sample of J2SI Phase 2 study respondents that completed both the Baseline survey and the Wave 3 survey
<b>Wave 1</b>	The first wave of the J2SI Phase 2 study longitudinal survey (the Baseline)
<b>Wave 2</b>	The second wave of the J2SI Phase 2 study longitudinal survey
<b>Wave 3</b>	The third wave of the J2SI Phase 2 study longitudinal survey
<b>WHO</b>	World Health Organisation
<b>WHOQOL</b>	World Health Organization Quality of Life
<b>WHOQOL-BREF</b>	World Health Organization Quality of Life Brief Version

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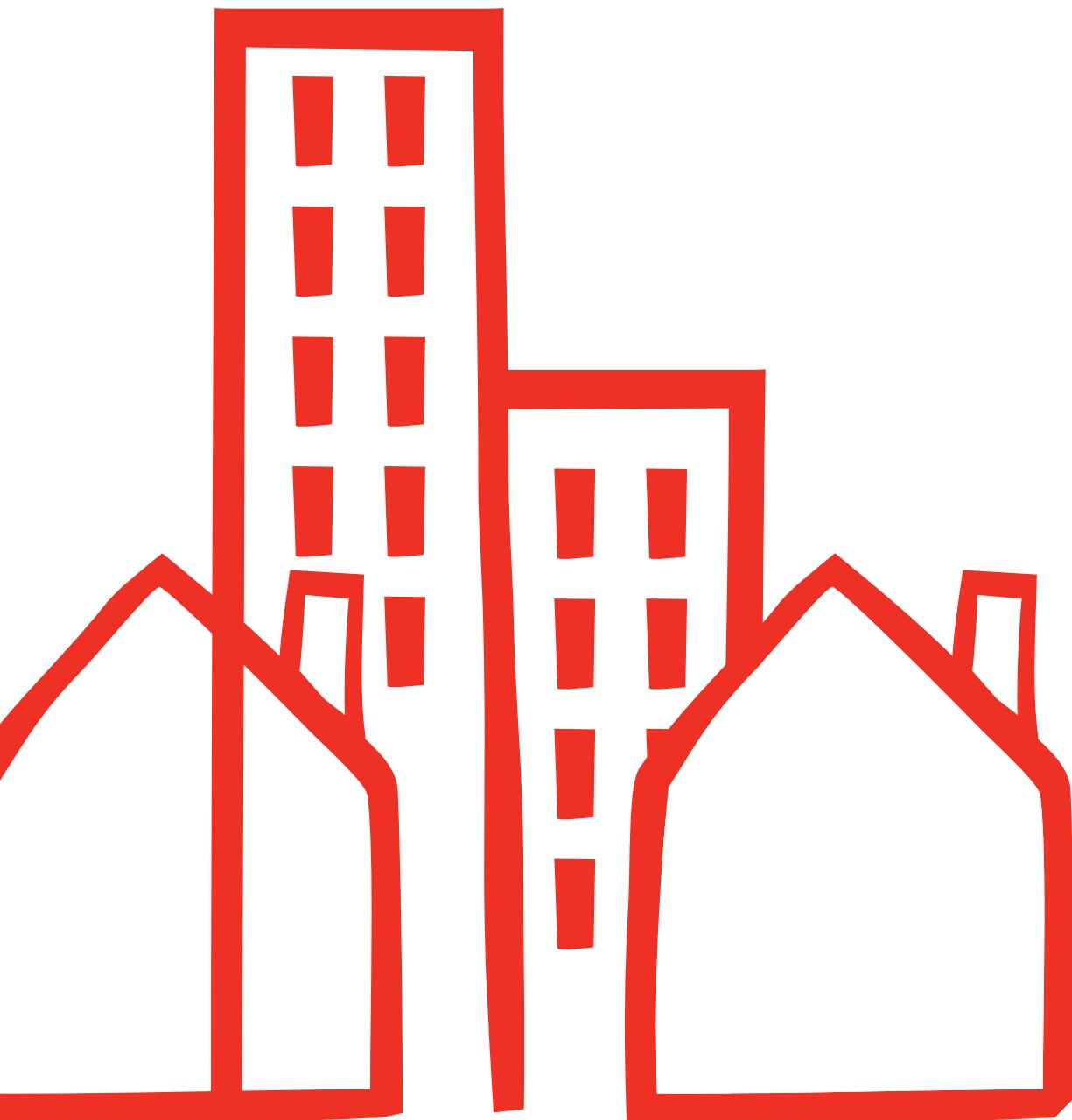
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## Executive summary

The Journey to Social Inclusion (J2SI) Phase 2 program, delivered by Sacred Heart Mission (SHM), uses an intensive case management approach focused on capacity building and relationship development to facilitate the movement of chronically homeless people in Melbourne to permanent, stable housing and a pathway to broader social inclusion. Phase 2 of the program arose out of the success of a pilot study (Johnson et al., 2011, 2012, 2013, 2014) that demonstrated high rates of housing attainment and retention. Sacred Heart Mission (SHM) has enlisted the Centre for Social Impact at The University of Western Australia (CSI UWA), in collaboration with Swinburne University of Technology, to lead a longitudinal research study to evaluate the J2SI Phase 2 program. The research study is a randomised control trial (RCT) where eligible study participants, were randomised upon recruitment and after the Baseline survey into the J2SI Phase 2 program, termed the J2SI group, or the comparison group that continues to receive homelessness services as usual, termed the E group (existing services). Some of those randomised to the J2SI group were not able to be contacted by the J2SI Phase 2 program team, left the geographical area covered by the program or did not engage with the program. This group is labelled the 'I group' (Inactive group). Those in the J2SI group who remained engaged at the 12-month point are referred to as the Active J2SI group.

This report presents findings at the Year One time point in which we compare outcomes at the Wave 3 time point with those at Baseline using survey data that were collected during interviews with research study participants. The findings cover a broad range of wellbeing domains, including housing, physical health, mental health, alcohol and other drug (AOD) issues, health service utilisation, economic participation, social support and quality of life. The report examines outcomes for study participants as a whole, outcomes at Wave 3 compared with the Baseline broken down by permanent housing status at Wave 3, and outcomes achieved for J2SI Phase 2 participants relative to other participants. A detailed analysis of the latter issue will be undertaken at the completion of the project and published in the final report.

One hundred and eighty valid responses were obtained at Baseline in the study's longitudinal survey. For various reasons, including participant deaths, withdrawal from the study, and loss to follow-up, 134 complete responses were collected at Wave 3. To allow for the tracking of change over time, results from only those who completed both the Baseline and Wave 3 (i.e., the Matched Sample) are presented in detail in this report.

### Housing

Supporting participants to obtain and sustain permanent tenancy is the primary focus of the first year of the J2SI program. These housing goals are reflected in the findings at Year One of the study. At Baseline, 9.0% of the Matched Baseline sample was permanently housed (i.e., in public and community housing, private rental accommodation or owner-occupation) in the night prior to their survey but judged to be at risk of homelessness (see full eligibility criteria on page 8 of this report). At Wave 3, 44.8% of study participants were permanently housed. (The Matched Baseline sample is the sample of J2SI Phase 2 study respondents that undertook both the Baseline survey and the Wave 3 survey.)

At Wave 3, 60.0% of study participants in the J2SI group were in permanent housing, up from 8.3% at Baseline. Permanent housing also increased for study participants in the E group (those receiving homelessness services as usual), from 10.0% at Baseline to 28.3% at Wave 3. However, transition to permanent housing was significantly higher for the J2SI group relative to the E group and the same result applied when we combined the E group and the I group. While all the J2SI group were housed in public and community housing, the same was not true for the combined groups where 11 of the 23 housed at Wave 3 were housed in private rental accommodation.

In terms of the duration of tenure in permanent housing, 56.1% of participants were in permanent housing at Wave 3 and had been there for six months or more. Although the proportion of the overall Wave 3 sample that was not in permanent housing was much smaller than the proportion at Baseline, a large proportion (46.7%) of those who were

in homelessness or institutional living arrangements (e.g., hospital, jail) had been in such arrangements for longer than six months.

### **Physical and mental health**

Chronic homelessness can precipitate and exacerbate physical and mental health conditions, as well as substance abuse issues. Accordingly, it is expected that permanent housing may lead to improved outcomes across these domains over time. Thus, the J2SI research study tracks health-related outcomes over the course of the study.

At both Baseline and Wave 3, we found that the proportion of study participants with chronic and persistent medical conditions was higher than rates among the general Australian population. However, at Wave 3 the proportion of the sample that reported a chronic and persistent medical condition was lower than at Baseline across all conditions assessed. In addition, amongst those who had each condition, a greater proportion reported receiving treatment at Wave 3.

Mental health outcomes were measured using a number of scales but principally by the Kessler Psychological Distress Scale (K10) and the Depression, Anxiety and Stress Scales (DASS21), Second Edition, Short Form. Mean scores on the K10 decreased slightly overall (from 29.2 at Baseline to 25.8 at Wave 3, out of a maximum score of 50), and this decrease was more pronounced for those in permanent housing, from 29.0 to 24.6. Mean K10 scores at Wave 3 were similar for those enrolled in the J2SI program and those receiving services as usual, at 25.9 and 25.7, respectively. Mean DASS21 scores decreased for the overall sample, from 18.1 at Baseline to 12.8 at Wave 3 for depression and 19.0 to 14.0 for stress, while anxiety remained relatively stable (13.4 to 10.5). Results were largely the same across all three DASS21 domains for those in the J2SI program and those receiving services as usual.

Finally, substance use issues, measured by the proportion of the sample in the 'high' risk category on the World Health Organization (WHO) Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) generally declined between Baseline and Wave 3 for study

participants. The proportion of participants in the high risk category for opioids and amphetamines declined substantially, from 23.9% of the Matched Sample at Baseline to 11.9% at Wave 3 for opioids and from 21.6% of the Matched Sample at Baseline to 12.7% at Wave 3 for amphetamines. The proportion of the sample in the high risk category for cannabis and alcohol remained stable at 12.7% and 13.4% of the Matched Sample at both time points, respectively.

In summary, at the conclusion of Year One of the J2SI program, outcomes in physical health, mental health and substance abuse have improved in a number of ways, though there was no differential impact of the J2SI Phase 2 program. Moreover, 12 months into the program, there was no consistent association between permanent housing on these outcomes (i.e., permanently housed participants did not have consistently better outcomes than those who were not permanently housed).

### **Health service utilisation**

Individuals experiencing homelessness evidence high rates of health service utilisation, including emergency department (ED) visits and hospital admissions that may have been preventable. They also have elevated rates of serious medical conditions and lack the resources to access healthcare treatments, particularly preventative treatments, which are costly. Moreover, homelessness is inherently unsafe and risk of injury and victimisation may lead to the use of emergency health services. This type of healthcare utilisation creates a significant economic cost.

Housing with support is hypothesised to lead to reduced healthcare costs over time. In the short term, however, healthcare costs may rise due to untreated health problems being now treated. There were no notable or consistent differences in changes in health service utilisation between the permanently and non-permanently housed participants at Wave 3. The average number of hospital nights in the 12 months prior to survey completion increased between Baseline and Wave 3 for the permanently housed participants and decreased for those in homelessness and institutional living accommodation. However, the mean number of nights

hospitalised amongst the latter group was still much higher than among the permanently housed. The average number of nights in a mental health facility and mean number of visits to a mental health professional decreased for permanently housed participants and increased for those in homelessness and institutional living accommodation. The mean number of ED visits was slightly higher at Wave 3 amongst permanently housed participants compared with the non-permanently housed, i.e., those homeless or in institutional accommodation (1.98 versus 1.57).

The mean number of hospital nights in the 12 months prior to the survey for J2SI program participants decreased from 7.97 to 2.87. For those receiving services as usual, the mean number of hospital nights increased from 3.23 to 7.24. Nights in drug and alcohol rehabilitation decreased for J2SI program participants, from 11.45 at Baseline to 0.80 at Wave 3. The mean nights in drug and alcohol rehabilitation for those receiving services as usual also decreased from 6.47 to 4.61.

The average estimated health service costs for the matched sample decreased slightly between Baseline and Wave 3 (\$20,458 and \$19,115, respectively). This decrease was primarily due to those who were in homelessness or in institutional living accommodation (from \$25,013 at Baseline to \$22,726 at Wave 3). For those who were permanently housed at Wave 3, this decrease was very small (\$14,668 at baseline and \$14,648 at Wave 3). However, overall mean healthcare costs for J2SI program participants surveyed at Wave 3 decreased significantly from \$27,898 at Baseline to \$12,480 at Wave 3. For those receiving services as usual, health costs increased from \$14,426 at Baseline to \$24,478 at Wave 3. It must be remembered that mean healthcare costs in relatively small samples can be significantly affected by very high costs incurred by a small number of participants.

Results also varied with regard to AOD treatment. The proportion of the sample reporting that they had accessed inpatient or residential detoxification in the six months prior to survey increased at Wave 3 relative to Baseline, while the proportion undertaking both supervised and unsupervised home detoxification decreased. The proportion of the sample receiving Methadone treatment increased from 17.2% at Baseline to 25.4% at Wave 3.

In terms of the differences between those in permanent housing versus those not in permanent housing, the permanently housed appeared to be undertaking more home and community-based, rather than inpatient treatment for drug and alcohol issues.

## Economic participation

At Wave 3 employment and labour force participation remained very low amongst J2SI study participants. Over half of the overall sample reported that they were unable to work due to a health condition or disability at Wave 3. Notably, the proportion of those permanently housed at Wave 3 that were unable to work due to a health condition or disability decreased from 55.9% at Baseline to 49.2% at Wave 3. There was a slight increase in the proportion of those not in permanent housing at Wave 3 who were employed, from 1.3% at Baseline to 2.7% at Wave 3. There were no notable differences between J2SI program participants and those receiving services as usual in terms of labour force participation, employment, or unemployment.

The proportion of the overall matched sample that was unemployed decreased from 25.4% at Baseline to 20.1% at Wave 3, though this is largely accounted for by people moving out of the labour force as the proportion that were not in the labour force increased from 70.1% at Baseline to 74.6% at Wave 3.

## Social support and quality of life

Social support is a critical facilitator of successful exit from homelessness. Social support was measured using the Scale of Social Support developed by the research team that conducted the J2SI Pilot Study. Mean social support scores increased slightly between Baseline and Wave 3 across the overall sample (from 27.6 to 31.2, out of a maximum of 49) and, interestingly, increased more amongst those who were not permanently housed. This may be explained by the building of resilience and social ties as time in homelessness increases. Scores of social support for J2SI program participants and those receiving services as usual followed the same pattern (i.e., those receiving services as usual reported slightly higher scores of social support than J2SI program participants).

Quality of life, measured by the mean score on the World Health Organization Quality of Life – Brief Version (WHOQOL-BREF) increased across all four domains: physical health, psychological, social relationships and environmental for the permanently and non-permanently housed participants. Mean scores also increased for both J2SI program participants and those receiving services as usual across all domains. Notably, and in line with expectations, improvement on the environmental domain was greater for those in permanent housing (46.0 at Baseline to 61.2 at Wave 3) than those not in permanent housing (47.0 to 55.3).

## Looking forward

A crucial measure of the success of the J2SI program is how participants feel about their lives. We measure this by asking participants to rate out of five their current life satisfaction and optimism for the future across key life outcome areas: housing, mental health and wellbeing, physical health, employment readiness, employment, finances, safe use of alcohol and drugs, social connections, participation in social activities, capacity for independence, and overall situation.

Satisfaction improved across all domains between Baseline and Wave 3 and, in particular, with housing and overall situation. Optimism was also higher across all domains, with the mean optimism for safe use of alcohol and drugs and capacity for independence at Wave 3 being greater than 4 out of 5.

This bodes well for future outcomes, as the focus of client engagement shifts in the J2SI program to coaching and empowering clients to progress toward other individual

goals. With regard to the research study, outcomes for Years 2 and 3 will be reported in 2019, at which time a final evaluation will occur. Therein, findings from quantitative survey data, qualitative interview data, and longitudinal linked administrative data will be integrated to provide a comprehensive picture of participants' journeys to social inclusion.

## Limitations

In this report, we provide findings on outcomes for (1) participants in the study as a whole, (2) for those who became housed prior to Wave 3 and those not housed and (3) for the J2SI group at Wave 3 relative to those randomised to existing services or those randomised to the J2SI program who became inactive for various reasons. In a follow up to the present report, a detailed examination of outcomes achieved by the J2SI group relative to the E group will be published after the completion of the program at the three-year time point.

We would note that a limitation of releasing results of differential impact at the present point is that they may have an impact on the treatment of participants in the J2SI program and possibly also those not in the program from the point of time of release of the present results (i.e., 30 months into the study). This means that differential results at the three-year time point may be affected by the results presented in this report. We would note that as the J2SI Phase 2 RCT is not a double blind trial, intensive case managers and program managers have been abreast of the progress being made by participants actively engaged in the program throughout the period of the program, which may always have affected the management and administration of the program.

## 1. Introduction

This report presents findings from the first year of the Journey to Social Inclusion (J2SI) Phase 2 research study. It follows the release of the Baseline Report in 2017, which described the characteristics of study participants (Miscenko et al., 2017). The J2SI Phase 2 research study is a mixed-methods, multisite randomised control trial that is following the progress of 180 adults experiencing chronic homelessness in Melbourne over a four-year period.

J2SI Phase 2 is a program developed and delivered by Sacred Heart Mission (SHM). It aims to break the cycle of chronic homelessness by providing rapid access to sustained permanent housing and improving the health, well-being and social outcomes of participants. The program takes a relationship-based, trauma-informed and strengths-based approach in the context of long-term assertive case management. J2SI focuses on capacity building and skills-based support to assist clients to maintain tenancies, gain training and employment, and establish stronger social connections as well as independence. The J2SI Phase 2 program builds on the pilot J2SI program undertaken between 2009 and 2012 (Johnson & Tseng, 2010; Johnson et al., 2011; Johnson et al., 2012; Johnson et al., 2013; Johnson et al., 2014; Parkinson, 2012; Parkinson & Johnson, 2014). The J2SI service model differs markedly from standard approaches supporting those experiencing homelessness in its low client-staff ratio (6:1) and dedicated three-year intervention.

Participants in the J2SI Phase 2 research study were recruited from services that support individuals experiencing homelessness in Melbourne, Victoria, and were randomised to the J2SI Phase 2 intervention or homelessness support as usual. Those randomised to the J2SI Phase 2 intervention comprise the 'treatment group' and are referred to as the J2SI group, while those randomised to the 'comparison group', referred to as the E group, are eligible to receive existing homelessness services (i.e., services as usual). As respondents were recruited through homelessness services we can presume that the majority would continue receiving services as usual where they elect to do so and services continue to be provided. Where those randomised to the J2SI

group who subsequently left the geographical scope of support or could not be contacted by the J2SI Phase 2 support team or were deemed not to have engaged in the program they were categorised as the 'inactive' and form the 'I group'. Participation in the study was voluntary and all participants provided written, informed consent. Participants could withdraw at any time.

The Australian Bureau of Statistics (ABS) estimates that over 116,000 people in Australia were homeless in 2016 on Census night (ABS, 2018). This highlights the enormity of the problem of homelessness in Australia. Census data provide a point-in-time count and socio-demographic profile of people who are experiencing homelessness. However, census data do not shed light on the issue of chronic homelessness, the journeys of individuals who experience homelessness, nor the impact of support services on those journeys. It is precisely these latter issues—the journeys to social inclusion of those who experience chronic homelessness and the effectiveness of the J2SI Phase 2 program—that are of primary interest in the J2SI research study.

The J2SI Phase 2 study utilises the 'cultural definition of homelessness' (Chamberlain & MacKenzie, 1992, 2003, 2008). Under the cultural definition, homelessness is defined as a state in which individuals do not have access to the minimum accommodation standards that Australians believe all have the right to expect. Homelessness is further classified as primary homelessness (i.e., sleeping rough), secondary homelessness (i.e., emergency and crisis accommodation, women's refuges, youth refuges, transitional supported accommodation, caravan parks, couch surfing as a result of having nowhere else to sleep), and tertiary homelessness (i.e., boarding houses with shared kitchen and bathroom facilities and no secure tenure). It is important to note that the ABS definition of homelessness differs from the cultural definition of homelessness used in the J2SI Phase 2 research study. The ABS definition includes those who are conventionally housed, but whose dwelling is inadequate in that it does not allow the individual to have control of and access to space for social relations, such as in overcrowded dwellings (Flatau et al., 2018).

Chronic homelessness is defined as either rough sleeping (i.e., primary homelessness) for 12 months continuously at some point in the past and/or at least 3 episodes of any form of homelessness (i.e., primary, secondary and/or tertiary homelessness) in the last three years. Flatau et al. (2018) analysed Australia's Registry Week data, which was collected by service delivery agencies across Australian cities over the period 2010–2017 and includes information about individuals rough sleeping or being supported in crisis accommodation or other forms of non-tenured housing. Some 7,039 individuals answered the question, "What is the total length of time you have lived on the streets or emergency accommodation?" The average duration was 5.1 years. This suggests that many individuals who experience homelessness in Australia do so for long periods, thereby highlighting the extent of chronic homelessness in Australia.

There are many known structural and individual determinants of homelessness. Structural determinants include shortages of affordable housing, high unemployment and poverty (Shinn & Weitzman, 1990; Elliott & Krivo, 1991; Early, 2005; Nooe, 2010). Physical health conditions (Hwang, 2001; Fazel, Geddes, & Kushel 2014), mental health conditions such as substance use disorders, and parental and family violence, are key individual-level determinants of homelessness, both nationally and internationally (Fazel et al. 2008, Spicer et al. 2015, Teesson, Hodder, & Buhrich 2000; Buhrich, Hodder, & Teesson 2000; O'Donnell et al. 2014; Flatau et al. 2012; Conroy et al. 2014; Mischenko et al. 2017). The experience of homelessness compounds (and may generate) these individual-level risk factors. For example, an individual with a chronic health condition who becomes homeless may be unable to afford the medication and treatment necessary to manage their condition. Moreover, substandard living conditions while homeless may exacerbate their symptoms, further inhibiting their daily function and creating additional barriers to exiting homelessness. Recognition of the complex needs of the homeless population contributed to the holistic, intensive design of the J2SI Phase 2 program created by SHM.

In addition to compromised quality of life, there is a wealth of evidence that many societal systems, including the health, justice, and welfare systems, incur substantial

costs as a result of homelessness (Flatau et al. 2008; Flatau & Zaretzky, 2008; Zaretzky, Flatau, & Brady, 2008; Poulin et al. 2010; Hwang et al. 2011; Hwang et al. 2013; Zaretzky et al. 2013; Wood et al. 2016; Parsell, Petersen, & Culhane, 2016; Zaretzky et al. 2017). Consequently, the J2SI research study measures changes across several domains of social and economic wellbeing. Integration of these elements serves to both improve understanding of the journeys of individuals who experience chronic homelessness and to evaluate the full impact of the J2SI Phase 2 program on its participants and broader social systems. In particular, it aims to evaluate changes in utilisation of various Government and public health services and the associated costs or cost savings associated with these changes among J2SI Phase 2 participants, relative to participants who receive services as usual.

The objectives of the J2SI Phase 2 research study are to:

- Describe histories, needs, circumstances and pathways of those experiencing chronic homelessness in Melbourne;
- Assess the impact of the J2SI Phase 2 program implemented by SHM compared to that derived from existing service provision in the following domains: education, employment and income; social inclusion; mental health; physical health; housing; and, service usage;
- Examine the cost of the J2SI Phase 2 program compared with existing service provision and assess the overall cost-effectiveness of the J2SI Phase 2 program (accounting for differential cost offsets); and,
- Provide a framework for scaling up the J2SI intervention pending positive evaluation findings.

To achieve these objectives, the study utilises a mixed-methods design, including quantitative surveys administered to participants in each group every six months for three years; qualitative interviews with a smaller, randomly selected segment of the sample and case workers; and the linkage of Victorian and Australian Government administrative data.

The present report is the second of three reports to be published from the J2SI Phase 2 research study. The

first report, Misicenko et al. (2017), provided a detailed description of the design of the J2SI Phase 2 program and research study, sample recruitment, and participant histories and characteristics. It also provided an overview of Baseline results, such as mental health symptoms and self-reported health service utilisation. In the present study, our attention turns to the participants' journeys during the first year of the study. The final report in the series will examine the overall effectiveness of the J2SI Phase 2 program and its cost-effectiveness over the three years of operation.

In this report, we present findings from surveys that were completed by respondents during the first year of the J2SI Phase 2 research study. We also provide insights into how the J2SI Phase 2 program was implemented drawing on interviews conducted with caseworkers (see Box 1). The period from January to September 2016 comprised assessment of eligibility for the program and research study, recruitment and consent, completion of the Baseline survey (Wave 1) and randomisation to the J2SI Phase 2 program or to services as usual. Wave 2 data collection commenced six months after the start of the Baseline wave and took place between July 2016 and May 2017. Wave 3 took place between January and December 2017 and assessed participants' progress one year on from the start of the research study.

The first year of the J2SI Phase 2 program focuses on the attainment and subsequent sustainability of permanent housing, and addressing immediate health needs. Statistical analysis of Wave 3 (or 12-month data) revealed a significant difference between the J2SI group and the E and I group participants in access to permanent housing, with J2SI Phase 2 program participants achieving significantly higher rates of permanent housing access compared with the other study participants. There was also a significant decrease in healthcare costs for the J2SI Phase 2 program participants from Baseline to Wave 3. However, across all other domains examined in this report, no significant changes in outcomes between the J2SI program group and the E and I groups were observed at the 12-month point. If the I group is removed from the analysis, an additional significant difference is evident in the Environmental domain in the World Health Organization Quality of Life (WHOQOL-BREF) scale, with J2SI Phase 2 program participants achieving a positive differential outcome.

In this report, we present 12-month changes in outcomes and, where appropriate, disaggregate the sample by whether or not the respondent was in permanent housing. Permanent housing is defined as holding a tenancy in public or community housing, private rental accommodation, or living in one's own home for the week prior to survey. A wider definition may include tenure in 'transitional housing' (i.e., housing provided through specialist homelessness services), where having a lease of over 12 months is reported. At the point of the Wave 3 survey, self-report measures of housing did not allow us to distinguish the transitional housing group from those in other forms of supported accommodation. Those not in permanent housing were experiencing homelessness (i.e., rough sleeping, staying with friends or family due to not having anywhere else to go, or temporary accommodation) or were living in an institutional setting (e.g., in hospital or a mental health facility or jail). Thus, in most instances, 12-month outcomes will be broken down according to permanent housing status, rather than by participants randomised to the J2SI Phase 2 program or services as usual. A comparison of participants in the J2SI Phase 2 program with those receiving services as usual will be the focus of the research study's final report, to be released at the conclusion of the trial.

In most instances, this report will examine changes between the Baseline survey and Wave 3 for what is referred to as the 'Matched Sample'. The Matched Sample includes those participants who completed both the Baseline and Wave 3 surveys.

Outcomes related to the following domains will be discussed:

- Housing
- Health (physical health, mental health, alcohol and other drug use)
- Health service utilisation
- Economic participation
- Social support
- Quality of life

## 2. Research methodology

The mixed-methods research design adopted in the J2SI Phase 2 research study includes the collection of longitudinal survey data from study participants (i.e., J2SI and services as usual groups), qualitative interviews with a random sample of study participants from both groups, semi-structured interviews with J2SI Phase 2 service providers, and linked administrative data from Victorian and Australian Government agencies. The present report captures findings from the first three waves of the longitudinal survey: Baseline (Wave 1), 6 months (Wave 2), and 12 months (Wave 3), with a focus on comparing Baseline and Wave 3.

To be eligible for the J2SI Phase 2 research study participants had to:

- Be aged 25-50 years, be permanent residents of Australia, have Centrelink entitlements, and not be engaged in an existing long-term intensive homelessness support program; and,
- Have experienced rough sleeping continuously for 12 months and/or three episodes of homelessness over the previous three years; and,
- Be currently experiencing homelessness (primary, secondary or tertiary), or housed for six months or less and at risk of homelessness due to having received a notice to vacate or a breach of tenancy notice without a secure housing option available.

Potential participants who otherwise may have been eligible for the study were excluded from the research if they:

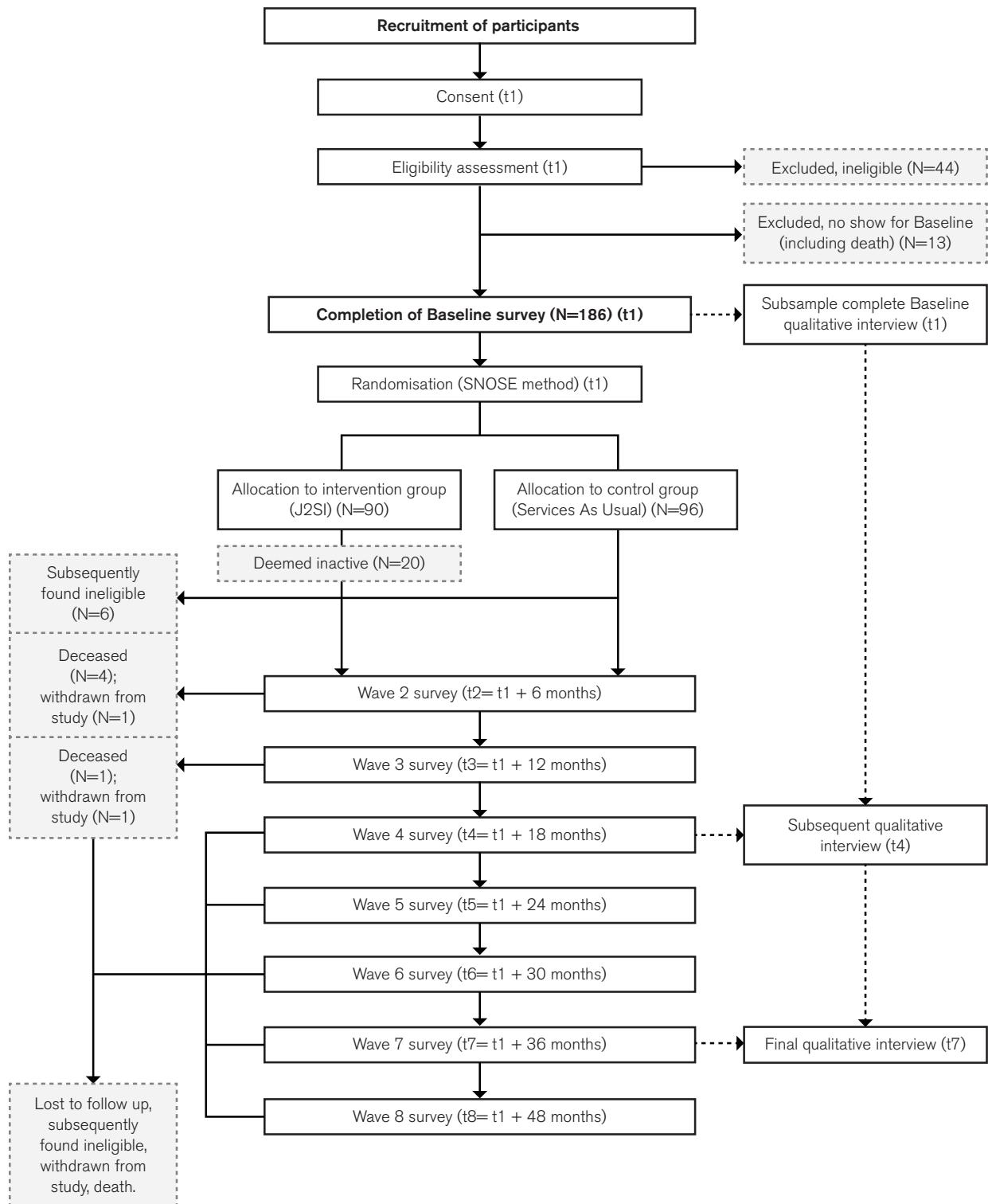
- Could not speak English fluently (as budget constraints precluded the hiring of interpreters); or,
- Had unmanaged mental illness that was severe enough to prevent the provision of informed consent; or
- Posed an identifiable safety threat to themselves or others that the service was unable to manage; or
- Were for any reason unable to give informed consent or participate fully in the study.

Participants in the study were assessed for eligibility against the above criteria; provided written, informed consent; and, following the completion of the Baseline survey, were randomised to the J2SI Phase 2 program or to services as usual. Randomisation outcomes were determined through a simple shuffled envelope system in line with the recommendation of SHM that this system would be more acceptable to clients than computerised randomisation systems. Participants were randomised to receive the J2SI Phase 2 Program (J2SI group) or homelessness services as usual (E group). It is important to note that, due to recruitment occurring via service delivery agencies, we expect that respondents in the E group would continue to receive existing support where eligible and where sought. However, services may not always be available and respondents may choose not to engage on a consistent basis. Therefore they may not always be receiving support.

In adherence to guidelines for ethical human research, participants could withdraw from the study at any time. If participants informed their interviewer or any member of the research team that they wished to withdraw, they were presented with a withdrawal form and guided through its completion. In this form, participants could choose whether they wanted to withdraw from future survey waves and whether they wanted the survey data already collected from them to be excluded from analysis.

The initial target sample size was 60 J2SI group participants and 70 E group participants, with the latter group slightly larger in anticipation of a higher attrition rate. At the conclusion of recruitment, 90 participants had been randomised into the J2SI group and 96 were randomised into the E group. After recruitment, 8 J2SI group participants moved outside of the geographic scope of the program and 12 could not be contacted in the 3 months after their Baseline interview. These participants were categorised as 'inactive' (I group). Six J2SI group participants were deemed ineligible after Baseline due to currently receiving or having recently received long-term homelessness support. Therefore, the final Baseline sample was comprised of 84 J2SI group participants, 64

**Figure 1: CONSORT Flow diagram of J2SI research study participants**



**Table 1: Data collection dates and survey numbers**

Wave of data collection	Dates	Deaths prior to survey wave	Withdrawals prior to survey wave	Adjusted potential sample size(a)	Number of valid surveys completed	Response rate
Baseline (Wave 1)	8 January 2016 – 30 September 2016	-	-	-	180	-
Wave 2	8 July 2016 – 30 May 2017	4	1	175	121	69.1%
Wave 3	5 January 2017 – 11 December 2017	1	1	173	134	77.5%

(a) Excludes deaths and withdrawals from total Baseline sample.

Source: J2SI Phase 2 Baseline, Wave 2 and Wave 3 Survey

of whom were active participants in the J2SI program, and 96 E group participants, one of whom withdrew but consented to their Baseline data being used. This participant was not contacted for subsequent waves of the study. The CONSORT flow diagram in Figure 1 outlines the recruitment and attrition of participants through the study.

A total of 435 surveys were conducted with study participants during 2016 and 2017 over three waves of data collection for the J2SI Phase 2 research study.

Table 1 outlines the dates of each data collection wave, the number of participants who withdrew or died prior to survey completion for that wave, and the number of surveys completed. Excluded from the number of valid surveys completed for the Baseline are 6 respondents who were randomised to the intervention but were later determined by SHM J2SI Phase 2 support team to be ineligible to participate in the study. It is difficult to pinpoint whether and exactly when participants became inactive. Therefore, Table 1 does not identify the number of participants who were inactive prior to the commencement of each survey wave, and we cannot draw any conclusions about the impact of inactive participants on the response rate for each wave.

As in the Baseline report, we examine in this report a broad range of outcomes for study participants as a whole, rather than for J2SI Phase 2 Program participants (the J2SI group) relative to those receiving existing services (the E group). The exception to this is access to permanent housing, as this was the main focus of Year One of the J2SI program. The differential impact of the J2SI Phase 2 Program on all outcomes of interest will be undertaken at the completion of the program and summarised in the final report. This is necessary to maintain the validity of the ongoing study. However, in order to capture differences over time, we match responses at Baseline and Wave 3 for those participants who completed both waves. For clarity, Table 2 provides a brief glossary of terms used to refer to the time points and samples covered in this report.

**Table 2: Terms used to refer to time points and groups of participants in this report**

Term	Definition
Baseline	The time of the initial recruitment and the first wave of the longitudinal survey round
Wave 3	The survey round conducted one year post-Baseline
Baseline Sample	All study participants who completed the Baseline survey
Matched Sample	Those participants who completed Baseline and Wave 3 surveys. Their results at the different time points will be referred to as “at Baseline” and “at Wave 3”

As noted previously, not all participants randomised to the J2SI Phase 2 Program (the J2SI group) engaged with the program. However, they remained part of the research study and were still invited to complete follow-up surveys. Because we were unable to determine at which point they became inactive, and therefore unable to gauge the duration of the J2SI Phase 2 intervention received prior to their becoming inactive, inactive participants were included in any analyses that compared J and E groups.

Prior to the commencement of Wave 2 data collection, 4 participants were known to have died and 1 had withdrawn from the research study. Three of the deceased participants and the participant who withdrew were in the E group. Prior to the commencement of Wave 3, an additional participant died and a second participant withdrew from the J2SI Phase 2 study. The deceased participant was from the J2SI group, and the additional withdrawn participant was from the E group. Both withdrawn participants consented for their linked administrative data to be obtained and for the survey data collected up to their withdrawal to be used.

There are considerable difficulties in following participants over time, as homelessness and residential instability may lead people to move often and contact details may no longer be valid at the point of follow up. The research team implemented intensive follow-up processes to ensure that respondents can be contacted, even where contact details were no longer up-to-date, including leveraging respondent consents to be able to contact services in the metropolitan area to enquire as to participants' whereabouts. Nevertheless, excluding those known to have died and those who withdrew from completing surveys, 54 respondents did not complete the Wave 2 survey (30.9%). In response to a lower than anticipated Wave 2 response rate, the research team devoted additional resources to the follow-up process, which resulted in a higher proportion of responses in Wave 3 than Wave 2; the response rate for Wave 3 was 77.5%, compared with the Wave 2 response rate of 69.1%.

### 3. A profile of study participants

Table 3 presents the sociodemographic profiles of participants at Baseline and Wave 3. The average age of participants at Baseline was 39.5 years and among Wave 3 participants, 41.0 years. The somewhat older average age at Wave 3 is explained by natural ageing associated with the time taken to complete the first three waves of the study. Likewise, there was no difference between the mean age at Baseline for those in permanent housing and those not in permanent housing. The same pattern was evident at Wave 3. At Wave 3, the mean age of those in permanent housing was 39.8 years, compared with 41.0 years for those not in permanent housing.

Two-thirds of respondents at Baseline were male (68.3%), which was also the case at Wave 3 (67.2%). The proportion of women and men who reported being in permanent housing at Baseline was roughly equal (7-8%). However, at Wave 3, a higher proportion of men (47.8%) than women (34.9%) had transitioned into permanent housing, perhaps indicating that women may face unique barriers to securing permanent accommodation. In a prior study conducted in California by Zlotnick, Robertson, and Lahiff (1999), female gender was associated with unstable housing when controlling for demographic characteristics and several other domains (e.g., economic resources). That study suggested that while women may be more likely than men to get into housing, maintaining it is a challenge. The chronicity of homelessness among the cohort in the present study may be a barrier to obtaining permanent housing, a finding also reported by Zlotnick and colleagues. Women face particular barriers to exiting homelessness, including high rates of family violence and the need for domiciles that can accommodate children, among others (Metraux & Culhane, 1999).

Aboriginal and Torres Strait Islander (Indigenous) respondents comprised 12.2% of the Baseline sample, which far exceeds the representation of Indigenous people in the Victorian population (0.8%) (ABS, 2017). None of the Indigenous participants were in permanent housing at Baseline. Fourteen respondents or 10.4% of the Wave 3 sample identified as Indigenous. Three (21.4%) were in permanent housing at Wave 3, representing a lower proportion of those in permanent housing than among non-Indigenous respondents (46.7%).

A question on whether the respondent had served in the Australian Defence Force was included in the Wave 3 survey. Seven respondents (5.2%) reported that they had served in the Australian Defence Force. Three of these veterans reported they were in permanent housing at Wave 3, which was proportionally consistent with the broader sample.

At Baseline, 81.1% of the sample were living alone, compared to 66.4% at Wave 3. At Baseline, 74.4% of those living alone were not in permanent housing and 6.5% were in permanent housing, compared to 33.6% and 32.8% at Wave 3, respectively. These statistics are derived from the question "What is your current living arrangement?" and participants select from lone person, one parent with child(ren), couple with child(ren), couple without child(ren), other family (related family e.g., siblings, parents), group (two or more unrelated persons), or other (please specify). These living arrangements can occur across all accommodation types (e.g., people can live with a partner on the streets, or in a group on the streets). Therefore, whether or not a person is living alone or with other people does not necessarily reflect their housing status.

At Wave 3, 3 respondents (2.2%) reported that they had given birth to or fathered a child in the previous 12 months. Two of these respondents were not living in permanent housing.

**Table 3: Participant sociodemographic characteristics, Baseline and Wave 3**

Baseline (N=180)							
	Total sample	Housed but at risk of homelessness (b)		Homelessness and institutional living (c)		Total sample	
	%	N	%	N	%	N	%
Mean age, years	39.5	14	41.0	166	39.3	180	39.5
Gender (%)							
Male	68.3	10	8.1	113	91.9	123	100.0
Female	30.6	4	7.3	51	92.7	55	100.0
Other gender (a)	-	-	-	-	-	< 5	-
	100.0						
Indigeneity (%)							
Indigenous respondents	12.2	0	0.0	22	100.0	22	100.0
Non-Indigenous respondents	87.8	14	8.0	144	92.0	158	100.0
	100.0						
Wave 3 (N=134)							
	Total sample	Permanent housing (d)		Homelessness and institutional living (c)		Total sample	
	%	N	%	N	%	N	%
Mean age, years	40.5	59	39.8	75	39.3	134	40.5
Gender (%)							
Male	67.2	43	47.8	47	91.9	90	100.0
Female	32.1	15	34.9	28	92.7	43	100.0
Other gender (a)	-	-	-	-	-	< 5	-
	100.0						
Indigeneity (%)							
Indigenous respondents	10.4	3	21.4	11	100.0	14	100.0
Non-Indigenous respondents	89.6	56	46.7	64	92.0	120	100.0
	100.0						

(a) Less than five respondents.

(b) Includes those who reported staying in public housing for the week prior to the survey.

(c) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(d) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

## 4. Housing

An important goal of the J2SI Phase 2 program overall, and the particular focus of the first year of the program, is to transition program participants into permanent housing and to provide the wraparound support required for them to sustain tenancy. Historically, service delivery approaches for addressing homelessness have focused on first developing readiness for permanent housing through outreach and treatment of co-occurring problems (e.g., mental health and substance abuse issues) with the eventual goal of permanent, supportive housing (Tsemberis, Gulcur & Nakae, 2004). The J2SI Phase 2 program adopts the modern Housing First approach, which places securing permanent housing as the primary goal in order to provide a stable base from which to address individuals' non-housing issues.

To ascertain housing outcomes, participants are asked at each survey wave where they slept the night prior to their survey, and where they slept during the week prior to their survey. Table 4 provides information on the self-reported housing and homelessness status of the respondent in the night prior to the survey and Table 5 reports the results for the week prior to the survey. Taking first the results for the Baseline, 92.2% of respondents reported that they were homeless in the night and week prior to the survey while 14 respondents (7.8% of the sample) reported they were in permanent housing but at immediate risk of homelessness and with a history of chronic homelessness. At Wave 3, 59 of the 134 respondents (44.0%) reported they were in permanent housing in the week prior to the survey (Table 5). This is a significant increase in the number of respondents in permanent housing over 12 months.

As is evident in Tables 4 and 5 for the Matched Sample, the rate of homelessness among those interviewed at both Baseline and at Wave 3 decreases. One quarter (24.6%) of the matched sample respondents were sleeping rough at Baseline on the night prior to the survey (Table 4). However, by Wave 3, this proportion had dropped to 8.2%, a two-thirds reduction. We also saw a substantial drop in the proportion of respondents in short- and medium-term supported homelessness accommodation (11.2% at Wave

3 versus 31.3% at Baseline see Table 4). The proportion of respondents in public/community housing increased from 9.0% at Baseline to 34.3% at Wave 3. The proportion of respondents in temporary accommodation, with friends/family, and in institutional accommodation (e.g., jail, hospitals) was relatively stable across the Baseline and Wave 3. Notably, 9.0% and 1.5% of respondents were in private rental accommodation or owner-occupied housing, respectively, the night prior to their Wave 3 survey.

The types of accommodation that respondents resided in during the week prior to completing the survey are presented in Table 5. Again, we see a marked drop in the proportion of respondents sleeping rough, from 29.1% at Baseline to 9.7% at Wave 3 amongst the matched sample. We also see a decrease in the proportion of respondents in short- to medium-term homelessness accommodation (32.1% of the matched sample at Baseline to 11.2% at Wave 3), and a substantial increase in use of public/community housing (9.0% at Baseline to 34.3% at Wave 3). The proportion of the sample staying with friends or family because they had nowhere else to live in the week prior to the survey increased slightly, from 14.2% to 17.2%, as did the proportion in institutional accommodation, from 1.5% to 3.7%.

Another positive outcome is the relative stability in accommodation between last week and last night amongst Wave 3 respondents. A higher proportion of the Matched Baseline sample slept rough in the week prior to survey relative to the night before (29.1% slept rough the week prior, 24.6% slept rough the night prior). The results indicate that this 'gap' was filled by family and friends (14.2% reported that they slept with friends and family the week prior versus 19.4% the night prior). Of particular note is the consistency between accommodation type the night prior and the week prior to survey at Wave 3 amongst those in permanent housing: 34.3% of the Wave 3 sample were in public/community housing both the week and night prior to their survey, 1.5% were in their own homes (as owner-occupier), and 9.0% were in private rental accommodation the night before and 8.2% were in private rental accommodation for the week prior.

**Table 4: Accommodation the night prior to survey completion at Baseline and Wave 3, Baseline and Matched Samples**

	Baseline Sample (N=180)		Matched Sample (N=134)			
			Baseline		Wave 3	
	N	%	N	%	N	%
<b>Homelessness and Institutional Living</b>	<b>166</b>	<b>92.2</b>	<b>122</b>	<b>91.0</b>	<b>74</b>	<b>55.2</b>
Slept rough	44	24.4	33	24.6	11	8.2
With friends/family because have nowhere else to live (e.g., couch surfing)	36	20.0	26	19.4	24	17.9
Short-to medium-term supported homelessness accommodation	58	32.2	42	31.3	15	11.2
Temporary accommodation (e.g., caravans, motels, boarding houses)	25	13.9	19	14.2	21	15.7
Institutional dwelling (e.g., hospitals, residential rehabilitation facility, jail) <sup>(a)</sup>	<5	-	<5	-	<5	-
<b>Permanent Housing</b>	<b>14</b>	<b>7.8</b>	<b>12</b>	<b>9.0</b>	<b>60</b>	<b>44.8</b>
Public/community housing	14	7.8	12	9.0	46	34.3
Private rental accommodation	0	0.0	0	0.0	12	9.0
Own house (owner occupier)	0	0.0	0	0.0	<5	-
<b>Total</b>	<b>180</b>	<b>100.0</b>	<b>134</b>	<b>100.0</b>	<b>134</b>	<b>100.0</b>

(a) Less than five respondents.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

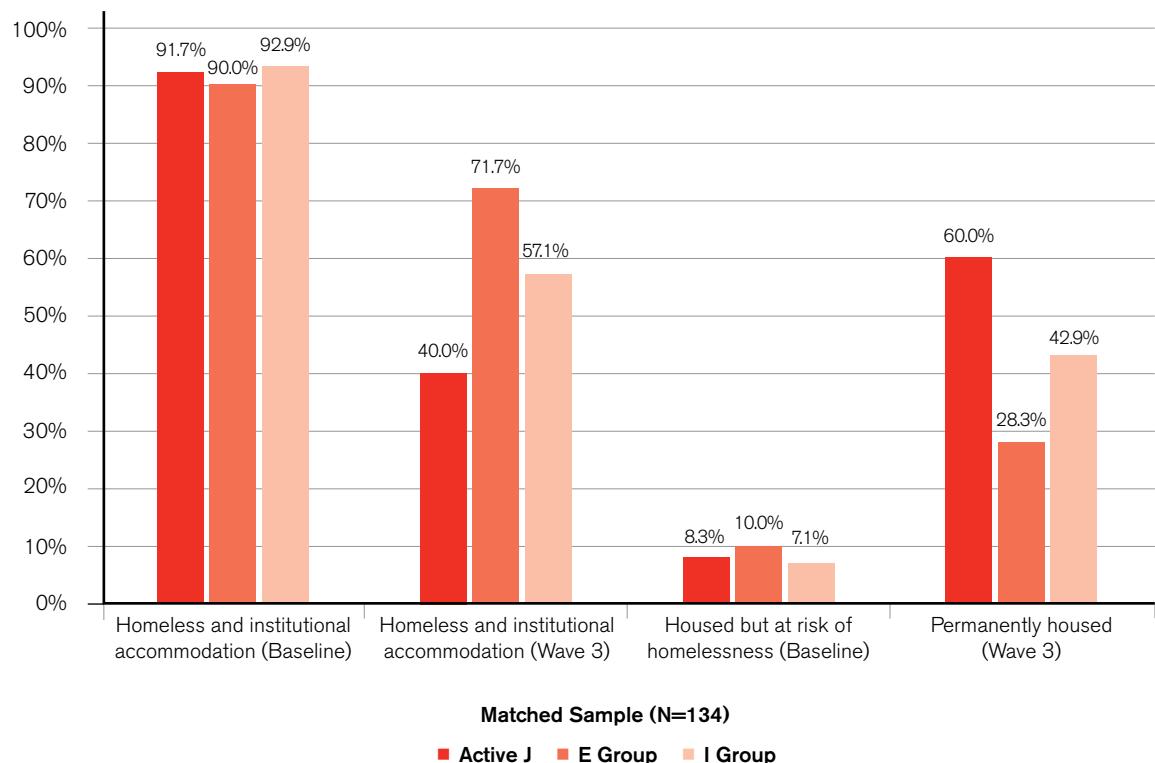
**Table 5: Accommodation in the week prior to survey completion at Baseline and Wave 3, Baseline and Matched Samples**

	Baseline Sample (N=180)		Matched Sample (N=134)			
			Baseline		Wave 3	
	N	%	N	%	N	%
<b>Homelessness and Institutional Living</b>	<b>166</b>	<b>92.2</b>	<b>122</b>	<b>91.0</b>	<b>75</b>	<b>56.0</b>
Slept rough	54	30.0	39	29.1	13	9.7
With friends/family because have nowhere else to live (e.g., couch surfing)	29	16.1	19	14.2	23	17.2
Short- to medium-term supported homelessness accommodation	56	31.1	43	32.1	15	11.2
Temporary accommodation (e.g., caravans, motels, boarding houses)	24	13.3	19	14.2	19	14.2
Institutional dwelling (e.g., hospitals, residential rehabilitation facility, jail) <sup>(a)</sup>	<5	-	<5	-	5	3.7
<b>Permanent Housing</b>	<b>14</b>	<b>7.8</b>	<b>12</b>	<b>9.0</b>	<b>59</b>	<b>44.0</b>
Public/community housing	14	7.8	12	9.0	46	34.3
Private rental accommodation	0	0.0	0	0.0	11	8.2
Own house (owner occupier)	0	0.0	0	0.0	<5	-
<b>Total</b>	<b>180</b>	<b>100.0</b>	<b>134</b>	<b>100.0</b>	<b>134</b>	<b>100.0</b>

(a) Less than five respondents.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Figure 2: Housing status in the week prior to survey completion, by program participant status at Wave 3, Matched Sample**



Source: J2SI Phase 2 Baseline and Wave 3 Survey

It is important to remember that for various reasons, not all Baseline respondents were interviewed again at Wave 3. Some participants withdrew from the study or declined to be interviewed for Wave 3, others could not be located or had died. We, therefore, present results for the full Baseline survey, as well as those for a matched sample of those who completed the Baseline as well as Wave 3. Matched samples enable us to observe changes in the same group of respondents over time. Here we compare participants' Wave 3 responses to their responses at Baseline.

Figure 2 and Table 6 depicts the proportion of respondents in different types of accommodation at Baseline and Wave 3 (for the week prior to the survey) for the different J2SI program participant status groups; namely, the J2SI participant group, the comparison group

(E group; those who access services as usual) and the non active J2SI group (the J2SI group participants that did not actively engaged with the J2SI Phase 2 program the group). Active J2SI program respondents had a much higher rate of transition to permanent housing as compared with services-as-usual respondents (see Figure 2 and Table 6). At the Wave 3 time point, 60.0% of active participants randomised to the J2SI Phase 2 program were permanently housed as compared with 31.1% for the combined E and I groups. Among the E group, the proportion permanently housed was 28.3%. At Baseline, only 8.3% of the active J2SI group participants and 9.5% of the E and I groups combined were in permanent housing. Relative to the comparison group, a significantly greater proportion of the J2SI group had moved into permanent housing from homelessness by Wave 3 ( $p < .001$ ).

**Table 6: Accommodation the week prior to survey, by program participant status at Wave 3, Matched Sample**

Baseline (N=134)								
	Active J (a)		Other respondents				Total	
	N	%	N	%	N	%		
<b>Homelessness and Institutional Living</b>	55	91.7	54	90.0	13	92.9	67	90.5
Slept rough	12	20.0	18	30.0	9	64.3	27	36.5
With friends/family because have nowhere else to live (e.g., couch surfing)	8	13.3	8	13.3	3	21.4	11	14.9
Short- to medium-term supported homelessness accommodation	24	40.0	18	30.0	1	7.1	19	25.7
Temporary accommodation (e.g., caravans, motels, boarding houses)	9	15.0	10	16.7	-	-	10	13.5
Institutional dwelling (e.g., hospitals, residential rehabilitation facility, jail) <sup>(c)</sup>	<5	-	-	-	-	-	-	-
<b>Permanent Housing</b>	5	8.3	6	10.0	1	7.1	7	9.5
Public/community housing	5	8.3	6	10.0	1	7.1	7	9.5
Private rental accommodation	-	-	-	-	-	-	-	-
Own house (owner occupier)	-	-	-	-	-	-	-	-
<b>Total</b>	60	100.0	60	100.0	14	100.0	74	100.0
Wave 3 (N=134)								
	Active J (a)		Other respondents				Total	
	N	%	N	%	N	%		
<b>Homelessness and Institutional Living</b>	24	40.0*** <sup>(b)</sup>	43	71.7*** <sup>(b)</sup>	8	57.1	51	68.9*** <sup>(b)</sup>
Slept rough	4	6.7	7	11.7	2	14.3	9	12.2
With friends/family because have nowhere else to live (e.g., couch surfing)	8	13.3	10	16.7	5	35.7	15	20.3
Short- to medium-term supported homelessness accommodation	7	11.7	8	13.3	-	-	8	10.8
Temporary accommodation (e.g., caravans, motels, boarding houses)	3	5.0	15	25.0	1	7.1	16	21.6
Institutional dwelling (e.g., hospitals, residential rehabilitation facility, jail) <sup>(c)</sup>	<5	-	<5	-	-	-	<5	-
<b>Permanent Housing</b>	36	60.0*** <sup>(b)</sup>	17	28.3*** <sup>(b)</sup>	6	42.9	23	31.1*** <sup>(b)</sup>
Public/community housing	34	56.7	11	18.3	1	7.1	12	16.2
Private rental accommodation	-	-	6	10.0	5	35.7	11	14.9
Own house (owner occupier) <sup>(c)</sup>	<5	-	-	-	-	-	-	-
<b>Total</b>	60	100.0	60	100.0	14	100.0	74	100.0

(a) The 'Active J Group' in Table 6 refers to those who were active J2SI participants at the Wave 3 interview.

(b) At Wave 3, there was a significant difference in the number of active J that were in permanent housing, compared to those who were not active J, this significance was also observed when I group respondents were removed from analysis (difference between active Js and Es). These differences were significant at the p&lt;.001 level\*\*.

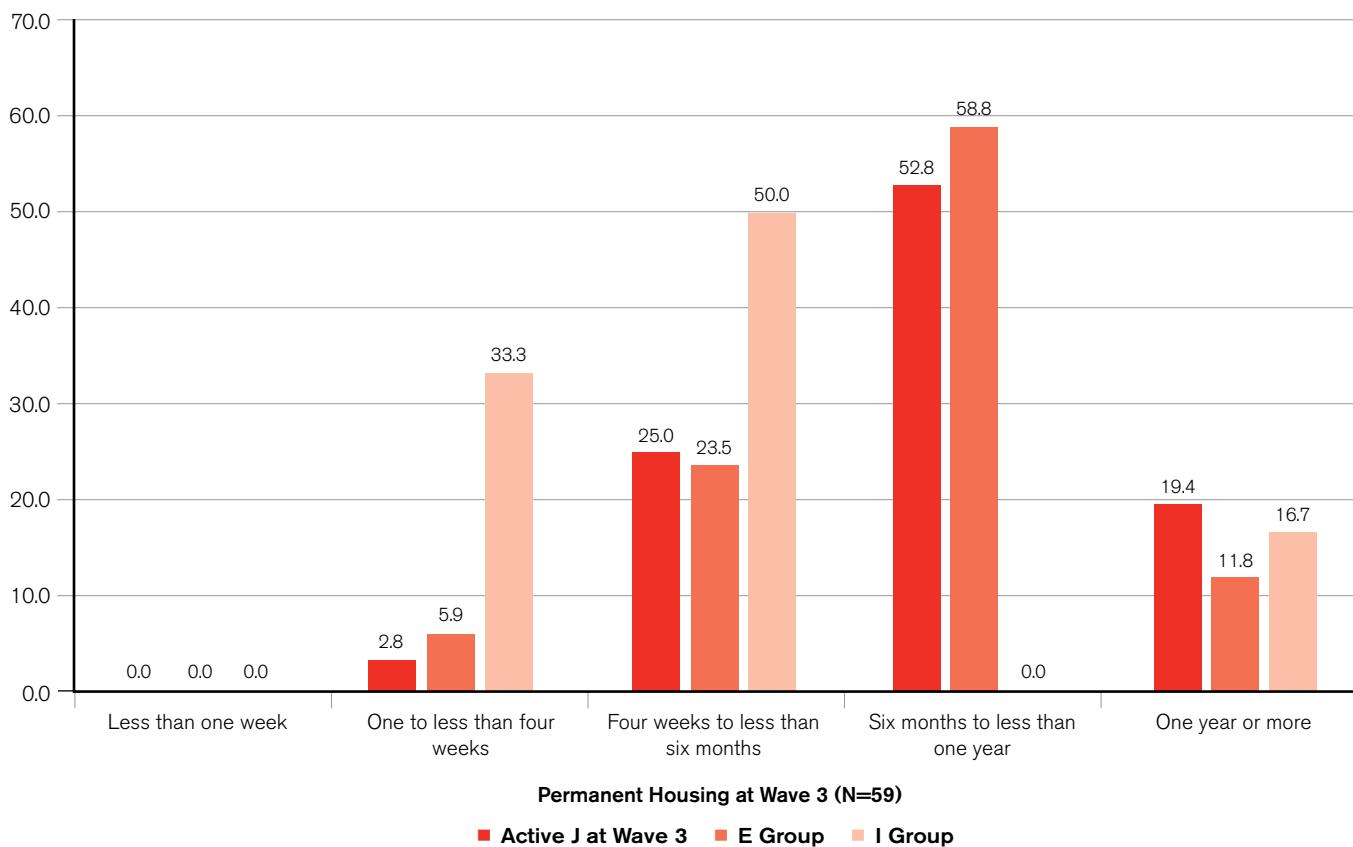
(c) Less than five respondents

Source: J2SI Phase 2 Baseline and Wave 3 Survey

Examining housing outcomes for the 14 inactive J2SI group participants, 7.1% were in permanent housing at Baseline, while 42.9% were in permanent housing at Wave 3. It is difficult to draw any concrete conclusions about the inactive J2SI group participants as we do not always know the reason that they became inactive. However, we know that 8 participants moved out of the service delivery area in the three months after their Baseline surveys. Therefore, it is possible that a proportion of the inactive J2SI group moved out of inner Melbourne, the catchment area of the J2SI program, to housing.

Participants were asked about the length of time that they have been in the type of accommodation in which they resided during the week prior to their survey (see Figure 3). At Baseline, 50.0% of the sample who reported that they were in permanent housing said they had been there for more than four weeks but less than six months. At Wave 3, 49.2% of the permanently housed had been in permanent housing for 6 to 12 months, indicating strong retention of housing at one year relative to Baseline. Of those who were not permanently housed at Baseline, 19.7% had been in the same state for one year or more; at Wave 3, 30.7% of those not in permanent housing

**Figure 3: Length of time residing in current permanent housing at Wave 3 (week prior to survey) by program participant status at Wave 3**



Source: J2SI Phase 2 Baseline and Wave 3 Survey

had been in their accommodation for one year or more. Chronic homelessness is very difficult to overcome as it is often preceded by issues around mental health, trauma, substance abuse, and poor quality social ties, which are then compounded by experiences on the street.

It is important to note that participants who were considered permanently housed at Baseline were at high risk of eviction as per the eligibility criteria of the study. Additionally, 16.9% of those who were permanently housed at Wave 3 reported residing in their accommodation for one year or more. There are a few reasons for this. Firstly, a few individuals who were in public housing at Baseline, remained in public housing at least until Wave 3. Secondly, some people were housed soon after their entry into the J2SI program. Finally, due to contact difficulties not everyone completed Wave 3 exactly 12 months after Baseline. In some cases individuals completed the survey as late as 14 months after Baseline.

Overall, this speaks to the success of the housing component of the J2SI program.

Of those participants permanently housed at Wave 3, 89.8% reported that they paid rent, 8.5% reported that they paid board (but no rent), and the remaining 1.7% paid no rent, board or mortgage. Of those in homeless or institutional accommodation, 23.4% paid no rent, board or mortgage, 67.2% paid rent and 9.4% paid board (but no rent).

A critical element that determines the suitability of accommodation and, therefore, an individual's likelihood of sustaining their tenancy is the degree to which they feel safe in it (Goering, Paduchak & Durbin, 1990; Pearson, Montgomery & Locke, 2009). The objective of the J2SI program is to facilitate the attainment and sustainment of permanent housing. Accordingly, J2SI Phase 2 research study participants were asked about the extent of time in which they felt safe in the

**Table 7: Extent of time participants have felt safe in their accommodation, by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

	Baseline Sample (N=180)			Matched Sample (N=134)					
	Housed but at risk of homelessness (a) (N=14) (%)	Homelessness and institutional living (b) (N=166) (%)	Total sample (N=180) (%)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)		Total sample (N=134)	
				Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)
None of the time	14.3	18.1	17.8	13.6	3.4	17.3	9.3	15.7	6.7
A little of the time	7.1	15.1	14.4	10.2	8.5	21.3	10.7	16.4	9.7
Some of the time	21.4	20.5	20.6	25.4	10.2	13.3	17.3	18.7	14.2
Most of the time	35.7	26.5	27.2	39.0	22.0	24.0	25.3	30.6	23.9
All of the time	21.4	19.9	20.0	11.9	55.9	24.0	37.3	18.7	45.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

### **Box 1: Delivering the Journey to Social Inclusion program: Staff perspectives**

A critical component of the J2SI Phase 2 research study is to understand from the perspectives of staff delivering the program, as well as clients receiving the support and the successes and challenges of implementing the program. The research team conducted focus groups and interviews with key Sacred Heart Mission staff and Intensive Case Managers (ICMs) six months into the program. The aims of these interviews were to:

- Capture staff perceptions of the J2SI Phase 2 model, particularly their experiences delivering a trauma-informed intervention;
- Explore staff perceptions of the differentiating factors between the J2SI Phase 2 model and standard homelessness support services;
- Discuss challenges that staff or participants have faced in the J2SI Phase 2 program; and,
- Explore staff perceptions of the impact of the intervention to date.

#### **Key strengths of the J2SI program from the perspective of staff:**

##### **Smaller caseloads**

ICMs found the smaller-than-usual caseloads to be mutually beneficial, as case workers felt that they were able to do their job effectively and clients benefited from the formation of reparative relationships from the implementation of the relationship-based, trauma-informed approach.

##### **More time to engage**

Both the longer duration of support (up to 3 years) for clients and the greater amount of time ICMs have on a

weekly basis to engage with their clients were raised as key strengths of the J2SI program that differentiated it from other Specialist Homelessness Service programs. This comparatively longer and more concentrated time to engage was cited as key to relationship building and the establishment of trust between ICMs and clients, as well as allowing for greater embeddedness of strategies for clients to achieve their goals.

##### **Stronger relationships**

Staff indicated that the two factors mentioned above (more time to engage and smaller caseloads) culminated in the development of strong staff-client relationships. In particular, the absence of pressure to meet specific goals in strictly defined timelines allowed for the development of relationships to occur at their own pace, which is critical given the individual and contextual differences amongst the cohort.

*“...by the time people are sleeping rough it wasn’t a bad week that brought them to that point. There are a whole lot of things that have happened for a long period of time. They’re not going to be remedied with a three-month intervention of one hour a week. So my experience has been that relationship is primary”.*

##### **Client autonomy and independence**

The focus of the J2SI Phase 2 program on clients' capabilities and interests with the view to building the necessary skills for independent living, rather than focusing on achieving discrete outcomes, such as rapid housing, was identified as a key strength of the program. Staff articulated that they believed this more holistic view would be more effective for sustaining independence and housing in the longer term.

## **Key challenges of the J2SI program from the perspective of staff include:**

### **Recruitment**

Intensive Case Managers (ICMs) felt that it would have been beneficial if they had all been employed and trained at the same time, particularly as caseloads varied and deviated from the intended 6:1 ratio in the initial stages of the program.

### **Involvement in a research study**

Though the staff acknowledged the importance of the research study in evaluating the J2SI Phase 2 program, they did find the administrative aspects of the study, such as increased paperwork, challenging.

### **Maintaining boundaries**

Staff indicated that working so closely with clients enabled them to support their clients more effectively toward positive outcomes; however, it also raised the importance of maintaining professional boundaries and looking after their own mental health.

As part of the J2SI program, staff received training on trauma-informed practice. ICMs felt positively about their experience in engaging in trauma-informed practice:

- The trauma training was valued as both a professional development experience and as improving their ability to do their job;
- ICMs felt they had better understanding of clients' context and their current behaviours in light of that context;
- ICMs felt their awareness of trauma and its effects was crucial to their building of meaningful and trusting relationships with clients; and
- The trauma-informed approach allowed for a more holistic view and greater patience in 'unpacking' a client's story.

While it was acknowledged that the program is still very much in its early days, ICMs observed the following positive outcomes for clients at the 6-month mark:

- Strong, trusting relationships being built between clients and ICMs;
- Good client engagement;
- Conversations becoming strength-based, rather than deficit-focused;
- Discussion regarding planning pathways into employment or education; and,
- Entry into permanent housing for some participants.

accommodation they had resided in during the last month. The proportion of participants in each time category is presented in Table 7.

In the full Baseline sample and across both time points of the matched sample, permanently housed participants were more likely to report they felt safe most or all of the time. The strength of the positive relationship between permanent housing and a feeling of safety in their accommodation increased over the period from Baseline to Wave 3. At Wave 3, 55.9% of those in permanent housing reported that they felt safe all of the time. Only 11.9% of these respondents reported that they felt safe all of the time at Baseline – a 44% increase between the two time points.

There were no marked differences between J2SI program participants and those receiving services as usual in the proportion of time that they felt safe in their accommodation.

Interestingly, over half of the respondents who were not in permanent housing felt safe most or all of the time at Wave 3. Breaking down the extent of time to which those not in permanent housing felt safe by their accommodation type, a relatively large proportion of those staying in temporary accommodation and those staying with friends and or family the week prior to survey felt safe all of the time. Therefore, while many non-permanent accommodation situations are inherently unsafe (e.g., rough sleeping), instability of tenancy is not necessarily synonymous with a lack of perceived safety.

In summary, consistent with the goals of the first year of the J2SI Phase 2 program, the housing domain is where the most change has been observed amongst J2SI Phase 2 research study respondents. The proportion of the sample that were permanently housed increased dramatically between Baseline and Wave 3, and the proportion of active J2SI group participants who moved into permanent housing was significantly higher than non-active J2SI group participants. In addition, almost half of those who were permanently housed had been in their tenancies for six months to one year. Finally, a greater proportion of the sample, and particularly the permanently housed, reported feeling safe in their accommodation ‘all the time’.

## 5. Health

The prevalence of certain physical and mental health conditions, including alcohol and other drug use, are higher amongst the homeless population, particularly among people who are chronically homeless (Frankish, Hwang, & Quantz, 2005; Schanzer et al. 2007). These conditions present as both antecedents to and consequences of homelessness. For example, the inability to work due to chronic illness may create economic circumstances that mean an individual cannot sustain their living arrangements and becomes homeless (Rochefort, 1997). Then, while homeless, exposure to the elements may exacerbate or create illness, which is then compounded by the reality that homeless individuals are more likely to face barriers that inhibit their ability to access healthcare services to address their health needs (Hwang, 2001).

J2SI Phase 2 study participants were asked about a number of aspects of their physical and mental health and were administered validated instruments for assessing these domains of health.

**Physical health:** Selected items from the 36-item Short Form Survey (SF-36; Ware & Sherbourne, 1992); self-report general health, chronic diseases, and access to treatment and services.

**Mental health:** Kessler Psychological Distress Scale (K10; Kessler, et al., 2002); Depression, Anxiety, Stress Scales, Second Edition, Short Form (DASS21; Lovibond & Lovibond, 1996); Short Warwick-Edinburgh Mental Well-being Scale (S-WEMWBS; Tennant, et al., 2007); Single-Item Self-Esteem Scale (SISES; Robins, Handin &

Trzesniewski, 2001); self-report diagnosed mental health conditions; engagement with mental health professionals and treatment; and hospitalisation.

**Alcohol and other drug use:** Alcohol, Smoking and Substance Involvement Screening Test (ASSIST; WHO ASSIST Working Group, 2002); selected items from the Opiate Treatment Index (OTI; Darke, Hall, Wodaki, Heather & Ward, 1992); and self-report access and use of relevant services.

### 5.1 Physical health

Physical health outcomes are significantly poorer amongst the homeless population relative to the general population. Both prevalence and severity of certain physical illnesses are worse due to compounding factors related to both the entrance into and experience of homelessness, such as extreme poverty, delays in seeking medical attention, difficulty maintaining treatment and medications, and exposure to harsh environmental factors (Hwang, 2001).

A standard approach to self-assessed health is to ask respondents to categorise their general health as 'poor', 'fair', 'good', 'very good', or 'excellent'. In Australian health surveys, the majority of Australians aged 15 and over (56%) describe their health as 'excellent' or 'very good' (AIHW, 2016), which is consistent with international findings (e.g., Hernandez-Quevedo, Jones & Rice, 2004). However, among respondents in our study, only 19.4% report a very good or excellent health rating at Wave 3.

**Table 8: Self ratings of general health, by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

In general, would you say your health is:	Baseline Sample (N=180)			Matched Sample (N=134)					
	Housed but at risk of homelessness (a) (N=14) (%)	Homelessness and institutional living (b) (N=166) (%)	Total sample (N=180) (%)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)		Total sample (N=134)	
				Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)
Poor	21.4	19.9	20.0	16.9	11.9	21.3	24.0	19.4	18.7
Fair	28.6	29.5	29.4	35.6	39.0	30.7	28.0	32.8	32.8
Good	28.6	31.3	31.1	23.7	32.2	30.7	26.7	27.6	29.1
Very Good	14.3	13.9	13.9	16.9	10.2	13.3	13.3	14.9	11.9
Excellent	7.1	5.4	5.6	6.8	6.8	4.0	8.0	5.2	7.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

The comparatively low self-ratings of health amongst our sample are not surprising. Homelessness, and in particular chronic homelessness, is associated with generally poor health (Frankish, Hwang & Quantz, 2005; Schanzer, Dominguez, Shrout & Caton, 2007). Preliminary data from this study suggests that permanent housing may have a positive impact on self-assessed health. For example, as shown in Table 8, fewer permanently housed people rated their health as poor between Baseline and Wave 3. In contrast, the proportion of people who were not in permanent housing who rated their health as poor increased from 19.9% at Baseline to 24.0% at Wave 3.

However, when respondents were asked to rate their health relative to 12 months prior, no clear relationship between permanent housing and change in self-assessed health was evident. In fact, 22.0% of the permanently housed at Wave 3 reported that their health at Wave 3 was much worse than one year ago. Table 9 outlines participant ratings of their health at the time of survey

relative to one year prior. Relatively low proportions of the matched sample reported that their health was better at Wave 3 than it was a year prior, and a higher proportion of those not in permanent housing relative to those in permanent housing (9.3% versus 3.4%) reported that their health was much better at Wave 3 compared with a year prior. The proportion of respondents reporting their health as 'much worse than a year ago' increased between Baseline and Wave 3 for both J2SI program participants and those receiving services as usual, while the proportion reporting their health as 'much better than one year ago' decreased. It is important to note that health service utilisation can often initially increase when a formerly homeless person is stably housed (Zaretzky & Flatau, 2015). Therefore, these results may mean that those in permanent housing are accessing healthcare more frequently or regularly and are therefore becoming more aware and/or undertaking more treatment for their ailments, which may lead to their perception of worse health relative to 12 months prior.

**Table 9: Participant ratings of health relative to 12 months prior to survey, by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

Compared to one year ago, how would you rate your general health now?	Baseline Sample (N=180)			Matched Sample (N=134)					
	Housed but at risk of homelessness (a) (N=14) (%)	Homelessness and institutional living (b) (N=166) (%)	Total sample (N=180) (%)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)		Total sample (N=134)	
				Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)
Much better than a year ago	14.3	14.5	14.4	15.3	3.4	12.0	9.3	13.4	6.7
Somewhat better than a year ago	35.7	18.1	19.4	11.9	13.6	25.3	18.7	19.4	16.4
About the same	14.3	32.5	31.1	40.7	40.7	26.7	40.0	32.8	40.3
Somewhat worse than a year ago	28.6	22.3	22.8	22.0	20.3	24.0	18.7	23.1	19.4
Much worse than a year ago	7.1	12.7	12.2	10.2	22.0	12.0	13.3	11.2	17.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

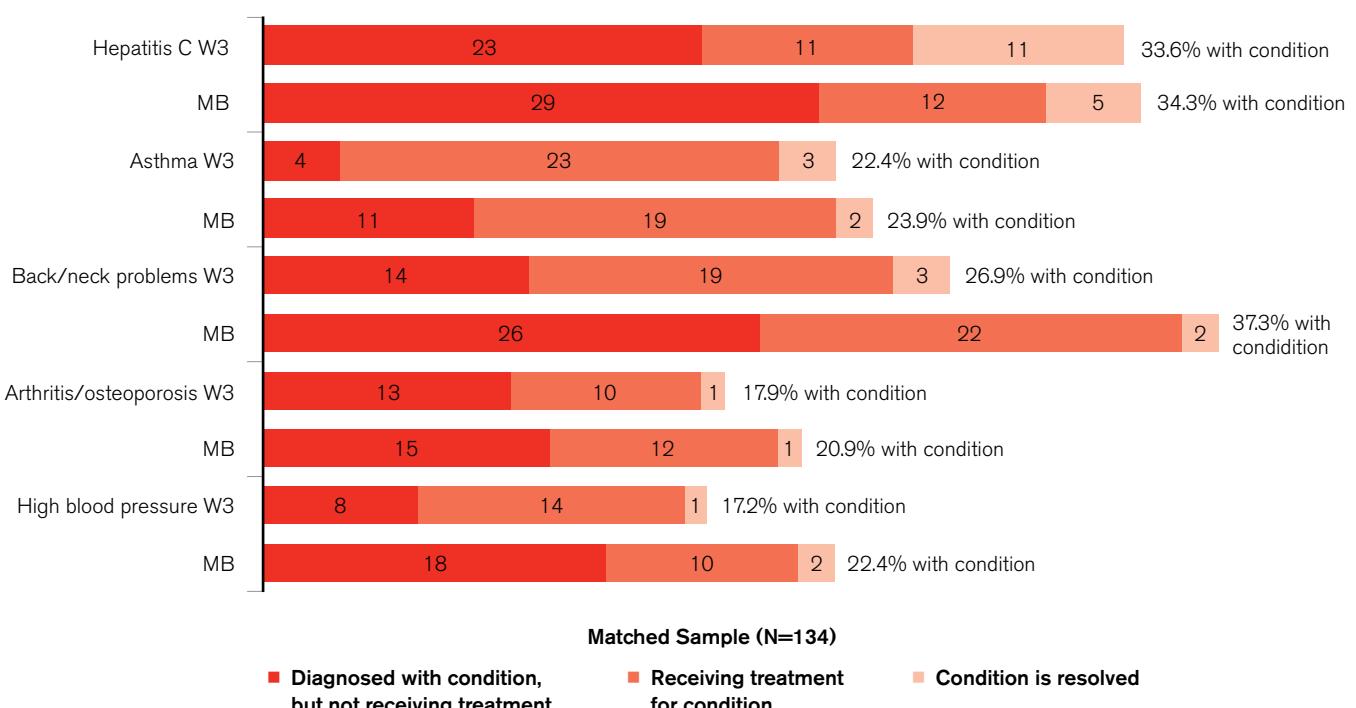
Figure 4 reports the prevalence of common chronic medical conditions reported by study respondents. The incidence of chronic medical conditions is very high among study participants relative to the general Australian population in the age group in question. This is particularly true of Hepatitis C, which was reported by one-third of study participants. This condition is relatively rare in the Australian population (0.98%; The Kirby Institute, 2015).

In many cases, the Wave 3 results indicate that chronic medical conditions are being treated or have been resolved. However, in other cases, chronic medical conditions remain untreated. Importantly, the extent of reported chronic medical conditions fell for the matched sample from Baseline to Wave 3, as did the extent to which a particular medical condition remained untreated. For example, 52% of the Matched Baseline sample

reported they had back/neck problems that were not getting treatment. Not only did the overall proportion of the sample reporting that they had back/neck problems decrease from 37.3% at Baseline to 26.9% at Wave 3, the proportion with the problem that were not getting treated also decreased from 52.0% to 38.8%. This pattern is evident across all chronic conditions depicted in Figure 4. This suggests that, on the whole, an improvement in treatment coverage and impact is evident.

The same pattern is evident with respect to health conditions likely to last more than six months, where the prevalence of the health condition declined across all conditions listed from the Baseline to Wave 3 (Figure 5). Similarly, access to healthcare improved from Baseline to Wave 3. The prevalence of blackouts fell dramatically between Baseline and Wave 3, while the rate of non-

**Figure 4: Number and proportion of respondents reporting selected chronic health conditions, by treatment status, at Baseline and Wave 3, Matched Baseline (MB) and Wave 3 (W3) Matched Sample**



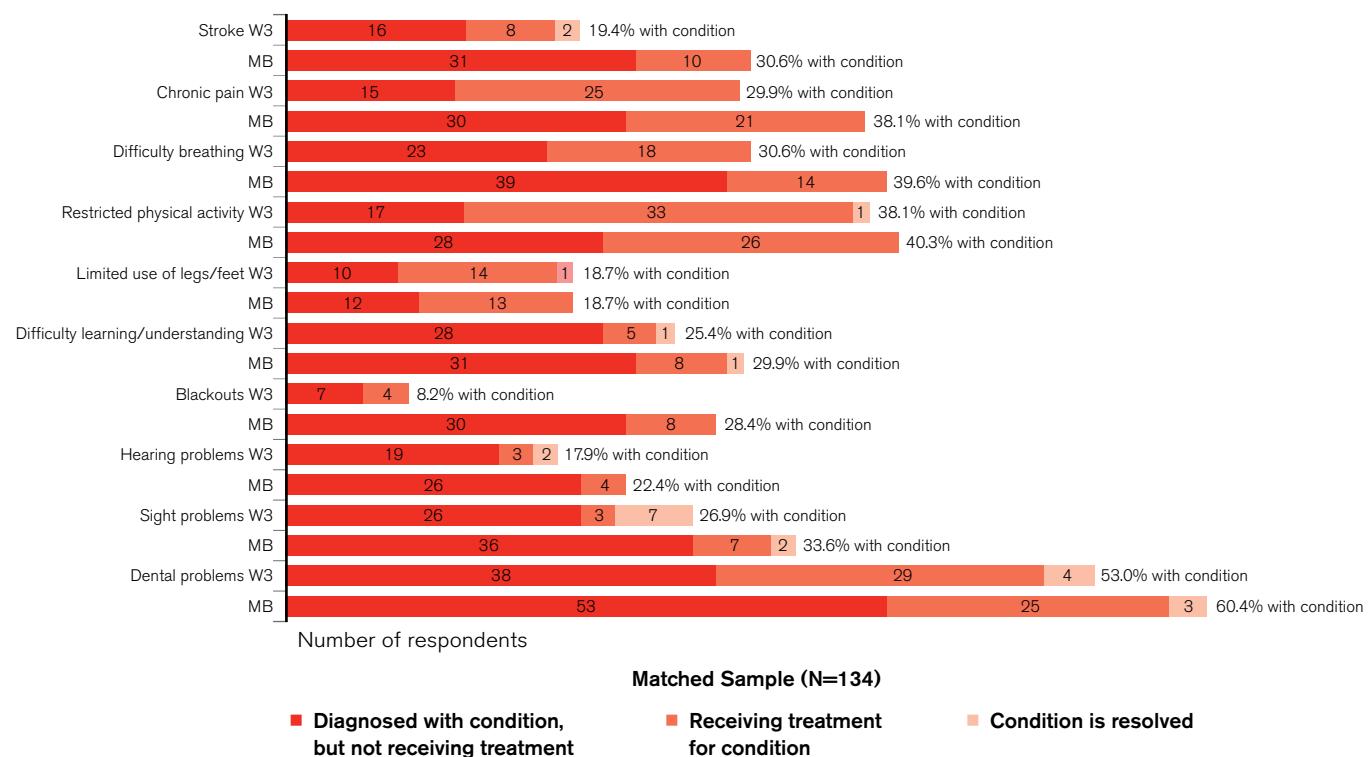
Source: J2SI Phase 2 Baseline and Wave 3 Survey

treatment of health condition fell dramatically for dental problems, strokes, and sight and hearing problems. The decrease in prevalence and non-treatment of chronic medical conditions and persistent health conditions between Baseline and Wave 3 may suggest that homelessness services, hospitals and healthcare providers are working collaboratively to address health conditions in this population.

A question on the prevalence and treatment of acquired brain injury (ABI) was included in the Wave 3 survey (Table 8). Over one fifth of the overall Wave 3 sample (21.6%) reported that they had been diagnosed with ABI, with prevalence higher (25.3%) amongst those in homelessness and institutional living arrangements.

In addition, most of those with ABI were not receiving rehabilitative or support services for it. The Australian Institute of Health and Welfare estimated that 1 in 45 Australians were living with Acquired brain injury in 2007 (AIHW, 2007). In 2015-16, over 11,000 disability service users captured in the National Disability Services Minimum dataset were categorised with ABI as their primary disability (AIHW 2017). Therefore, prevalence of ABI is much higher in the J2SI research study sample, particularly amongst those not in permanent housing. This may indicate that ABI is a barrier to obtaining permanent housing. This is consistent with the literature, which finds that ABI is associated with mental health and drug problems amongst homeless people (Hwang et al., 2008; Mackelprang et al., 2014), that ABI is a barrier to economic

**Figure 5: Number of respondents reporting selected health conditions likely to last 6 months or more, by treatment status, at Baseline and Wave 3, Matched Baseline (MB) and Wave 3 (W3) Matched Sample**



Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Table 10: Prevalence and treatment status of self-reported acquired brain injury (ABI), by permanent housing status, at Wave 3, Wave 3 Sample**

	Housed but at risk of homelessness (a)		Homelessness and institutional living (b)		Total Wave 3 sample	
	N	%	N	%	N	%
Diagnosed with acquired brain injury	10	16.9	19	25.3	29	21.6
Receiving treatment	3	5.1	4	5.3	7	5.2
Not receiving treatment	7	11.9	14	18.7	21	15.7
It is resolved	0	0.0	1	1.3	1	0.7
No diagnosis of acquired brain injury	49	83.1	56	74.7	105	78.4
<b>Total</b>	<b>59</b>	<b>100.0</b>	<b>75</b>	<b>100.0</b>	<b>134</b>	<b>100.0</b>

(a) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short-to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(b) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

participation (Van Velzen, 2009), and that the housing needs of those with ABI may be more complex than the general homeless population (Gilchrist & Morrison, 2005). International literature finds that the prevalence of acquired brain injury is significantly higher amongst the homeless population than the general population (Hwang et al., 2008; Topolovec-Vranic et al., 2012). This is an understudied topic in Australia and our results indicate there may be a high prevalence of ABI amongst chronically homeless people.

Overall, physical health outcomes are generally poor amongst J2SI research study participants. This is unsurprising given the chronicity of homelessness experienced by the cohort. There is, however, some early indication treatment seeking is increasing and that prevalence of chronic and persistent illness is decreasing.

## 5.2 Mental health

Serious mental health issues are prevalent amongst the homeless population (Fazel, Khosla, Doll, & Geddes, 2008; Nielssen et al., 2018). These issues are compounded by the heavy toll that homelessness takes on mental wellbeing and quality of life, and homelessness itself is a substantial cause of psychological distress (Goodman, Saxe & Harvey, 1991).

As mentioned previously, the J2SI Phase 2 longitudinal surveys include a number of measures of mental wellbeing, including the Kessler Psychological Distress Scale (K10) and Depression, Anxiety and Stress Scales (DASS21). The K10 measures psychological distress experienced in the previous four weeks (Kessler, et al., 2002), while the DASS21 indicates the degree of severity of depression, anxiety, and tension/stress over the previous week (Lovibond & Lovibond, 1996). Figure 6 presents K10 scores for respondents at Baseline and Wave 3 for the matched sample of respondents who completed both waves. Results are broken down by housing status. At Baseline, K10 scores are equal for those in permanent housing at Wave 3 and those not in permanent housing. As is evident in Figure 6, K10 scores improved for both groups between Baseline and Wave 3. However, the largest drop in psychological distress

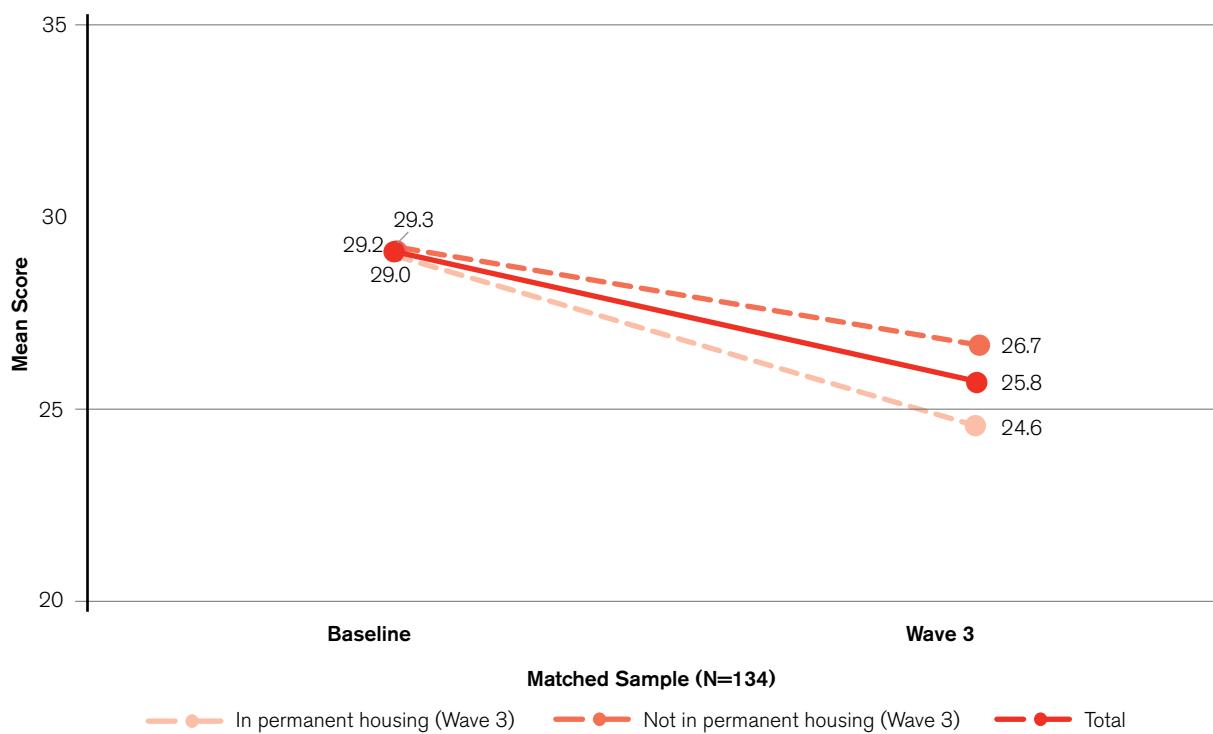
occurs for the permanent housing group, with a 4.5-point drop in psychological distress compared with a 2.5-point drop for those not in permanent housing.

Figure 7 indicates the change in level of distress on the K10 from Baseline to Wave 3. At Wave 3, more participants reported low distress while there was a large reduction in the number of participants who reported very high distress. The distribution across the distress categories at Wave 3 is similar between J2SI program participants and those receiving services as usual. Forty percent of the J2SI program participants reported very high distress, compared with 35% of those receiving services as usual. Those in low distress represented 13% and 18% of the J2SI program participant sample and services as usual sample, respectively. Equal proportions of J2SI program participants and services as usual participants reported moderate and high distress.

The DASS21 findings in regard to depression (Figure 8), anxiety (Figure 9) and stress (Figure 10) are similar to the findings for the K10. The graphs indicate improvement from Baseline to Wave 3 in those experiencing 'extremely severe' depression, anxiety and stress, with a higher proportion of participants falling into the 'normal' range.

Table 11 presents the DASS21 findings for the whole sample at Baseline, as well as the Matched Baseline and Wave 3 sample, broken down by housing status (permanent housing versus homelessness and institutional living arrangements). Respondents' mean scores in the matched sample decreased across all three dimensions of the DASS21 – depression, anxiety and stress, for both those in permanent housing and those not in permanent housing. A slightly higher proportion of those not in permanent housing at Wave 3 were in the 'normal' or 'mild' categories for depression at Wave 3; a higher proportion of those in permanent housing than those not in permanent housing had 'normal' levels of anxiety and stress. A slightly lower proportion of the not permanently housed than the permanently housed at Wave 3 reported 'extremely severe' depression, anxiety and stress. As with the K10, the distribution across categories of depression, anxiety and stress were similar for J2SI program participants and those receiving services as usual.

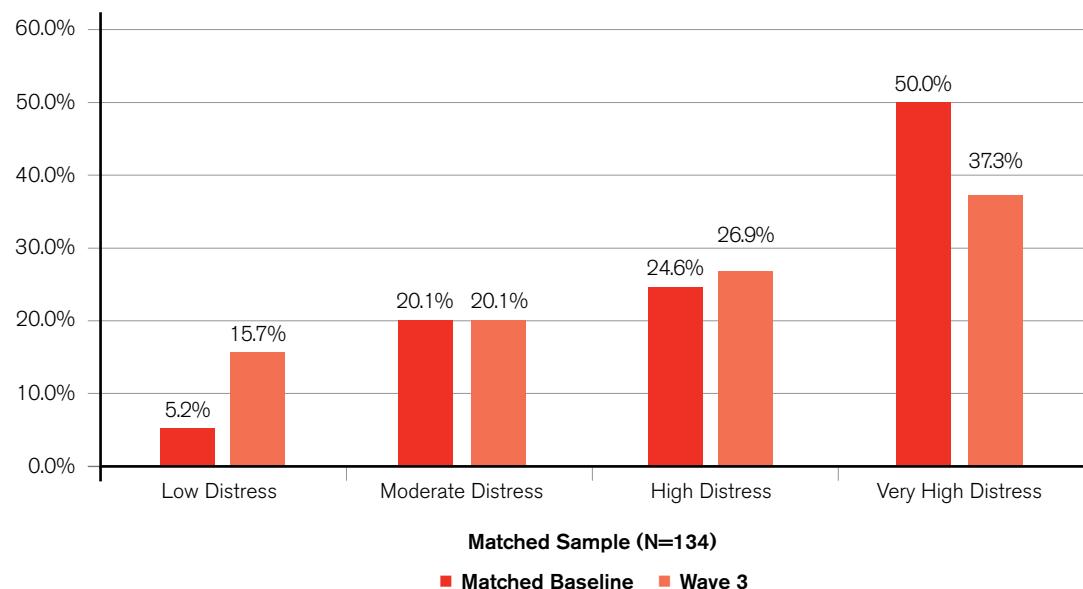
**Figure 6: Mean K10 Scores by permanent housing status at Wave 3, Matched Sample**



- (a) Permanent housing at Wave 3 includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.
- (b) Not in permanent housing at Wave 3 includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

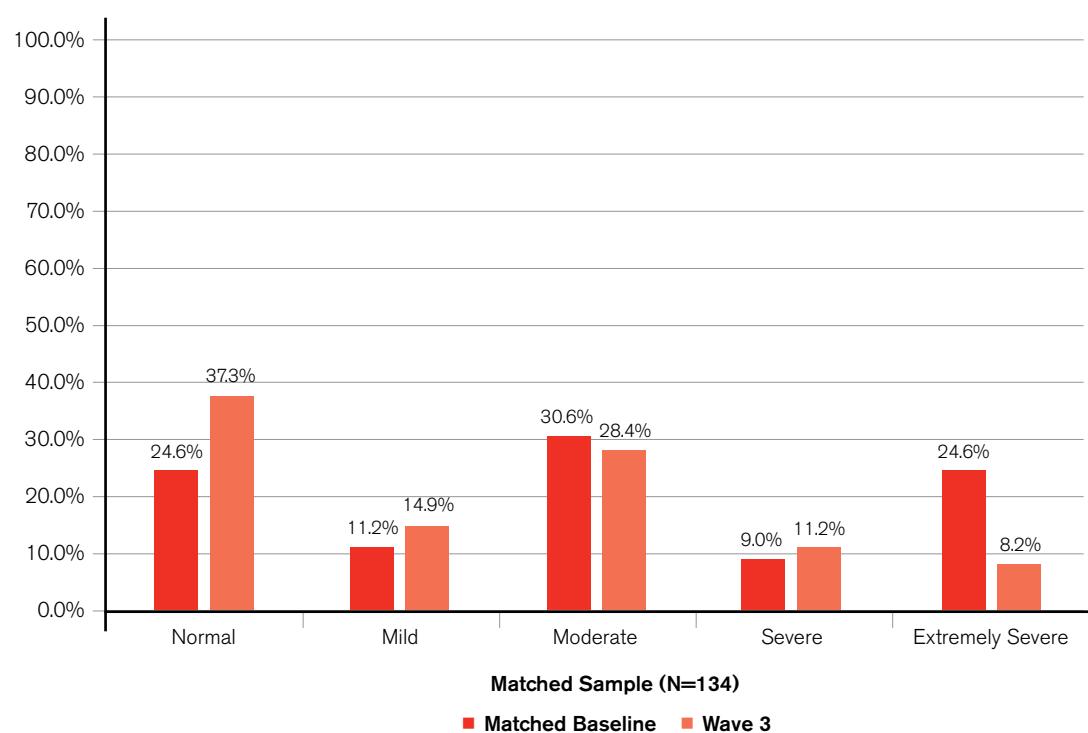
Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Figure 7: Percentage of sample experiencing psychological distress as measured by the K10 at Baseline and Wave 3, Matched Sample**



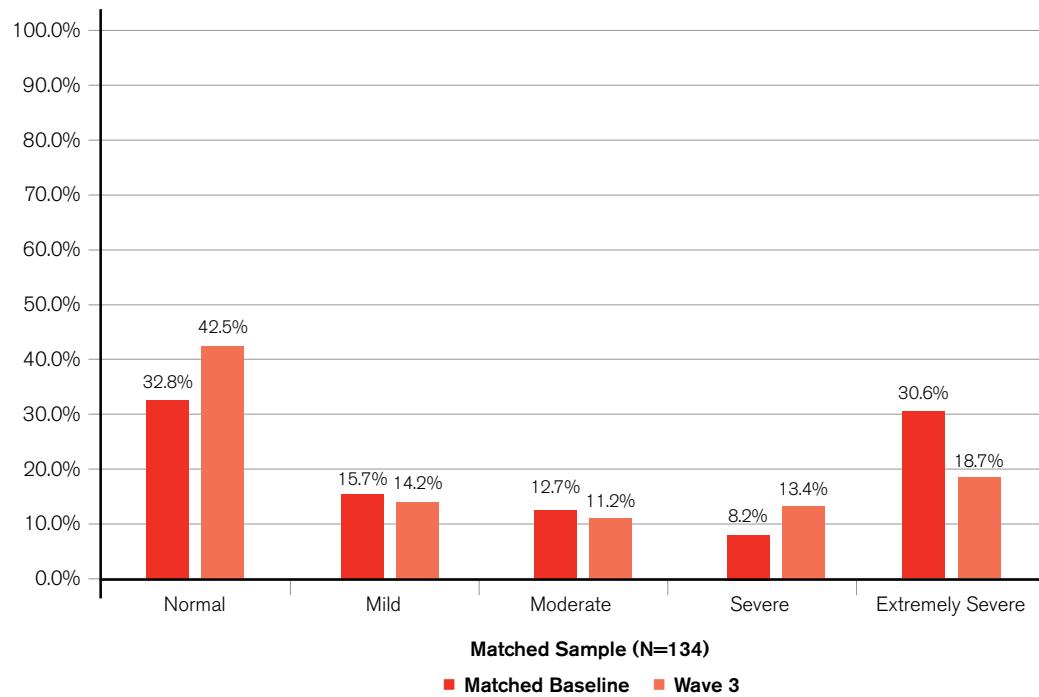
Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Figure 8: Percentage of sample experiencing depression as measured by the DASS21 at Baseline and Wave 3, Matched Sample**



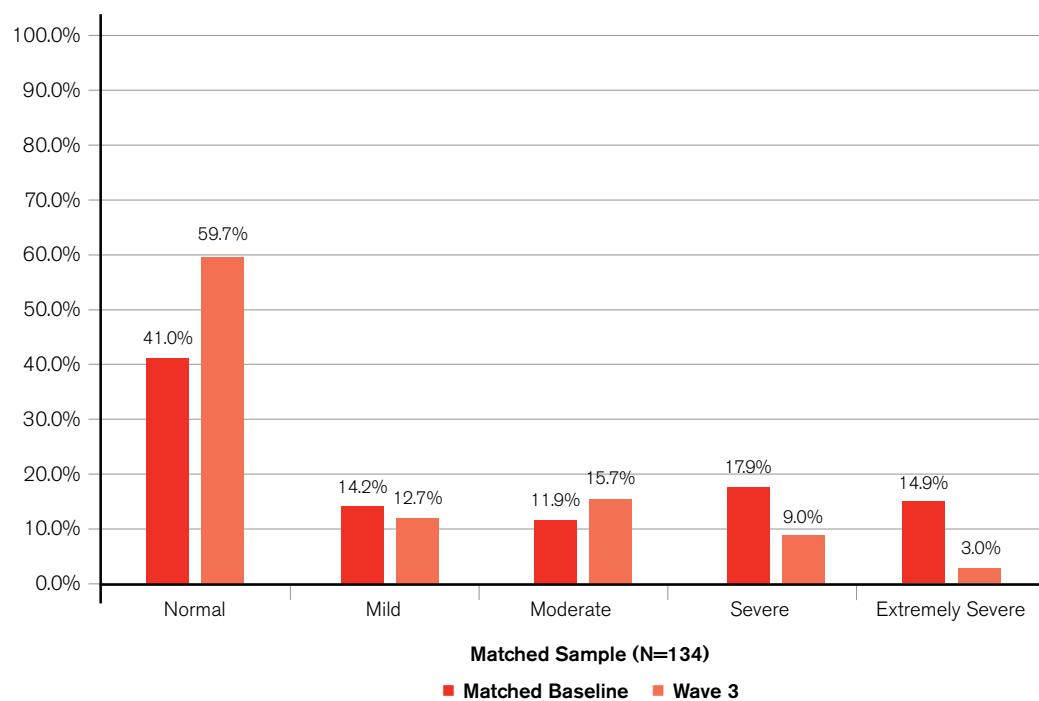
Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Figure 9: Percentage of sample experiencing anxiety as measured by the DASS21 at Baseline and Wave 3, Matched Sample**



Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Figure 10: Percentage of sample experiencing stress as measured by the DASS21 at Baseline and Wave 3, Matched Sample**



Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Table 11: Mean DASS21 Scores, by anxiety, depression and stress, by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

Baseline Sample (N=180)			Matched Sample (N=134)					
Housed but at risk of homelessness (a) (N=14)	Homelessness and institutional living (b) (N=166)	Total sample (N=180)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)		Total sample (N=134)	
			Baseline	Wave 3	Baseline	Wave 3	Baseline	Wave 3
<b>Depression</b>								
<b>Mean Score</b>	<b>18.9</b>	<b>18.9</b>	<b>18.9</b>	<b>18.8</b>	<b>12.7</b>	<b>17.5</b>	<b>12.9</b>	<b>18.1</b>
% Normal	28.6	24.1	24.4	22.0	37.3	26.7	37.3	24.6
% Mild	14.3	10.8	11.1	13.6	11.9	9.3	17.3	11.2
% Moderate	14.3	27.1	26.1	28.8	32.2	32.0	25.3	30.6
% Severe	14.3	9.0	9.4	8.5	10.2	9.3	12.0	9.0
% Extremely Severe	28.6	28.9	28.9	27.1	8.5	22.7	8.0	24.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Anxiety</b>								
<b>Mean Score</b>	<b>14.1</b>	<b>14.2</b>	<b>14.2</b>	<b>12.2</b>	<b>9.9</b>	<b>14.4</b>	<b>11.1</b>	<b>13.4</b>
% Normal	42.9	30.1	31.1	35.6	47.5	30.7	38.7	32.8
% Mild	7.1	15.1	14.4	18.6	13.6	13.3	14.7	15.7
% Moderate	7.1	12.7	12.2	15.3	11.9	10.7	10.7	12.7
% Severe	14.3	8.4	8.9	8.5	6.8	8.0	18.7	8.2
% Extremely Severe	28.6	33.7	33.3	22.0	20.3	37.3	17.3	30.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Stress</b>								
<b>Mean Score</b>	<b>19.4</b>	<b>19.4</b>	<b>19.4</b>	<b>18.9</b>	<b>13.5</b>	<b>19.1</b>	<b>14.4</b>	<b>19.0</b>
% Normal	50.0	38.0	38.9	42.4	66.1	40.0	54.7	41.0
% Mild	14.3	13.9	13.9	16.9	10.2	12.0	14.7	14.2
% Moderate	0.0	14.5	13.3	8.5	11.9	14.7	18.7	11.9
% Severe	21.4	18.7	18.9	20.3	8.5	16.0	9.3	17.9
% Extremely Severe	14.3	15.1	15.0	11.9	3.4	17.3	2.7	14.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

The severity of psychological distress, as measured on the K10 and DASS21 generally decreased between Baseline and Wave 3 amongst the matched sample of J2SI study participants. The proportion of respondents with a high level of distress across the dimensions of the K10 and DASS21 decreased. However, over one-third of the matched sample were still highly distressed at Wave 3. A greater proportion of the sample were in the 'normal' range in the stress and anxiety domains on the DASS21 (59.7% and 42.5% of the sample, respectively). While the proportion of those in the 'extremely severe' category of depression declined from 24.6% at Baseline to 8.2% at Wave 3, just under half of the sample (47.8%) were experiencing at least 'moderate' depression.

### **5.3 Alcohol and other drug use**

Substance abuse is highly prevalent amongst the homeless population; drug use is related to first homeless episode and experiences of homelessness predict both alcohol and drug abuse, creating a dangerous cycle (Johnson, Freels, Parsons, & Vangeest, 1997). The WHO Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) is a scale developed to detect substance use problems (WHO ASSIST Working Group, 2002). The ASSIST instrument was included in the J2SI Phase 2 Baseline survey to assess the frequency of use and risk scores associated with tobacco, alcohol and other drugs. Table 12 presents estimates of the proportion of respondents in the ASSIST high-risk use category for the substance in question. At Baseline, over one-fifth of the matched sample were in the high-risk category for use of tobacco products, amphetamines and opiates. The proportion of the sample in the high-risk category for alcohol and cannabis was also quite high, at 13.4% and 12.7%, respectively.

Comparing the results between Baseline and Wave 3, there was little improvement for the matched sample in terms of tobacco, alcohol and cannabis in terms of high-risk use. However, there was considerable improvement in amphetamine and opioids use, illustrated in Figures 11 and 12. High-risk use of amphetamines dropped from 21.6% in the study sample at Baseline to 12.7% at Wave 3. Likewise, high-risk use of opioids dropped from 23.9% at Baseline to 11.9% at Wave 3.

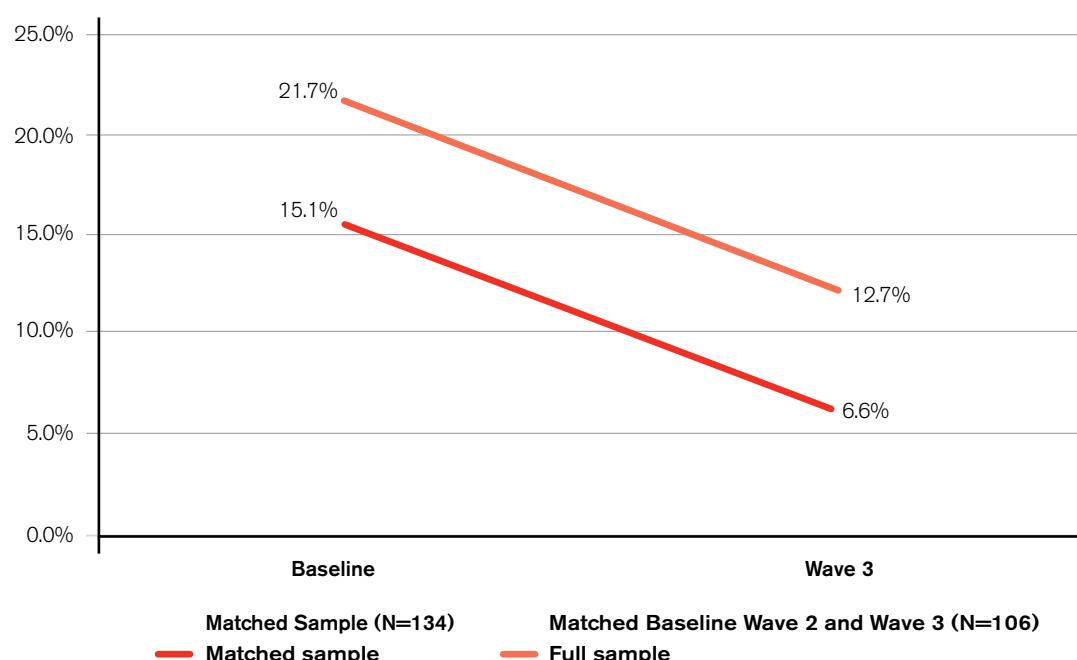
A large number of respondents reported accessing AOD treatment facilities (see Table 13). Methadone maintenance treatment was the most prevalent treatment option cited, with around a quarter of all respondents at Wave 3 utilising this intervention. Outpatient drug and alcohol counselling and Narcotics Anonymous/Alcoholics Anonymous programs were also used by many. Examining the differences between Baseline and Wave 3 amongst the matched sample, usage of outpatient drug counselling and Narcotics Anonymous/Alcoholics Anonymous increased for those in permanent housing, while inpatient/residential treatment increased for those not in permanent housing. Though very preliminary, this finding indicates that permanent housing may reduce use of hospital-based healthcare services in favour of outpatient or community-based treatment options.

While the proportion of J2SI research study participants reporting problematic use of alcohol and other drugs remains relatively high at Wave 3, the risk decreased markedly for opioids and amphetamines. In terms of accessing treatment for substance abuse issues, use of inpatient or residential facilities and methadone programs increased between Baseline and Wave 3 across the overall sample, and the permanently housed were more likely to access outpatient or community-based treatment options, while those in homeless and institutional living arrangements are more likely to access inpatient treatments. Those in permanent housing were also more likely to access some form of treatment, providing an early indication that permanent housing may be a meaningful foundation for addressing alcohol and other drug issues amongst chronically homeless people.

**Table 12: Number and percentage of the sample with a high level of risk on the ASSIST scale, by substance type, at Baseline and Wave 3, Baseline and Matched Samples**

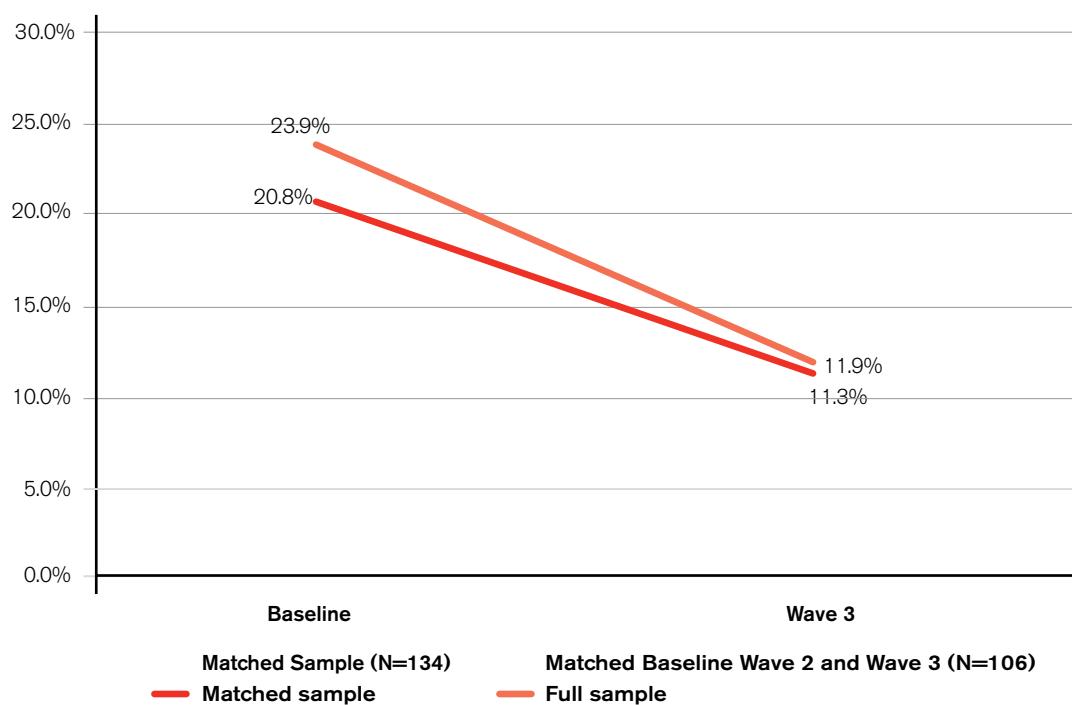
	Baseline Sample (N=180)		Matched Sample (N=134)			
	N	%	N	%	N	%
Tobacco products	40	22.2	29	21.6	19	14.2
Alcoholic beverages	33	18.3	18	13.4	18	13.4
Cannabis	24	13.3	17	12.7	17	12.7
Cocaine	<5	-	<5	-	0.0	0.0
Amphetamines	39	21.7	29	21.6	17	12.7
Inhalants	0.0	0.0	0.0	0.0	0.0	0.0
Sedatives or sleeping pills	14	7.8	10	7.5	6	4.5
Hallucinogens	<5	-	<5	-	<5	-
Opioids	43	23.9	32	23.9	16	11.9

Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Figure 11: Percentage of the sample with a high level of risk on the ASSIST scale for amphetamine-type stimulants, at Baseline and Wave 3, Baseline and Matched Samples**

Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Figure 12: Percentage of the sample with a high level of risk on the ASSIST scale for opioids, at Baseline and Wave 3, Baseline and Matched Samples**



Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Table 13: Proportion of the sample accessing selected drug and alcohol treatment services in the six months prior to survey, by type of treatment facility, by permanent housing status at Baseline and Wave 3, Baseline and Matched Samples**

	Baseline Sample (N=180)		Matched Sample (N=134)					
	Housed but at risk of homelessness (a) (N=14) (%)	Homelessness and institutional living (b) (N=166) (%)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)		Total sample (N=134)	
			Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)
Inpatient/residential detoxification	14.3	8.4	13.6	12.0	4.0	11.5	8.2	11.7
Home detoxification (supervised)	0.0	1.2	3.4	2.1	0.0	0.0	1.5	0.9
Home detoxification (unsupervised)	7.1	7.2	10.2	6.4	5.3	5.0	7.5	5.6
Naltrexone treatment	14.3	3.6	6.8	10.4	4.0	3.3	5.2	6.5
Buprenorphine and/or suboxone treatment	7.1	12.7	11.9	14.3	13.3	9.8	12.7	11.8
Inpatient/residential therapeutic program	0.0	6.6	5.1	4.2	6.7	8.1	6.0	6.4
Methadone maintenance treatment	7.1	16.9	16.9	23.5	17.3	26.9	17.2	25.4
Outpatient drug and alcohol counselling	28.6	18.1	20.3	22.4	17.3	11.5	18.7	16.4
Narcotics Anonymous/Alcoholics Anonymous	14.3	10.8	6.8	10.2	12.0	9.8	9.7	10.0
Other	0.0	3.6	1.7	8.9	2.7	9.1	2.2	9.0

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

## 6. Health service utilisation

Homelessness creates a Catch-22 with regard to healthcare: homeless individuals are more likely to experience poor physical and mental health outcomes but more likely to encounter barriers to accessing health care treatment (Hwang et al., 2011). As a result of the circumstances of homelessness, severity of health conditions may escalate, necessitating the use of health services that are typically a 'last resort' (e.g., ED). For instance, Rodriguez et al. (2009) found that hunger, safety concerns, and desire for shelter prompted care seeking at an ED among 29% of 189 homeless persons. This is reflected in the distribution of health service utilisation among homeless individuals. Typically, a small proportion of the homeless population has very high levels of health service use and accounts for a large amount of the (very high) healthcare costs of the homeless population (Fuehrlein et al., 2015; Zaretzky et al., 2017).

The J2SI Phase 2 Baseline and Wave 3 interviews asked participants how many times they had accessed different health services in the 12-month period preceding the survey. Table 14 displays the average number of times participants used each service and the number of nights they stayed in a hospital, a mental health facility or a drug and alcohol rehabilitation centre. When considering the study sample overall, there were no notable differences in the average number of nights spent in those settings. The average number of nights spent in drug and alcohol rehabilitation centres decreased between Baseline and Wave 3; however, this number is likely to have been skewed by a few people who were admitted for a few months prior to Baseline.

Interestingly, those who were permanently housed at Wave 3 had reported fewer overnight stays in hospital at Baseline, compared to those who were not permanently housed (2.00 and 7.99, respectively). This may indicate that those who were successfully housed at Wave 3 were relatively stable in terms of other facets of their life. However, on average, they reported spending almost twice as many nights in hospital (3.92) during the 12-month period preceding Wave 3 than they did in Baseline. Conversely, those who were not permanently housed at Wave 3 reported fewer nights spent in hospital (6.36)

in the year before Wave 3, than at Baseline. This finding was somewhat surprising as we would expect permanent housing to reduce use of hospital-based services in favour of outpatient or community-based health services. There are several potential explanations for this: we don't know when in the year preceding survey administration that participants were hospitalised, so it is possible that it was when they were still homeless. Alternatively, overcoming the barrier of attaining permanent housing may have made participants more aware and able to address other barriers to positive life outcomes, such as health. Finally, these findings are derived from participants' self-reported recollections, which may not always be accurate. Acknowledging the limitations of self-report data, linked administrative will be used to investigate not only the number of hospitalisations, but also the nature of hospitalisations following housing attainment in future publications.

The J2SI Phase 2 program had an apparent marked impact on the level of health care service use. Active J participants at Wave 3 spent, on average, 2.87 nights in hospital over the previous twelve months as compared with 8.07 nights for the E group and 3.71 nights for the I group. The mean number of nights in mental health facilities at Wave 3 for J group participants (2.82) was also lower than for E group respondents (5.35) but not for I group respondents (0.14). Mean nights in drug and alcohol rehabilitation was also lower for J group respondents at Wave 3 (0.80) compared with both E group respondents (5.02) and I group respondents (2.86).

Those who were in permanent housing at Wave 3 visited a general practitioner (GP) fewer times on average in the year preceding Wave 3 than they had during the year preceding the baseline survey (11.76 and 15.65, respectively). For those who were not in permanent housing at Wave 3, there was only a slight increase in GP visits between Baseline and Wave 3 (9.61 and 10.95, respectively). This pattern was also observed for visits to a mental health professional and nights in a mental health facility. Those in permanent housing reported decreased utilisation of mental health professionals from

**Table 14: Estimated mean health service usage for the 12 months prior to survey, by selected health services, by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

Health service	Baseline Sample (N=180)				Matched Sample (N=134)				
	Housed but at risk of homelessness (a) (N=14)	Homelessness and institutional living (b) (N=166)	Total sample (N=180)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)		Total sample (N=134)	
				Baseline	Wave 3	Baseline	Wave 3	Baseline	Wave 3
General practitioner (times)	7.43	13.54	13.06	15.65	11.76	9.61	10.95	12.27	11.31
Specialist doctor (times)	0.50	1.09	1.04	0.98	1.69	0.61	1.68	0.78	1.69
Mental health professional (times)	4.93	6.80	6.65	7.41	5.81	7.17	9.32	7.28	7.78
Nurse or allied health professional (times)	4.36	4.15	4.17	1.95	2.31	5.09	4.25	3.71	3.40
Hospital admission (nights)	1.50	5.92	5.58	2.00	3.92	7.99	6.36	5.35	5.28
Mental health facility (nights)	7.64	1.81	2.27	2.47	2.14	1.69	4.37	2.04	3.39
Drug and alcohol rehab (nights)	1.64	8.46	7.93	8.20	1.31	9.09	4.16	8.70	2.90
Emergency department (times)	0.79	1.64	1.57	1.85	1.98	1.39	1.57	1.59	1.75
Outpatient (times)	2.79	1.72	1.81	1.59	1.41	1.11	1.15	1.32	1.26
Ambulance (times)	0.43	1.17	1.11	1.10	1.02	1.17	0.99	1.14	1.00
Dental services (times)	1.79	1.25	1.29	1.25	1.32	1.44	0.97	1.36	1.13

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

(d) Means for general practitioner visits at Wave 3 exclude two participants that missed the question.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

7.41 visits at Baseline to 5.81 visits at Wave 3, compared to those who were not in permanent housing reporting 7.17 visits at Baseline and 9.32 visits at Wave 3. In terms of nights spent in a mental health facility, those who were permanently housed at Wave 3 reported a slight decrease in nights (2.47 to 2.14). In contrast, those experiencing homelessness or institutional living reported almost three times as many overnight stays at a mental health facility in the year prior to Wave 3 compared to Baseline (4.37

and 1.69, respectively). No other health services utilisation differences were noteworthy by housing status between the two time points.

The mean number of hospital nights in the 12 months prior to the survey for J2SI program participants decreased from 7.97 to 2.87. For those receiving services as usual, the mean number of hospital nights increased from 3.23 to 7.24. Nights in drug and alcohol rehab decreased for

J2SI program participants, from 11.45 at Baseline to 0.80 at Wave 3. The mean nights in drug and alcohol rehab for those receiving services as usual also decreased from 6.47 to 4.61.

Compared to the rates of GP visits in the general population, GP utilisation in the Baseline and Wave 3 samples was much higher. Table 15 displays the distribution of GP visits in the year preceding each survey compared to the distribution in the general population, based on the Patient Experiences in Australia Survey (ABS, 2018b). Thirteen percent of those in Baseline and 10.6% of those in Wave 3 did not visit a GP in the year prior to the survey, compared to 17.5% of the general population. The greater usage of GP services relative

to the general population is especially evident in the proportion of those who attended more than 12 times in the year prior to the survey, 38.6% and 44.7% for Baseline and Wave 3 respectively, compared to 10.0% of the general population. These disparities are to be expected as the prevalence of physical and mental health conditions is much higher in this sample than the general population. The increased use in GP services between Baseline and Wave 3 is not necessarily alarming, as it may be that with other supports (e.g., housing), individuals are able to attend to and better manage their health conditions. This may explain the slight increase in utilisation of specialist doctors (e.g., gastroenterologist, cardiologist, obstetrician, oncologist) between time points.

**Table 15: Number of times reported visiting a general practitioner in the last 12 months by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

	Baseline Sample (N=180)				Matched Sample (N=134)				Total sample (N=134)	
	Australian population (%)	Housed but at risk of homelessness (a) (N=14) (%)	Homelessness and institutional living (b) (N=166) (%)	Total sample (N=180) (%)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)			
					Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)
Did not visit a GP	17.5	14.3	11.4	11.7	10.2	10.2	15.1	11.0	12.9	10.6
Once (annually)	13.0	0.0	1.8	1.7	0.0	3.4	2.7	8.2	1.5	6.1
Two to three times	31.4	21.4	13.3	13.9	18.6	8.5	12.3	8.2	15.2	8.3
Four to eleven times	28.2	35.7	30.7	31.1	32.2	32.2	31.5	28.8	31.8	30.3
Twelve or more	10.0	28.6	42.8	41.7	39.0	45.8	38.4	43.8	38.6	44.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

(d) General practitioner visits at Wave 3 exclude two participants that missed the question.

Source: J2SI Phase 2 Baseline and Wave 3 Survey and the Australian Bureau of Statistics' (ABS) Patient Experiences in Australia (2016-17) Survey (ABS 2018b) for the Australian population estimates of GP visits.

The estimated health costs reported in Table 16 have been calculated from the health service utilisation self-report data displayed in Table 14. The estimated average cost across all health services for the matched sample decreased slightly between Baseline and Wave 3 (\$20,458 and \$19,115, respectively). This decrease was primarily due to those who were in homelessness or in institutional living accommodation (from \$25,013 at Baseline to \$22,726 at Wave 3). For those who were permanently housed at Wave 3, this decrease was virtually non-existent (\$14,668 at Baseline and \$14,648 at Wave 3).

Interestingly, if the total health costs for active Js are compared with The E and I groups, the disparity is much larger. The estimated average health costs for active Js in the matched sample, decreased from \$27,898 at baseline to \$12,480. Conversely, those who were not active Js at Wave 3 had an increase in health service expenditure from \$14,426 at baseline to \$24,478 at Wave 3.

Although further investigation is warranted and will be conducted using the linked administrative data in future publications, this may suggest that active engagement in the J2SI Phase 2 intervention impacts healthcare costs in a positive direction.

**Table 16: Estimated mean health costs for the 12 months prior to survey, by selected health services, by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

Health service	Baseline Sample (N=180)			Matched Sample (N=134)					Total sample (N=134)
	Housed but at risk of homelessness (a) (N=14)	Homelessness and institutional living (b) (N=166)	Total sample (N=180)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)			
				Baseline	Wave 3	Baseline	Wave 3	Baseline	Wave 3
General practitioner (\$)	342	623	601	720	541	442	503	565	520
Specialist doctor (\$)	39	85	81	77	132	48	131	61	132
Mental health professional (\$)	774	1,067	1,044	1,163	913	1,126	1,463	1,142	1,221
Nurse or allied health professional (\$)	318	303	304	142	168	372	310	271	248
Hospital admission (\$)	2,820	11,133	11,094	3,760	7,361	15,015	11,957	10,059	9,933
Mental health facility (\$)	8,293	1,967	2,119	2,685	2,317	1,837	4,745	2,210	3,676
Drug and alcohol rehab (\$)	682	3,510	3,290	3,404	542	3,774	1,726	3,611	1,205
Emergency department (\$)	453	945	907	1,066	1,144	800	908	917	1,012
Outpatient (\$)	827	512	536	473	418	329	341	392	375
Ambulance (\$)	384	1,046	994	986	910	1,050	883	1,022	895
Dental services (\$)	273	191	197	192	202	220	149	208	172
<b>Total health cost (\$)</b>	<b>15,204</b>	<b>21,382</b>	<b>20,901</b>	<b>14,668</b>	<b>14,648</b>	<b>25,013</b>	<b>22,726</b>	<b>20,458</b>	<b>19,115</b>

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

(d) Means for general practitioner costs at Wave 3 exclude two participants that missed the question.

(e) Figures are in Australian dollar terms and represent per participant 12-month costs.

## 7. Economic participation

Economic participation is a crucial component of independence and success in modern life (Creed & MacIntyre, 2001). The inability to work is a major contributing factor to entrance into homelessness (Lehmann, Cass, Drake & Nichols, 2007) and presents a great barrier to exiting homelessness (Caton et al., 2005).

Table 17 reports the labour force status of respondents and the reasons for not participating in the labour market. A very small proportion (4.8%) of J2SI Phase 2 respondents were employed in the last week (i.e., worked for payment or profit) at Baseline, with the same pattern evident in the matched Baseline and Wave 3 sample. There were no improvements in employment outcomes during the first 12 months of the study for either the J2SI Phase 2 program participants or the treatment as usual group. The employment rate was slightly higher for those in permanent housing 6.8% versus 2.7%.

A quarter (25.4%) of the matched sample respondents at Baseline were unemployed i.e., they were not employed and reported they were available to work and looking for work, thus meeting the definition of unemployment. The vast majority of respondents were not in the labour force (71.2% of the permanently housed, 77.3% of those not in permanent housing, 74.6% overall) at Wave 3. It appears that 4.5% of the matched sample exited the labour force, moving from being unemployed at Baseline to not in the labour force at Wave 3. Over half of J2SI Phase 2 participants in both housing states (i.e., permanently housed and not permanently housed) reported that they were unable to work due to a health condition or disability at both the Baseline and Wave 3 time points. The proportion of those in permanent housing at Wave 3 who reported that they were unable to work due to a disability decreased from 55.9% to 49.2%.

**Table 17: Employment status in the week prior to survey, by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

	Baseline Sample (N=180)			Matched Sample (N=134)				Total sample (N=134)
	Housed but at risk of homelessness (a) (N=14) (%)	Homelessness and institutional living (b) (N=166) (%)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)			
			Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)
Employed	0.0	4.8	6.8	6.8	1.3	2.7	3.7	4.5
Unemployed	21.4	22.9	20.3	20.3	29.3	20.0	25.4	20.1
Not in labour force	78.5	71.6	71.2	71.2	69.3	77.3	70.1	74.6
Home duties	0.0	3.6	1.7	6.8	4.0	1.3	3.0	3.7
Student	0.0	0.6	1.7	3.4	0.0	2.7	0.7	3.0
Not engaged in work and not actively looking for work	21.4	10.2	11.9	11.9	9.3	17.3	10.4	14.9
Unable to work due to health condition or disability	57.1	57.2	55.9	49.2	56.0	56.0	56.0	53.0
Other - not specified	0.0	0.6	1.7	1.7	0.0	0.0	0.7	0.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

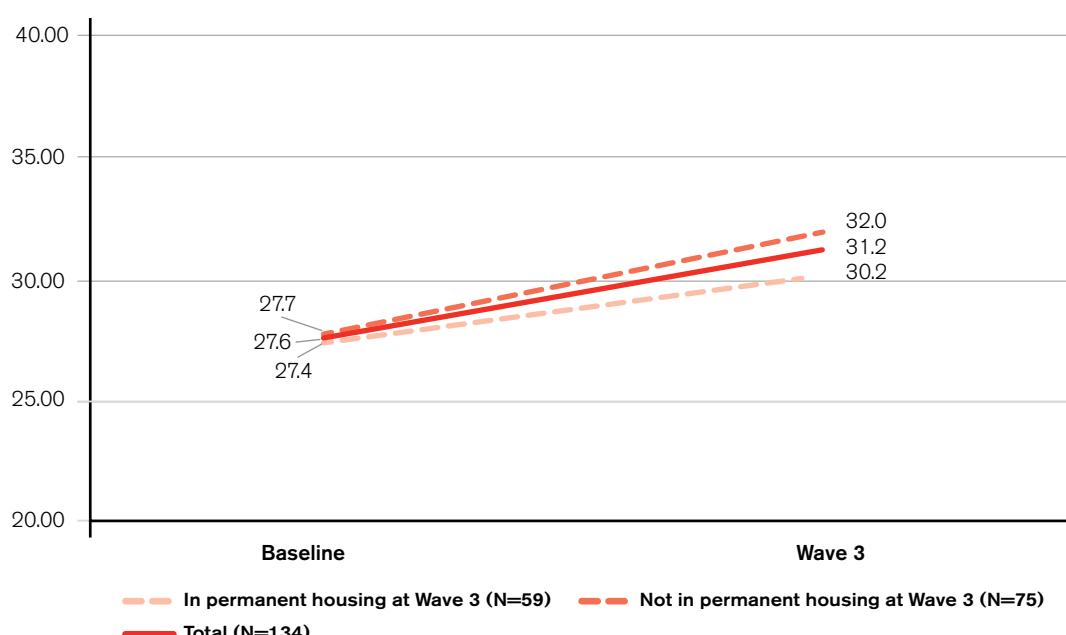
## 8. Social support

The J2SI program aims to provide the support required to not only attain but also sustain housing. A key component of this support is social support. Individuals experiencing homelessness experience high levels of social isolation (Goodman, Saxe & Harvey, 1991), and strong social support is a necessary component to avoid further entrenchment in homelessness (Grigsby, Baumann, Gregorich & Roberts-Gray, 1990). Defining strong social support is difficult as social relations may have both positive and negative sides, particularly amongst homeless and formerly homeless individuals (Padgett, Henwood, Abrams & Drake, 2008). The size of one's social network, the type and level of support they can access from that network and the level of trust one has in their social

relationships are critical components of assessing the strength of social support (Goodman, 1991).

The Scale of Social Support, developed by the J2SI pilot research team to assess the type and level of social support an individual receives outside of their relationships with case workers, was administered to J2SI Phase 2 research participants at Baseline and Wave 3. The Scale of Social Support contains seven items on a 7-point Likert scale, with a maximum possible score of 49. Figure 13, illustrates the differences in the mean social support score between Baseline and Wave 3 for the matched sample, by permanent housing status. The level of social support reported by participants increased slightly across both groups.

**Figure 13: Mean score on Scale of Social Support, by permanent housing status, at Baseline and Wave 3, Matched Sample**



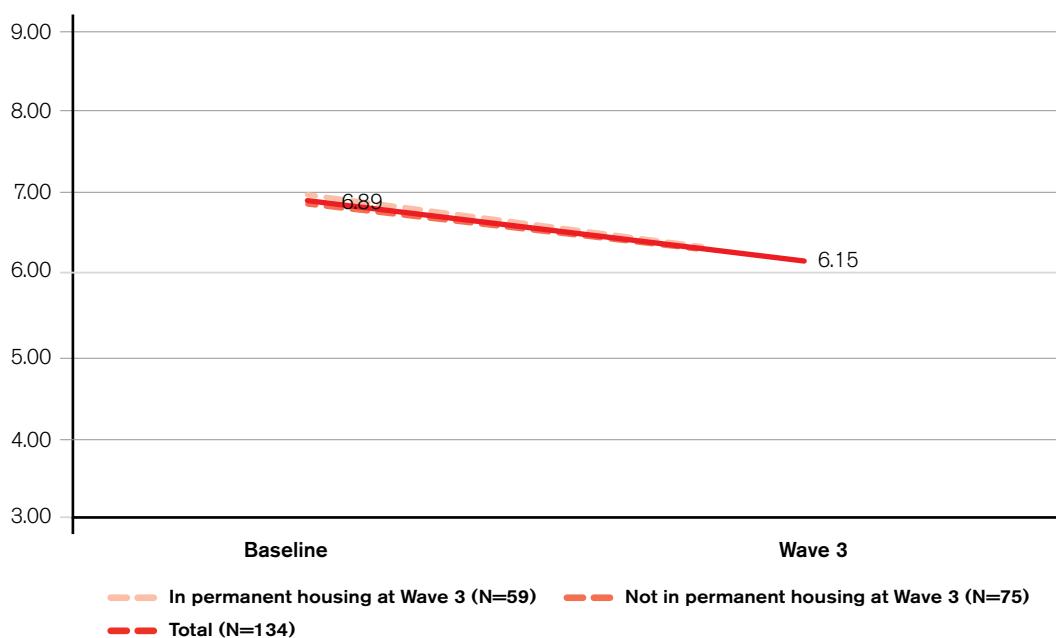
- (a) Permanent housing at Wave 3 includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.
- (b) Not in permanent housing at Wave 3 includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

J2SI Phase 2 study respondents reported high scores on the UCLA 3-item Loneliness Scale. The three items, derived from the 20-item Revised UCLA Loneliness Scale, have been statistically validated as a sound measure of overall loneliness (Hughes, Waite, Hawkley & Cacioppo, 2008). Participants are asked to identify the extent to which they feel they lack companionship, how often they

feel left out, and how often they feel isolated from others as 'hardly ever', 'some of the time' or 'often'. The maximum score on the 3-item loneliness scale is 9; at Baseline the mean score for the matched sample was 6.89. A minor reduction in loneliness was evident between Baseline and Wave 3 amongst both the permanently housed and not permanently housed Figure 14.

**Figure 14: Mean score on UCLA 3 item loneliness scale, by permanent housing status, at Baseline and Wave 3, Matched Sample**



- (a) Permanent housing at Wave 3 includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.
- (b) Not in permanent housing at Wave 3 includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

## 9. Quality of life

Stable housing is a strong predictor of increased quality of life amongst formerly homeless people (Gilmer et al. 2010; Sullivan, Burnam, Koegel & Hollenberg, 2000). The J2SI Phase 2 research study utilizes the World Health Organization Quality of Life – Brief (WHOQOL-BREF) Questionnaire to assess study participants' quality of life across the domains of physical health, psychological health, social relationships, and environmental quality of life. The physical health domain includes activities of daily living, dependence on medicinal substances energy, fatigue and rest, mobility, pain and discomfort and work capacity. Psychological health consists of body image, negative and positive feelings, self-esteem, spirituality and religion, concentration and memory. Social relationships include personal relationships, social support and sexual activity, and quality of life relating to one's environment includes financial resources,

freedom, safety and security, access to services, home environment, physical environment, and participation in recreational activities.

Table 18 outlines the mean WHOQOL-BREF scores on each domain for the overall sample at Baseline and the Matched Sample and Baseline and Wave 3, by permanent housing status. For the overall matched sample, quality of life has increased across all four domains. Notably, the increase in environmental quality of life is larger amongst those in permanent housing than those not in permanent housing. Differences in the physical health, psychological and social relationship domains across the Baseline and Wave 3 time points are relatively comparable between respondents in permanent housing and those not in permanent housing.

**Table 18: Mean score on the WHOQOL-BREF by quality of life domain, by permanent housing status, at Baseline and Wave 3, Baseline and Matched Samples**

Quality of Life Domain	Baseline Sample (N=180)			Matched Sample (N=134)					
	Housed but at risk of homelessness (a) (N=14) (%)	Homelessness and institutional living (b) (N=166) (%)	Total sample (N=180) (%)	Permanent housing at Wave 3 (c) (N=59)		Homelessness and institutional living at Wave 3 (b) (N=75)		Total sample (N=134)	
				Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)	Baseline (%)	Wave 3 (%)
Physical Health	43.1	45.0	44.9	46.8	51.8	43.4	50.4	44.9	51.0
Psychological	36.4	46.4	45.6	45.8	56.7	45.8	55.1	45.8	55.8
Social Relationships	41.6	39.2	39.4	38.2	44.7	39.5	50.2	38.9	47.8
Environmental	47.9	45.8	46.0	46.0	61.2	47.0	55.3	46.6	57.9

(a) Includes those who reported staying in public housing for the week prior to the survey.

(b) Includes those who reported sleeping rough, staying with friends and family because they have nowhere else to live, short- to medium-term supported homelessness accommodation, temporary accommodation or institutional residential dwelling for the week prior to the survey.

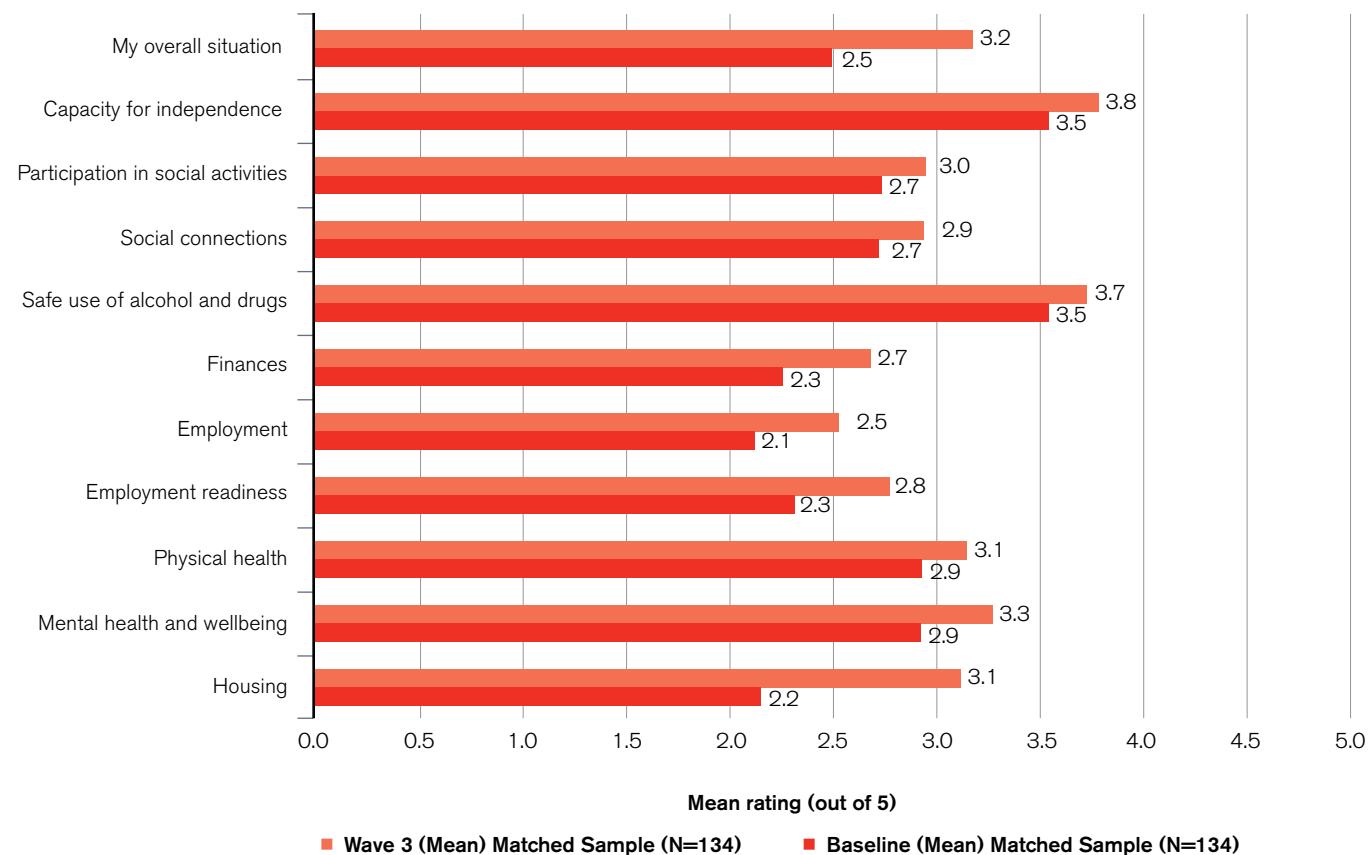
(c) Includes those who reported staying in public housing, private rental accommodation or own house (owner occupier) for the week prior to the survey.

Source: J2SI Phase 2 Baseline and Wave 3 Survey

Participants in the J2SI research study are also asked to rate on a five-point Likert scale their current satisfaction with and future optimism across several areas. Figure 15 shows the mean current satisfaction scores for the matched sample at Baseline and Wave 3. We see an increase in satisfaction across all domains between the two time points, particularly in terms of housing and

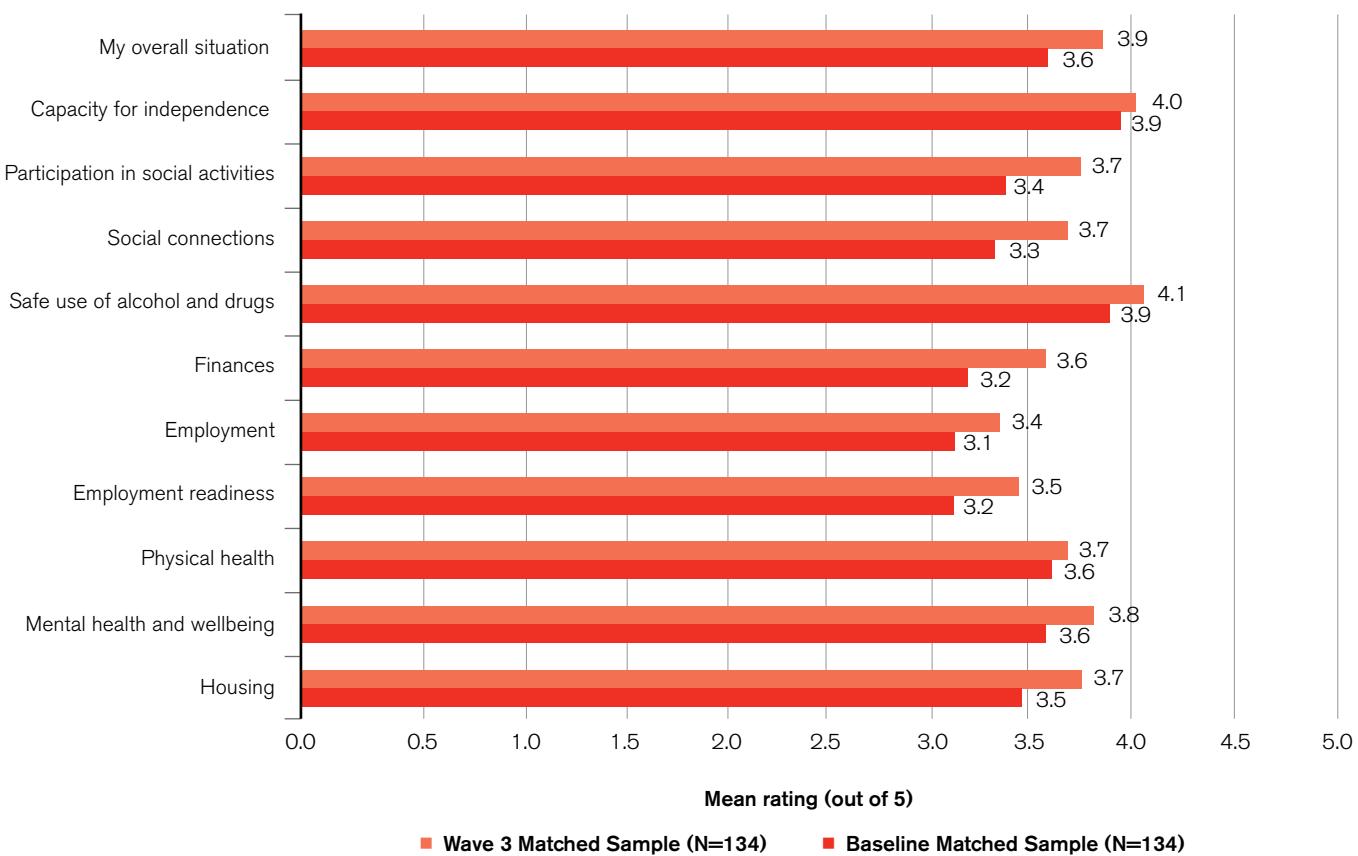
overall situation. Figure 16 depicts the mean scores of future optimism across the same areas. Again, we see increased scores across all life outcomes. In particular, study participants' agreed that they had optimism for their safe use of drugs and alcohol and their capacity for independence in the future.

**Figure 15: Current satisfaction with outcomes in life areas, at Baseline and Wave 3, Matched Sample**



Source: J2SI Phase 2 Baseline and Wave 3 Survey

**Figure 16: Mean optimism for the future about outcomes in life areas, at Baseline and Wave 3, Matched Sample**



Source: J2SI Phase 2 Baseline and Wave 3 Survey

## 10. Conclusion

This report has presented the Year One results of the survey component of the Journey to Social Inclusion (J2SI Phase 2) research study, which aims to evaluate outcomes of the J2SI Phase 2 program. This is a randomised controlled trial in which study participants were randomised into the J2SI program (the 'J' or treatment group) or into the 'services as usual' group (the 'E' or comparison group). The theory underpinning the J2SI program is that permanent, stable housing is the foundation from which the antecedents and consequences of the experience of chronic homelessness can be addressed. Accordingly, the intensive case management provided in the first year of the program focuses heavily on obtaining housing and delivering the support required to sustain that housing.

In line with the wealth of research on the impact of housing, permanent housing is expected to positively impact life outcomes for people with a history of chronic homelessness across a broad set of domains (Hwang et al., 2001; Wade & Dixon, 2006; Evans, Wells & Moch, 2003). In line with this, each six-monthly 'wave' of surveys in the research study measures outcomes across housing, physical health, mental health, substance abuse issues, healthcare utilisation, economic participation, social support and participation, and quality of life. The program targets different domains at different stages and the impacts take time to manifest, as there is often a stabilisation period after housing is obtained (Culhane, Metraux & Hadley, 2002). Indeed, it is expected that some outcomes will get worse before they get better (Zaretzky & Flatau, 2015; Padgett, Gulcur & Tsemberis, 2006). Therefore, considering the results at one year, it is important to remember that the J2SI Phase 2 program duration is three years. A full evaluation of the outcomes of active J and E and I group participants across all domains will occur at the end of the program.

In terms of obtaining permanent housing at Wave 3, we found significant differences between active participants in the J group and those that are not in the J group. However, there were no significant differences between

J2SI group participants and non-J participants on any other dimension. There are several potential explanatory factors for this lack of statistical difference. With housing obtained, problems in other domains of formerly homeless individuals' lives may then be addressed. For example, the psychological impact of no longer having to worry about finding housing allows an individual the 'mental space' to address needs in other domains, such as health, mental health, drug and alcohol, and employment (Hulbert, Hough & Wood, 1996; O'Connell, Kasprow & Rosenheck, 2008). Further, having a stable address makes regular access to services that address these needs more feasible. This has been demonstrated in prior research, which has shown that health service utilisation can increase in the first year of permanent housing (Zaretzky & Flatau, 2015). Moreover, initial adjustment to permanent housing after years of chronic homelessness can be disorienting and take time (Collins et al., 2012).

Examining the results for the overall sample, 44.8% of participants were in permanent housing at Wave 3, in contrast with only 7.8% of the total Baseline sample and 9.0% of the Matched Baseline sample (comprised of only those participants that completed both Wave 3 and Baseline surveys). In addition, we see that almost half of those participants who had obtained permanent housing had been in their housing for 6 months to one year. A much greater proportion of those in permanent housing reported that they felt safe in their accommodation all of the time compared with their Baseline responses. Interestingly, there was also an increase in the proportion of those not in permanent housing who reported they felt safe all the time in their accommodation between Baseline and Wave 3.

Self-ratings of general health remained quite stable between Baseline and Wave 3 for the matched sample, with 40.3% of the matched sample at Wave 3 stating that their health was about the same as 12 months prior. Comparing the self-ratings of health of those in permanent housing at Wave 3 with those not in permanent housing

revealed no consistent differences. For example, a higher proportion of those not in permanent housing rated their health as 'poor', and this proportion increased between Baseline and Wave 3; however, a higher proportion of the permanently housed than the non-permanently housed reported that their health was 'much worse' than one year ago. However, the number of matched sample respondents reporting that they had chronic conditions and conditions likely to last more than six months decreased between Baseline and Wave 3, and the proportion that had a condition but were leaving it untreated also decreased. Rates of chronic and persistent conditions remain higher than Australian national rates.

Psychological distress, as measured by mean scores on the K10, decreased slightly, and the proportion of the sample experiencing very high distress decreased at Wave 3 relative to Baseline. Meanwhile, the proportion endorsing low distress increased, though the proportion in the 'severe' category increased slightly at Wave 3. Results on the DASS21 were similar, with the proportion of those in the 'extremely severe' category decreasing and the proportion in the 'normal' category increasing across dimensions of depression, anxiety and stress. However, the results in the middle categories of the domains varied. For example, a higher proportion of respondents at Wave 3 were in the 'severe' categories of anxiety and depression.

With regard to alcohol and other drug use, the proportion of respondents in the high-risk category for opioids and amphetamines on the ASSIST measure decreased between Baseline and Wave 3. Results for alcohol and cannabis remained stable. In terms of treatment, a greater proportion of the overall matched sample had received inpatient treatment for substance use issues at Wave 3 than at Baseline, while (supervised and unsupervised) home detoxification decreased. Rates of other types of treatment remained relatively stable between Baseline and Wave 3, with the exception of Methadone use, which increased from 17.2% of the matched sample at Baseline to 25.4% at Wave 3. Disaggregating the results on alcohol and other drug treatment by housing status, use of outpatient and community-based alcohol and drug treatment facilities increased amongst the permanently

housed, whilst inpatient/residential facility use increased amongst those who were not permanently housed. This makes sense, as treatments outside of hospital are much more accessible if one has accommodation that can support in-home treatment.

There were no clear trends in changes related to health service utilisation in the 12 months prior to survey between the Baseline and Wave 3 nor between those in permanent housing and those in homelessness or institutional living arrangements. For example, GP visits in the year prior to survey decreased slightly at Wave 3 relative to Baseline for the overall sample, decreasing for the permanently housed and increasing slightly for those in homeless or institutional living arrangements, though the mean number of GP visits was still higher for the permanently housed. Specialist doctor visits increased for both the permanently housed and those in homeless or institutional living arrangements. The mean number of nights spent in hospital declined for J2SI program participants but increased for those in permanent housing generally which may indicate greater stability for J2SI program participants. Healthcare utilisation amongst the chronically homeless is high, in line with the higher prevalence of disease and lower access to preventative measures and early treatment. Previous research has highlighted that, while utilisation can often increase initially after attainment of permanent housing, the longer term trend is decreased usage (Culhane, Metraux & Hadley, 2002; Zaretzky & Flatau, 2015). Therefore, the lack of clear difference in healthcare utilisation between the permanently housed and the non-permanently housed is likely due to the relatively low (in the broad scheme of things) amount of time that permanently housed participants have been in their accommodation.

The employment and labour force participation rates amongst J2SI research study participants remained very low at Wave 3, with over half of the overall matched sample reporting that they were unable to work due to a health condition or disability. The proportion of the permanently housed that reported they were unable to work due to an illness or disability decreased at Wave 3 relative to Baseline. This may indicate that physical limitations are

being addressed or alternative employment options are being discovered. Loneliness measured by the UCLA 3-item Loneliness Scale decreased slightly at Wave 3, the mean score on the Scale of Social Support increased slightly, as have scores on all domains of the WHOQOL-BREF. Notably, improvement on the environment domain of the WHOQOL-BREF was greater for those in permanent housing than those not in permanent housing. These subtle changes are in a positive direction and will be examined further in the subsequent report.

Satisfaction with current circumstances increased between Baseline and Wave 3, particularly in the housing and overall situation domains. Optimism for the future is also strong. In fact, the average optimism for the future concerning capacity for independence and safe use of drugs and alcohol was greater than 4 out of 5 at Wave 3. This optimism may help facilitate success as the J2SI Phase 2 program shifts in Year 2 towards more team-based engagement, with coaching to empower clients to achieve their goals. At the conclusion of the three-year trial, the research study will publish a final report based on further waves of the survey and qualitative interviews, together with the analysis of linked administrative data.

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