RESOLVING LONG-TERM HOMELESSNESS

A RANDOMISED CONTROLLED TRIAL EXAMINING THE 36 MONTH COSTS, BENEFITS AND SOCIAL OUTCOMES FROM THE JOURNEY TO SOCIAL INCLUSION PILOT PROGRAM

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About Sacred Heart Mission
Sacred Heart Mission has over 30 years experience delivering services that meet the most basic needs of people who are chronically disadvantaged and assists hundreds of people every day who are homeless or living in poverty.

For further information about Sacred Heart Mission go to www.sacredheartmission.org

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EXECUTIVE SUMMARY

The Journey to Social Inclusion pilot program was designed to break the cycle of long-term homelessness. The pilot provided intensive support for three years to assist people who were long-term homeless to receive the range of services they need. This report presents the social and economic outcomes after the completion of the pilot. The evaluation used a randomised controlled trial to track and compare the outcomes of the J2SI participants (Group J) with those of an equivalent group of chronically homeless people (Group E) who were supported by existing services. After three years 80% of the original participants remained involved in the trial.

The outcomes are promising. The evidence suggests that J2SI had a significant impact on the lives of most participants. After three years 85% of J2SI participants were housed compared to 41% of those who were receiving existing services. Over the course of the trial J2SI participants were housed for 67% of the time, or nearly twice as long as those in the control group (35%). The evidence confirms that given the right level of support people who have experienced long-term homelessness can maintain their housing.

The outcomes data reveal ongoing improvements in other areas as well. The emotional health of the J2SI participants improved and they report lower levels of stress, anxiety and depression after three years compared to where they were at the start of the trial, and also compared to Group E. The physical health of Group J improved with the proportion reporting no bodily pain increasing from 27% to 41% over the three year period. However, four people passed away during the trial, a blunt reminder of how common premature death is among the long-term homeless. Three of those who passed away were from Group E.

Although there is some variation in the use of health services with both groups showing greater improvements in some areas relative to the other group, the most important empirical finding is that Group J's average use of emergency psychiatric services and their average number of days hospitalised in a general hospital and a psychiatric unit has declined both over time and relative to Group E. Group J's need for emergency hospital treatment has also declined over time but less than Group E's. This translates into a substantial health care impact and suggests that an intervention comprising stable housing and intensive case management can reduce the public burden associated with the over-utilisation of health services.

While few people in either group were employed and the number looking for work in Group J declined in the last 12 months, twice as many people in Group J were looking for work compared to Group E. The report also shows improvements over time and relative to Group E in the use of welfare and homelessness services, and the amount of time incarcerated.

There are a number of areas where there was little change. Most notably we found little change at any stage in the trial in the substance use behaviour of the participants. Similarly, the extent to which the participants felt connected to and supported by the community did not change a great deal over the three years. Further, we found the short-term economic benefit to be modest, with a return of between 0.15 and 0.22 for every dollar invested. Taking into account lives saved over a 10 year time frame the economic benefit was more substantial, with a $1.30 return for every dollar invested.

Nonetheless, the evidence shows that breaking the cycle of chronic homelessness is possible and that intensive support coupled with stable housing can reduce demand on expensive health, justice and welfare services. However, the study also found the deep effects of social exclusion are much harder to address. The evaluation found, as have many other similar studies, that having a home does not necessarily lead to social acceptance and social inclusion. With limited employment options, few social networks outside of the homeless population, and few alternative social activities, opportunities for social inclusion are limited.

In this context programs designed to permanently end long-term homelessness such as J2SI need to temper their expectations and accept that years immersed in homelessness not only have physical and emotional effects, but also long-term social and economic effects as well. When the long-term social impact of homelessness is understood by policy makers they will be in a better position to confront the fact that what constitutes social inclusion is a much thornier issue for the long-term homeless than is generally understood.

J2SI has clearly made a difference in the lives of many of the participants, even if it is only a less stigmatised and safer day-to-day life. However, the true test of the J2SI pilot will be whether the improvements reported here are sustained over the longer term. In 12 months' time we will report on how the trial participants are travelling 12 months after the program closed. Only then will we be in the position to say whether the J2SI approach provides lasting solutions to long-term homelessness and whether the benefits justify the costs.

CONTENTS

1. INTRODUCTION

In November 2009 Sacred Heart Mission launched the Journey to Social Inclusion (J2SI) pilot, a three year program that aimed to assist 40 people to make a permanent exit from long-term homelessness. Sacred Heart Mission (SHM) developed the J2SI model in response to the problems existing services had in providing a permanent solution to long-term homelessness. Staff and management at SHM had been aware for a long time that the primary challenge was not just securing housing for the long-term homeless but ensuring they remained housed.

The J2SI model differed from existing approaches in a number of important ways. First, SHM took the view that meaningful relationships based on mutual trust, reliability and persistence were the key elements underpinning personal change. As such each J2SI worker supported four clients for up to three years. This was a considerably smaller case load and a much greater length of time than most specialist homelessness services (SHS) offer. Second, J2SI focused on securing rapid access to safe, secure, independent, affordable permanent housing. Third, the J2SI pilot had a specific focus on the impact of trauma, an issue commonly reported among the long-term homeless (Buhrich, Hodder and Teesson 2000; Hopper, Bassuk and Olivet 2010), but one that few specialist homelessness services explicitly focus on. Finally, the J2SI pilot included an integrated training and skills development program to provide participants with interpersonal, practical, tenancy and vocational skills (see Parkinson 2012 for a full overview of the model).

After three years of operation the J2SI pilot finished in November 2012. This report evaluates the impact of J2SI over that three year period. It builds on two previous reports that examined the impact of the J2SI program after 12 and 24 months (Johnson, Parkinson, Tseng and Kuehnle 2011; Johnson, Kuehnle, Parkinson and Tseng 2012). The two earlier reports document the social, economic and systemic context in which the J2SI program was developed, what the evidence tells us about successful interventions for the long term homeless, and the framework we use to evaluate the J2SI program. For readers unfamiliar with these reports, three issues need to be re-stated.

First, we use a randomised controlled trial (RCT) to assess the impact of the J2SI pilot. RCTs are considered the most robust method for assessing the *impact* of complex service interventions. In the case of the J2SI pilot we use a RCT to compare the outcomes of the J2SI participants (the 'treatment' group) with an equivalent group of long-term homeless who received assistance from existing services (the 'control' group). The assumption underpinning this approach is that any difference observed between the outcomes of the two groups can be attributed to the J2SI intervention.

A total of seven surveys were collected for the RCT over a three year period. Quantitative data were collected on entry into J2SI (baseline survey) and at six monthly intervals. Self-reported information about education, employment, and income as well as social connectedness, mental and physical health, housing, substance use, and service usage was collected in each survey. A detailed account of the method of recruitment and randomisation including the tests for assessing statistical comparability of the treatment group and the control group is outlined in Johnson *et al* (2011).

An increasing number of people involved in the evaluation of new social programs have argued that the value of randomisation can be enhanced through 'well-constructed qualitative research' (Gray, Plath and Webb, 2009: 41). Qualitative material offers researchers the opportunity to explore in greater depth complex social processes. Consequently, we included a qualitative component in the research design which involved three in-depth qualitative interviews with approximately half of the trial participants. The three interviews coincided with the baseline survey and the 18 and 36 month follow-up surveys.

The second issue to keep in mind is the nature of the sample when the trial started. Data collected in the baseline survey and contained in the 12 month report provides a clear picture of the participants' disadvantage. The report found that the participants' housing was marked by chronic instability and that over half (53%) had their first experience of homelessness by the time they were 18 years of age. An equally significant finding was that a majority of the trial participants (87%) had experienced major and often repeated childhood trauma such as sexual or physical abuse, neglect and/or the involvement of child protection authorities. The report also found that the participants' current level of disadvantage was acute - over 90% had chronic physical or mental health issues, 89% reported drug and/or alcohol misuse problems, over three quarters had been physically assaulted at some point in their lives, half (52%) had been incarcerated, none were in paid employment, and most had not worked for five years or more. By any measure the trial participants' biographies and current circumstances were far removed from the community norm, and even within the homeless population, their circumstances are extreme.

The third issue worth noting relates to the changes that occurred after two years of the J2SI intervention. The 24 month report showed significant improvements in the lives of J2SI participants compared to their baseline results, and to those in the control group. The most striking improvements were observed in the participants' housing, labour force participation rate, and their physical health. There were also notable reductions in the number of presentations at emergency hospital departments, as well as a substantial decline in the use of homelessness, meals and similar welfare services. However, the report indicated that there were only limited changes in other areas of the participants' lives, particularly their substance use and the degree to which they felt accepted and supported by the broader community. In this context the key message of the 24 month report was cautionary – while breaking the cycle of long-term homelessness is possible, policy makers must have realistic expectations about what services working with the chronically homeless can achieve and about how long it takes to achieve these goals.

As with previous reports, this report evaluates whether the housing, well-being, service usage, and social outcomes differ between those who received support and assistance from existing services (Group E) and those receiving assistance from the J2SI pilot (Group J). This report examines the outcomes after the full 36 months of the J2SI trial and therefore contains the most complete picture of the impact of the J2SI pilot and whether it has met the challenge of ending long-term homelessness. This report also contains an update of the cost-benefit analysis of the J2SI program presented in the 24 month report.

While this report follows similar lines to previous reports, we have added some new areas to the analysis. With respect to housing we pursue three additional lines of enquiry. First, we look at how long it took participants to secure permanent, independent housing. This is a particularly important issue in the context of emerging policy and research debates about the efficacy of 'housing first/housing led' approaches and the limited housing options low income households have in inner city Melbourne (Johnson, Parkinson and Parsell 2012). Second, we consider the overall amount of time that each group has been housed over the course of the three year period. Third, we examine the extent to which participants who are housed are confident they can maintain their housing. The addition of these three issues into the housing analysis provides a clearer picture of the full impact of J2SI, as well as another perspective on the overall impact of stable, independent housing.

Along with a deeper analysis of the participants' housing outcomes, this report includes a new section that examines the participants' current level of satisfaction with their life and compares it to three years ago. The inclusion of a section devoted to an analysis of satisfaction among the trial participants is important as it provides a different angle on the impact of the J2SI pilot – rather than examining single measures of change (e.g. housing, health), here we gain an insight into the participants' perceptions of the broader impact of J2SI on their lives. We unpack the issue of participant satisfaction to take into account the different levels of satisfaction the participants may experience with respect to their housing, employment, social connectedness and health circumstances.

1.1 STRUCTURE OF THE REPORT

The way we structure the report is as follows. In the next chapter we provide a brief summary of the method and the issues that have emerged over the course of the trial including attrition. Following this there are two empirical chapters. Chapter 3 examines and compares the housing, mental health, pain and mortality, health and other service use issues, substance use, economic participation, and social connectedness outcomes of the two groups after 36 months. We also include a new section on the trial participants' reported levels of satisfaction in this chapter. In Chapter 4 the economic costs and benefits of the J2SI pilot are presented. In the final chapter (Chapter 5) we discuss the policy and practice implications of the findings and point to the issues and themes we intend to pursue in the final evaluation report due for release in September 2014.

2. METHOD

Over the last 10 years increased policy interest in program evaluation has seen a steady move away from point-in-time studies to longitudinal approaches. Longitudinal approaches are considered superior to point-in-time studies because they can track the influence of different factors over time and thus provide more reliable information about the longer term effects of specific policies, programs and practices. While the move to longitudinal evaluations was overdue, a common feature of longitudinal evaluations in Australia is that they typically follow a single group of respondents over a relatively short time frame, generally 12 months (Johnson and Chamberlain 2013; Parsell, Tomaszewski and Jones 2013a,b; Kolar 2003; Johnson, Gronda and Coutts 2008). The short time frame and the use of a single group means that only limited inferences can be drawn about the effects of specific policies, programs, and practices – it is difficult to tell whether any changes in the participants' circumstances (outcomes) are a result of the service intervention (treatment effect), changes that would have occurred anyway, or a combination of both. The J2SI evaluation is therefore unique in that it follows participants for three years and includes people randomly assigned to either a control or a treatment group.

The longer time frame and the inclusion of a control group enables evaluators and policy makers to draw stronger inferences about the impact of a program. However, they also increase the risk of sample attrition. Where sample attrition is high findings can be seriously compromised. Table 1 shows that after seven interviews conducted over a 36 month period the retention rate is just over 80% and that it has remained at or around this level throughout the entire study period. A retention rate of 80% over three years is commendable in any social study, but probably more so here given the population the J2SI evaluation is tracking and that similar Australian studies report retention rates as low as 40% after just 12 months (Mission Australia 2012).

Nonetheless, about one fifth of the sample dropped out of the study. The loss of participants in a RCT can undermine the comparability of the treatment and control groups, and this can bias the results. When we examined the issue of attrition in the 24 month report we found that attrition was essentially non-random – the participants who were more likely to drop out of the study (significant at 5%) were those who used emergency health services and those who moved frequently – in short the evaluation appeared to be losing those who were faring the worst. As Group E had a higher attrition rate relative to Group J, the loss of more people who were doing poorly would have a positive influence on Group E's outcomes by reducing the spread of scores of those who remained in the trial. Thus, the non-random attrition we observed imposed a bias in favour of Group E by reducing the difference in average outcomes between the two groups.

When we analysed data collected during the 30 and 36 month follow up surveys we found much the same pattern of non-random attrition. Thus, at both the 24 and 36 month follow up we believe that the estimated effect of the J2SI intervention relative to Group E is larger than is subsequently reported[1].

2.1 NEW QUESTIONS

Throughout the trial the survey tool has remained much the same. There have been a few minor changes to the wording of some questions and a small number of questions that were not eliciting useful material were removed. However, in light of the impending closure of the J2SI pilot a number of new questions were added to the 36 month survey (wave 7). We asked people who were housed how confident they were about maintaining their housing and respondents were offered five options ranging from 'not at all' to 'extremely' confident.

Table 1: Retention rates

	Survey Participants	Base Line	6mFU	12mFU	18mFU	24mFU	30mFU	36mFU
Group E	44	n=42 (95.5%)	n=35 (79.5%)	n=34 (77.3%)	n=31 (70.5%)	n=32 (72.7%)	n=36 (81.8%)	n=34 (77.3%)
Group J	40	n=33 (82.5%)	n=37 (92.5%)	n=36 (90.0%)	n=36 (90.0%)	n=36 (90.0%)	n=38 (95.0%)	n=34 (85.0%)
TOTAL	**84**	**n=75 (89.3%)**	**n=72 (85.7%)**	**n=70 (82.1%)**	**n=67 (79.8%)**	**n=68 (81.0%)**	**n=74 (88.1%)**	**n=68 (80.9%)**

[1] Due to the small sample size, we are not able to adjust for this bias.

The participants were also asked a series of questions about their life satisfaction following the standardised measures of subjective well-being contained in larger population surveys such as the Household Income and Labour Dynamics in Australia (HILDA) survey. People were asked to select a number between 0 and 10 to indicate how satisfied they were with their life now and also three years ago. People were instructed that the more satisfied they felt the higher the number they should pick. We then asked some questions about their level of satisfaction with different aspects of life. More specifically, respondents were asked about how satisfied they were with: where they were staying; their employment opportunities; their financial situation; how safe they felt; whether they felt part of the local community; their health and how satisfied they were with the neighbourhood in which they lived. As with the earlier questions, respondents were instructed to select a number between 0 and 10 to indicate how satisfied they were.

2.2 ETHICS

The J2SI evaluation sought and received ethics approval from RMIT University[2] but we have not discussed at any length ethical issues associated with undertaking a RCT with people who are chronically disadvantaged. While even the strongest critics of RCTs generally acknowledge that they are a powerful of method of enquiry, when RCTs are used to evaluate social programs they have been characterised by some as 'cruel' and 'unethical'. Two arguments are used to support this position (Flatau and Zaretzky 2008). First, that it is unethical to treat humans as subjects of a social experiment. Second, that it is unethical to deny people access to a service. We are sympathetic to these concerns but we are not convinced by them for two reasons.

With respect to the argument that it is unethical to treat humans as subjects of social experiments, we argue that social programs are always, to some degree, experimental. There is never complete certainty regarding their impact. Further, the design of social programs is typically influenced by a mix of evidence, history, ideology and pragmatism. Given this and that the 'pool of money is limited' (FaHCSIA 2008:58), it is critical that resources are directed to programs that are the 'most cost effective and work to protect and enhance the life chances of people who are homeless' (FaHCSIA 2008:58). Millions of dollars are spent each year on homelessness programs for which there is little rigorous evidence that they work. More than any other method RCTs can identify programs that have the greatest social and economic impact.

The second issue relates to the mechanisms used to decide who is admitted to a program. In the homelessness service system, where demand exceeds supply, there are a range of different allocation procedures but most fit under the rubric of 'needs based assessment'. While theoretically 'needs based' allocation procedures appear to be a transparent and objective response to a resource constrained environment and may appeal to academics and policy makers removed from the service delivery environment, in practice those with the highest needs are not necessarily guaranteed a place. This is because there are numerous systemic, organisational and individual channels which introduce bias into the assessment process. The random allocation of places into a program means that once a person has satisfied a broad set of criteria they have the same chance of getting into a service as anyone else. For both reasons we feel that a well conducted RCT is an ethical approach to the evaluation of social programs.

[2] Ethics approval was sought and granted from RMIT University – Register number HRESC B-2000197-07/09

3. SOCIAL OUTCOMES

3.1 HOUSING OUTCOMES

A hallmark of J2SI was its focus on rapidly getting participants into permanent housing and keeping them housed. However, rapid access to affordable housing in Melbourne, as in many other places around the country, is one of the biggest problems confronting homelessness services. Affordable private rental stock in the inner city is scarce, particularly for single people. The lack of options in the private rental market means that public and social housing are the only realistic alternatives, but waiting lists are long.

Difficulties accessing housing is an issue that confronts all homelessness services, and has for a long time (Erebus Consulting Partners 2004). Recently it has come into sharper focus as a result of policy interest in Housing First approaches such as Street to Home. In their evaluation of the Melbourne Street to Home (MS2H) service, which also works in inner Melbourne with the long-term homeless and explicitly identifies as a 'Housing First' program, Johnson and Chamberlain (2013:23) found that the average length of time from engagement to securing permanent accommodation was just under nine months. Table 2 shows that on average J2SI took 206 days (or just under seven months) to secure permanent accommodation for its participants. In comparison it took Group E on average 410 days to secure permanent accommodation, or nearly double the amount of time it took Group J. An interesting point that emerges from Table 2 is that the two services (MS2H and J2SI) that prioritised direct access to permanent housing were more effective in overcoming some of the barriers that limit access to the inner city housing market. This suggests that irrespective of the condition of the housing market, organisations that actively prioritise housing as a key element in service provision can substantially reduce the amount of time it takes to secure independent housing.

Table 2: Mean length of time (days) to access permanent accommodation

	Group J	Group E	Street to Home
Mean number of days	206	410	257

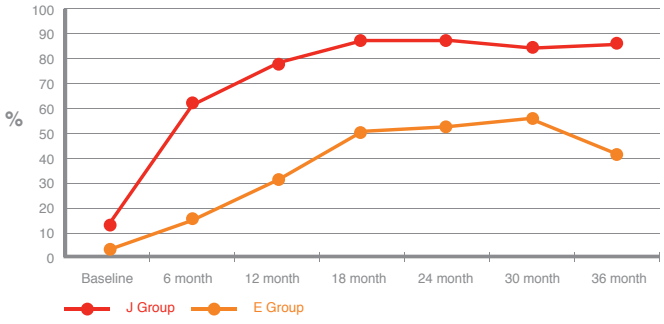
Apart from devoting considerable energy to finding permanent housing, a key objective of the J2SI pilot was to ensure the participants retained their housing. After 36 months the housing outcomes of the J2SI participants are extremely encouraging. Figure 1 shows that 85% of Group J were in independent housing after three years. In contrast, less than half (41%) of Group E were housed. Further, the proportion of people in Group E who were housed had declined by 15 percentage points between the 30 and 36 month surveys.

Figure 1 also shows that after the first 12 months of the pilot the proportion of Group J who were housed has remained above 80%. When we consider these housing outcomes and what has been reported by evaluations of similar programs internationally, J2SI's housing results are very much at the upper end (Stefanic and Tsemberis 2007; Sadowski, Kee, Vanderweele and Buchanan 2009). Few services report higher rates and many report much lower rates of housing retention over shorter periods. Over the three year period the evidence is clear – the J2SI pilot has done a more effective job in securing and sustaining the tenancies of its participants than existing services.

In light of the importance of sustaining tenancies, we were also interested in whether the participants felt they could maintain their housing once J2SI closed. Of the 32 people in Group J who were housed, 29 people answered the question 'how confident do you feel about maintaining your housing?' Over half (59%) were quite or extremely confident, just over a quarter (27%) were moderately confident, while a small number (n=4) expressed only 'slight' confidence in their capacity to maintain housing. In Group E only 15 people were housed. While just over half were extremely confident they could maintain their housing, 4 people had no confidence at all.

The confidence and capacity to sustain housing was more objectively captured when we analysed what happened to people's housing in-between each survey. At each survey we recorded additional information about people's housing circumstances

Figure 1: Proportion housed



in the six months prior to the survey and these data were used to create a housing calendar. The housing calendar enabled us to accurately assess the housing stability of trial participants.

The data from the housing calendar indicate that the overall housing circumstances of Group J were superior to those in Group E. Over the full course of the trial, J2SI participants were housed for 67% of the time and two thirds (66%) had been housed for two years or more. For many J2SI participants this was the longest amount of time they had been housed for many years and the impact was tangible. Bess told us that being housed:

> *… helped me grow in a lot of ways. I can live on my own, I can look after myself, my budget, my medication… I know I can, you know, deliver, whereas before…*

While Anne highlighted how important a stable place was for her:

> *It's really contributed. Before I was in rooming houses and couch surfing, so yeah, you can really put roots down in housing. This is the best start … you can then work on other issues.*

It was also the longest amount of time they had been out of the homeless population and for many this was a very significant change in their lives. Carley reflected on the fact that she now found herself to be much more:

> *… open with people. I can walk down the street and say g'day to someone and they'll say g'day back, you know. That's a good feeling that.*

In contrast, those in Group E were, on average, housed for just over one third (35%) of the trial. Further examination of the data revealed that nearly one third (31%) of those in Group E had remained homeless during the entire trial period (the corresponding figure in Group J was 7%), and another 10% had been housed in total for six months or less (in Group J it was 3%). This means that over 40% of those receiving assistance from existing services experienced little change in their housing circumstances over the three year period. Tamara was in a boarding house when we conducted the final interview and she had been residing there for a number of months. She told us that she was regularly woken up:

> *… 20 times a night by someone screaming, "Let me in", someone screaming, "You fucking ripped me off", someone screaming, 'Hey, your fucking whore stole my money". It's a problem. I don't think anyone could reasonably expect to have a normal life in a boarding house under those circumstances, it's just ridiculous.*

To summarise, it is clear that J2SI effectively addressed most of the participants' housing needs, but it is important to note that for a small number of Group J participants there was little change and we still know very little about 'what works' for this group.

3.2 MENTAL HEALTH OUTCOMES

One hypothesis developed at the start of the evaluation was that we would observe greater improvements in the mental health and emotional well-being of the J2SI participants over time and relative to Group E.

Emotional well-being was measured with the Depression Anxiety and Stress Scale (DASS) at every interview. The DASS is a 42 item self-report measure of anxiety, depression and stress developed by Lovibond and Lovibond (1995). The DASS has been extensively tested with the general and clinical populations and shown to be a 'reliable and valid measure for the constructs it was intended to measure' (Crawford and Henry 2003). We used the shortened version of the DASS, the DASS-21. Participants were read 21 statements such as 'I found it difficult to relax' and were asked to indicate how well each statement applied to them in the preceding week by choosing a number between 0 and 3. A zero indicated it did not apply to them, whereas a three indicated that it applied very much. The DASS scoring system is shown in Table 3. A high score indicates a more severe level of anxiety, stress or depression.

Table 3: DASS Scoring system

	Depression	Anxiety	Stress
Normal	0 – 9	0 – 7	0 – 14
Mild	10 – 13	8 – 9	15 – 18
Moderate	14 – 20	10 – 14	19 – 25
Severe	21 – 27	15 – 19	26 – 33
Extremely Severe	28+	20+	34+

The DASS enabled us to create four measures. First, we created three individual measures to assess the level of depression, anxiety and stress. Second, we summated the scores of the 21 items to assess the overall emotional well-being of the participants.

Over the 36 month period the average overall DASS score declined by similar amounts. In Group E it decreased from 63.2 to 57.4, while for Group J it declined from 54.5 to 44.6 (Figure 2). In the first 18 months the average score of both groups followed a similar pattern and decreased, but then the average score for Group E starts to increase. By the 36 month survey Group E's score is only marginally lower than at baseline.

When the scores in each of the domains – depression, anxiety and stress - were examined four discernible patterns emerged. First, when we compared baseline scores with the results from an observational study of trauma and distress among the long-term homeless by Taylor and Sharpe (2008), we found the DASS results of both studies were very similar (See Figures 3, 4 and 5; T&S = Taylor & Sharpe). This increased our confidence in the validity of the DASS tool. Second, in each domain Group J's scores are lower at the 36 month survey than at baseline – stress declined from 20.2 (a moderate level) to 14.6 (a mild level); anxiety declined from 15.2 (a severe level) to 12.4 (a moderate level) and depression from 19.1 to 15.5 (a moderate level). The decline across all three areas suggests the J2SI participants' emotional and mental well-being has improved, albeit slightly, over the course of the trial. Jobe said that he felt much more:

> *… positive in what I am doing these days when I've got to do something or go somewhere. I'm more positive about what I've got in my mind and what I'm doing.*

Second, the scores of those in Group E have also declined but not as much as those in Group J – Group E's stress declined from 23.4 to 18.8; anxiety from 17.2 to 16.6 and depression from 22.5 to 19.7.

Third, over the course of the trial we observe more volatility in Group E's scores. Further, Group E's scores in all three domains increased in the last six months, and while it is not entirely clear why this happened, a plausible explanation is that it reflects the loss or precarious state of their housing.

Each DASS result indicates that Group J's mental and emotional health has improved, but the results in the last 12 months deserve particular attention. While Group J's level of depression and stress (Figures 3 and 5) improved the most over the course of the trial, in the final 12 months of the trial we observe little change in their level of both stress and depression, and an increase in the level of anxiety (Figure 4).

In previous reports we suggested the reason we observed little change in the DASS results for the first year may have been due to the stresses and tensions of moving out of a familiar place and space and into somewhere new and unfamiliar. We suggested that over time we would observe greater improvements in the participants' scores as they

Figure 2: Overall DASS Score

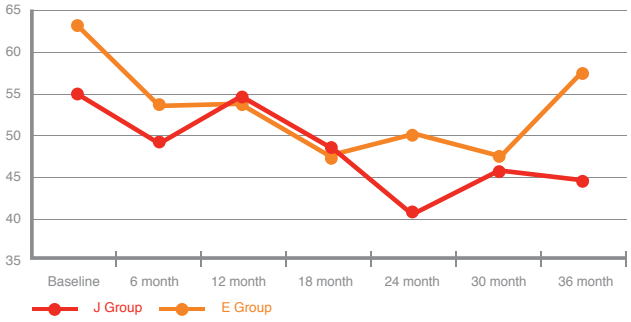


Figure 3: Depression

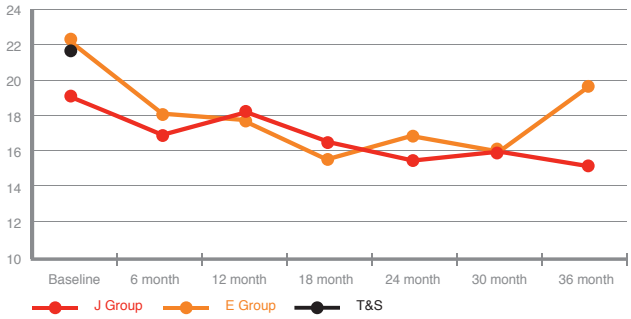


Figure 4: Anxiety

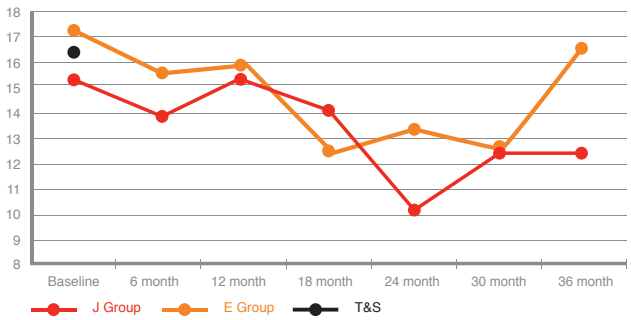
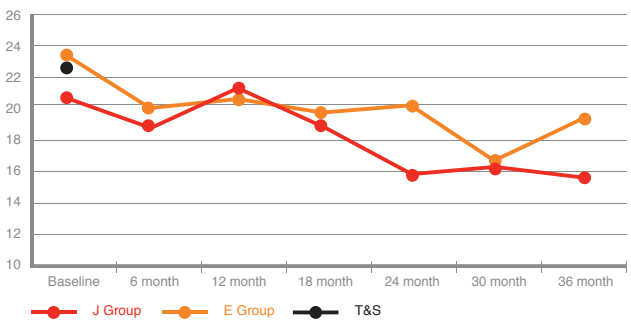


Figure 5: Stress



became accustomed to having a house, more confident in their ability to maintain their housing, and developed new routines that embedded them in the local environment. The results after two years of the trial seemed to support this argument.

However, we found there was a small increase in anxiety over the final six months while the measures of depression and stress levelled out. As stress, depression and anxiety are influenced by a range of environmental, physiological and contextual factors, we suspect that the impending closure of the J2SI pilot and the cessation of long-term supportive relationships created concerns and doubts for some of the J2SI participants. The qualitative material indicated that participants had mixed feelings about J2SI closing. Some were ready to move on and this was often because they had other supports in place. Anne said that she felt:

> *… good. I've got all my bases covered and I've still got a drug and alcohol worker that I see once a fortnight.*

Some reflected on the positive impact of J2SI. Amy told us that 'if it wasn't for J2SI I would be a lot sicker than what I am'. However, others were clearly worried and anxious. Malcolm told us that he would:

> *… miss the program … being able to come here and talk to people. As silly as it sounds, you know what will I be left with, you know, where will I go next? I don't know.*

The impact of case closure has received little attention from policy makers but it is a particularly salient issue. The J2SI pilot magnified the importance and complexity of effective case closure because of the tension between the logic that shaped the J2SI model was based on the idea of building relationships with participants, yet as a pilot program J2SI had a clear end point. The potential impact on J2SI clients was given considerable attention at both a governance and practice level. And while a number of practices and processes were put in place to alleviate distress, it is clear that for some participants for whom relationships with J2SI workers were still of considerable importance, the impending loss of that relationship had a detrimental impact on their emotional well-being. In the next report, which will examine data collected 12 months after the close of the J2SI pilot, we will be in a better position to tell whether this was a temporary outcome or a more enduring one.

The important point to reflect on here is that the experiences the long-term homeless have had with other people are often characterised by a lack of trust or stability – attachments to important others are often compromised from an early age. Thus, services which occupy a privileged but also problematic position in the lives of the long-term homeless need to be cognizant of the potential impact of service withdrawal. How well services 'close a case' can have a significant bearing on the trajectories people subsequently travel.

3.3 PHYSICAL HEALTH: PAIN AND MORTALITY

At the start of the trial just over three quarters (78%) of the participants reported chronic physical ill-health (Johnson *et al*. 2011). The sorts of health problems that people reported varied and while the likelihood of a full recovery from some chronic health problems is low[3], having good support and stable housing are linked to better health management (McDermott, Bruce, Fisher and Muir 2009; McDermott, Bruce, Oprea, Fisher and Muir 2011). In this section we focus on the level of bodily pain the participants felt in the last four weeks ranging from 'no bodily pain' to 'severe pain'.

Self-reports from Group J suggest their physical health has improved (Table 1, appendix A). The proportion who reported no bodily pain increased by 14 percentage points, from 27% at baseline to 41% at the 36 month follow up. In Group E the pattern was less consistent. Just under a quarter (24%) reported no physical pain at benchmark and this increased only slightly to 29% in the first two years of the trial. In the last 12 months there was a marked increase in the number who reported no bodily pain, and at the 36 months survey 38% of Group E indicated they had no bodily pain in the 4 weeks preceding the 24 month follow up survey. While there was a 22 percentage point difference between the two groups at the 24 month follow up, by the 36 month survey there is only a 3 percentage point difference. Given both the treatment and control groups reported similar results at the 36 month follow up it is difficult to determine whether or to what extent the J2SI program had a positive impact on people's physical health and its management.

[3] At baseline 42% of the participants reported diseases of the digestive system, 39% reported diseases of the respiratory system, 29% reported physical disabilities and 16% reported diseases of the circulatory system.

The most extreme health outcome among the participants was the mortality rate. Research shows that the mortality rate among the homeless, particularly the long-term homeless, is higher than the general community (Babidge, Buhrich and Butler 2001; Gossop, Stewart, Treacy and Marsden 2002; Hwang, Wilkins, Tjepkema, O'Campo and Dunn 2009; Sadowski *et al*., 2009). After 36 months three Group E participants had passed away and so had one Group J participant.

3.4 HEATH SERVICE USE

Just over a decade ago Dennis Culhane, Stephen Meraux and Trevor Hadley (2002) published results of a study which showed that chronically homeless people placed into permanent housing used shelters, hospitals and prisons much less often. Since then there has been significant interest around the world in the potential cost savings (or off-sets) that might be achieved by investing in adequately resourced programs that aim to resolve long-term homelessness.

There is no doubt the long-term homeless are frequent users of costly emergency departments, psychiatric and hospital services and reducing the use of these services has important cost implications. However, while costs offsets are a crucial element in making a case for appropriately designed and resourced interventions, it is worth bearing in mind that the poor health of the long-term homeless means that high levels of health assistance are often still required. Hence, well targeted service interventions may lead to an increased use of some types of health services.

In this section we examine the use of emergency health departments, both psychiatric and general hospital, as well as admissions into general hospital and psychiatric units over the three years. We report the most noticeable findings and direct the reader to the appendices for more detailed information.

Our first task, as it has been in each report, is to explain how we analysed the service use data as there are many ways of measuring service use. We use three measures to investigate different patterns of health service use among the two groups. The first measure investigates the usage rate. This refers to the proportion of people who used the service. Second, we examine usage intensity. This is the average amount of time a service is used by the people who use it. We then combine the above two measure to generate the average numbers of days of health service usage per individual, or the average use. The following sections work through each measure.

3.4.1 USAGE RATE

After three years the evidence shows two distinct patterns in Group J's use of health services, with little change observed in the proportion using hospital services but a substantial decline in the proportion who used psychiatric services. First, the proportion of Group J presenting at emergency hospital departments declined by six percentage points, from 33% at baseline to 27% at the 36 month follow up, while the proportion admitted to general hospital declined by a single percentage point over the three years (from 27% to 26%). In both cases the usage rate declined most in the first 12 months, increasing very slightly hereafter for the next 24 months.

In contrast, among Group E the proportion presenting to emergency hospital departments declined by 17 percentage points and the proportion admitted to general hospital declined by 16 percentage points between baseline and the 36 month follow-up. In both cases the decline was larger in the first two years compared to the last year of the trial where the proportion of Group E presenting to emergency hospital departments actually increased by eight percentage points, while the proportion admitted to general hospital remained much the same.

While we observe little change in the usage rate of both types of hospital services the pattern is very different when we examine the use of psychiatric services, both emergency presentations and admissions to psychiatric units (Figure 6 and Figure 7). In both cases Group J's usage rate declined by

Figure 6: Proportion using emergency psychiatric services, last six months

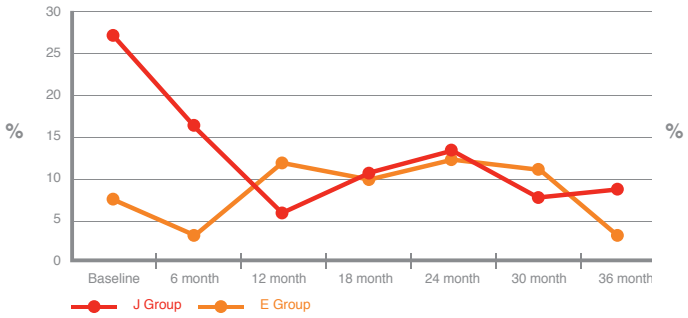
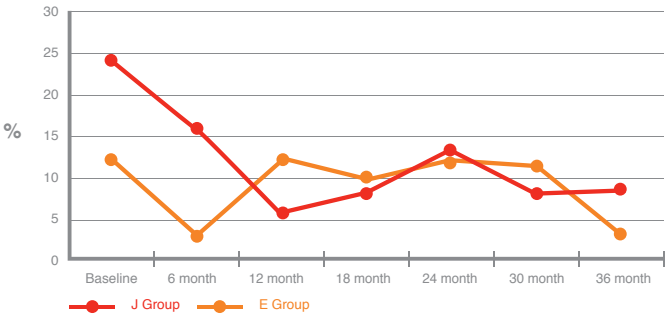


Figure 7: Proportion admitted to psychiatric unit, last six months



nearly two thirds – the proportion of people using emergency psychiatric services declined from 27% at baseline to 9% at the 36 month follow up, while the proportion of people admitted to psychiatric units declined from 24% to 9% over the three year period.

The data show that at the 36 month follow up fewer people in Group E were using the two psychiatric services than at baseline, and compared to Group J. However, it is important to note two things with respect to Group E and Group J's use of psychiatric services. First Group E's starting point was substantially lower than Group J's. Second, the overall decline in Group E is much less than what was observed among Group J.

3.4.2 USAGE INTENSITY

Although we observe different usage rates within and between the control and treatment groups, a key issue is whether those using the four types of health services are using any of them less often after three years than at the start of the trial.

Despite fluctuations between observation periods, the data clearly show that Group J participants used all four health services less often at the 36 month mark than they did at baseline. The number of times people in Group J presented to emergency hospital departments declined by 50% from 4.6 at baseline to 2.3 at the 36 month follow up (Figure 8); the number of days they were admitted to general hospital declined by over two thirds from 16 days at baseline to just over five at the 36 month follow-up (Figure 9); the number of times they presented for emergency psychiatric assistance declined from 5.7 times at baseline to 1.0 at the 36 month follow up (Figure 10), while the number of days Group J participants were admitted to a psychiatric unit for treatment declined by just over 70% over the course of the trial, from 24 days at baseline to 6 days at the 36 month follow-up (Figure 11). Overall, Group J's use of health services had declined more than Group E's. The only exception to this was admissions to psychiatric units, but as Figure 11 shows there was considerable volatility in both groups usage intensity over the three years.

With respect to Group E, Figure 8 shows that they presented to emergency hospital departments slightly less often (2.7 times at baseline versus 2.1 times at the 36 month follow up); Figure 9 shows that they spent slightly fewer days in hospital at the 36 month follow up than baseline (4.7 days against 6.9 days at baseline), while Figure 10 shows that Group E required emergency psychiatric assistance more often at the 36 month follow up than they did at baseline - 1.7 times at baseline against 2.0 at the 36 month follow up.

Overall, the key pattern to note is that those in Group J who used health services over the course of the trial tended to stay for shorter periods and required less intensive and costly interventions. This suggests that access to housing and enhanced support services can generate reductions in the amount of time people spend in hospital or require emergency hospital assistance.

Figure 8: Average number of times used emergency hospital (users only)

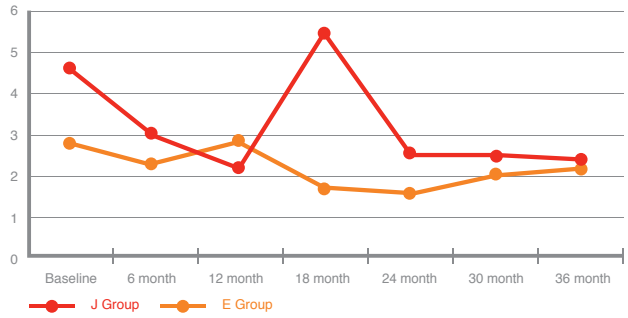


Figure 9: General hospital admission Average number of days (users only)

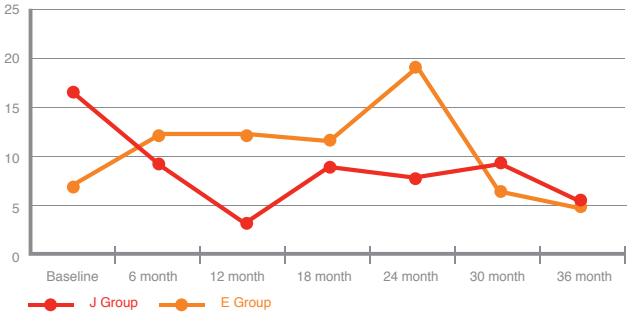


Figure 10: Average number of times used emergency psychiatric services (users only)

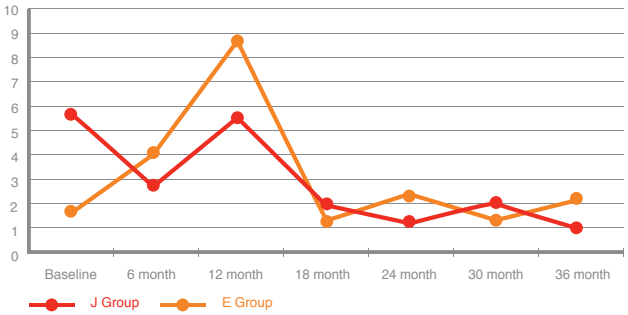
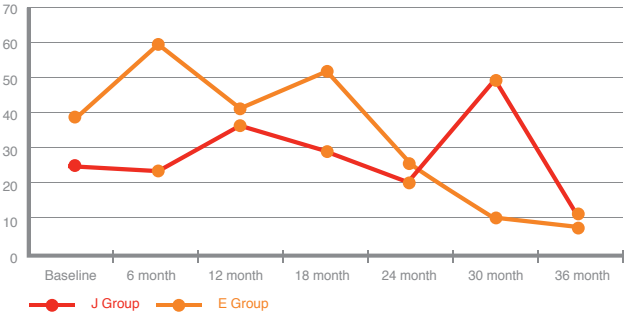


Figure 11: Psychiatric unit admission, average number of days (users only)



3.4.3 AVERAGE USE

In this section we combine the two previous measures to generate the average health service usage per individual, or the *average use*. Figure 12 shows that at baseline both groups used emergency hospital services on average 1.5 times in the previous six months. After 36 months both groups average use of emergency hospital services declined to around 0.6, although the decline over the full three years was slightly larger in Group J.

Figure 13 shows that the average number of times Group J presented for emergency psychiatric assistance declined considerably from on average 1.5 times at baseline to 0.1 times at the 36 month follow up, while there was no material change in Group E's average use throughout the trial.

When we examine the average number of days people have been hospitalised the pattern is clearer. Figure 14 shows a reduction of about 68% in the average number of days Group J has been hospitalised (4.4 days at baseline versus 1.4 days at the 36 month follow up). Among Group E participants we observe a 73% increase over the first two year period in the average number of days they are hospitalised, but we then observe a substantial decline in the final 12 months from 5.2 days to 1.2 days at the 36 month follow up. While both groups are, on average, admitted to hospital for similar amounts of time at the 36 month follow up, the overall reduction observed in Group J is larger because their starting point was higher and at each survey Group E's average was substantially higher than Group J's.

Finally, with respect to the average number of days people have been hospitalised in a psychiatric unit, Figure 15 shows Group J reported they spent on average 0.6 days in the six months prior to the 36 month follow up in a psychiatric unit compared to six days at baseline. Group E's average use has also declined, and after three years is slightly lower than Group J, but they are coming off a lower starting point, and there are also marked increases in the average number of days in a psychiatric unit at the 12 and 18 month follow up.

Although there is some variation in the use of health services with both groups showing greater improvements in some areas relative to the other group, the most important empirical finding is that Group J's average use of emergency psychiatric services and their average number of days hospitalised in general hospitals and psychiatric units has declined both over time and relative to Group E. Group J's need for emergency hospital treatment has also declined over time but less than Group E's.

This translates into a substantial health care impact and suggests that an intervention comprising stable housing and intensive case management can reduce the public burden associated with the over-utilisation of health services.

Figure 12: Average number of times used emegency hospital (incl non-users)

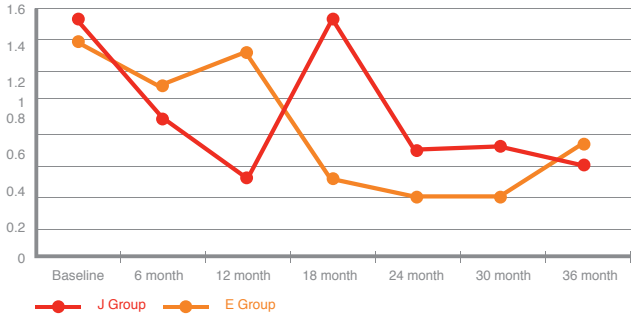


Figure 13: Average number of times used emegency psychiatric hospital (incl non-users)

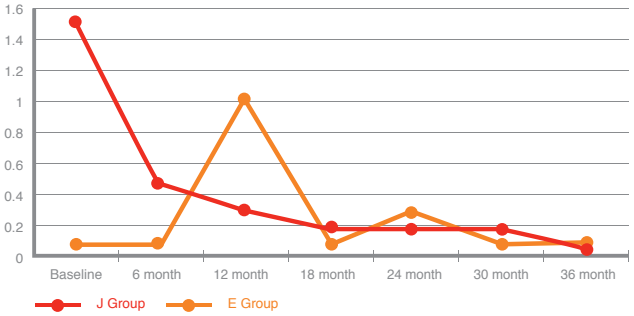


Figure 14: Avaerage number of days hospitalised (incl non-users)

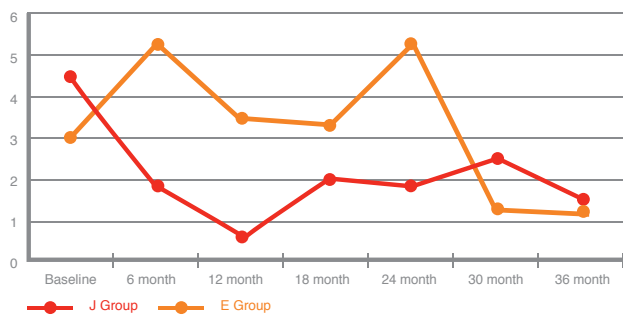
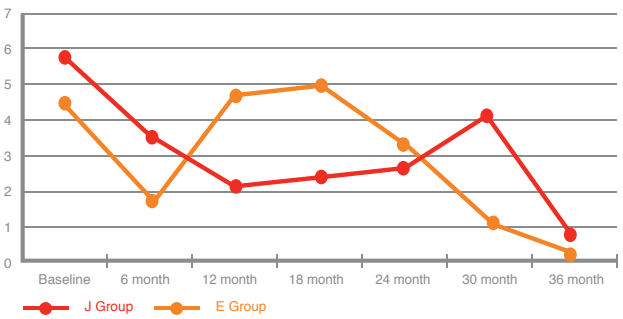


Figure 15: Avaerage number of days in psychiatric unit (incl non-users)

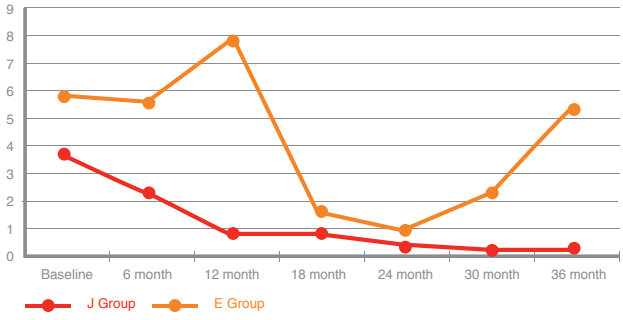


3.5 OTHER SERVICE USAGE

While the use of health services by the long-term homeless has generated considerable interest in the policy community around the world, we were also interested in what other services the trial participants used and whether their patterns of service use changed over the course of the trial. We were particularly interested in the use of homelessness services for two reasons. First, on a day to day basis, homelessness services cannot meet demand. Second, the chronically homeless use a disproportionate amount of service resources and any reduction could ostensibly free up resources.

There has been a significant decline in both groups' use of homelessness services over the 36 months (Figure 16). In Group J we observe a consistent decline from an average of 3.5 times at baseline to 0.2 times at the 36 month survey. In contrast, Group E's pattern is more volatile, changing little in the first 12 months, declining dramatically for the next 12 months and then rising again in the final year of the trial leaving it at much the same level as it was at baseline. Group J's use of crisis facilities also declines consistently over the three years, whereas Group E's use of crisis facilities is uneven with substantial increases recorded at the 6 and 24 month surveys (Table 2, appendix A). However the overall difference between the two groups is reactively small and statistically insignificant.

Figure 16: Average number of times used homelessness services, last six months



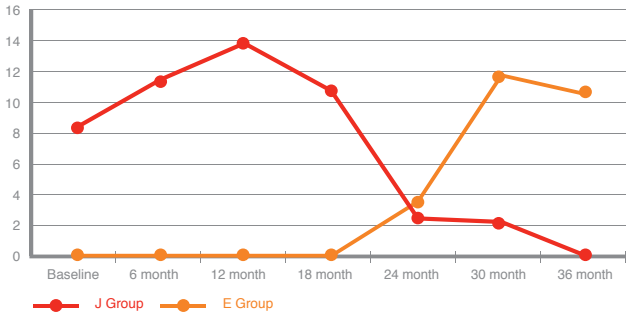
As was the case in the first 24 months there are no large or significant changes in most other service use indicators. The one area where a significant decline was observed was with the Sacred Heart Mission meals program. The number of times Group J used the meals program halved in the first 12 months (76 to 34 occasions) and subsequently stabilised at around 30 for the last two years. Group E's use of the meals program also declined in the first 12 months from 67 to 48 occasions but subsequently declined further to around 20 times at the 36 month follow up survey. While Group E is using meals programs less often now than at the start of the trial and compared to Group J, the overall decline observed in both groups is much the same.

There are also some changes in the participants' experiences with the justice system over the 36 month period. Group J's involvement with the justice system has declined slightly but not as much as Group E's. We found that the proportion of Group J charged with a criminal offence declined from 27% at baseline to 17% after 12 months, increased to 25% at both the 18 and 24 month follow-ups but subsequently declined to 18% at the 36 month survey. Thus, although the pattern is uneven, the proportion of Group J charged with a criminal offence at the 36 month follow up is nine percentage points lower than reported at baseline. For Group E there has been a more consistent decline from 24% at baseline to 6% at the 36 month follow up (Table 3, appendix A).

The proportion of Group J participants who were incarcerated went up slightly in the first year and then came down in the second year – at baseline 10% of Group J had been incarcerated in the six months prior to the survey and the equivalent figure for the 24 month follow-up was 5% (Table 4, appendix A). The proportion subsequently rose sharply to 16% at the 30 month survey and then declined to 3% at the 36 month survey. While the pattern is uneven, the overall trend is that fewer people in Group J are being incarcerated after three years than at the start of the trial. In contrast, Group E start at a lower point (2%) and no-one reported being incarcerated in the 6, 12 or 18 month follow-ups. However, at the 24 month follow up 6% of Group E participants reported they had been incarcerated in the previous six months and this remained relatively constant across the 30 and 36 month follow up surveys.

In the 24 month report we noted that when we examined the average number of days in prison an interesting pattern had emerged. In the first year the average number of days Group J spent in prison was 11.5 at the 6 month survey and 13.8 days at the 12 month survey. The average number of days subsequently declined to 10.8 at the 18 month survey and then to 2.5 at the 24 month follow up. At the 36 month survey the average number of days had declined to 0.1 (Figure 17). In contrast the average number of days incarcerated in Group E stayed at zero for the first 2 years but has subsequently risen considerably. While Group J clearly had a higher rate of incarceration in the first year, this was often due to offences committed before the J2SI trial began and the subsequent decline in the average amount of time incarcerated is perhaps a truer reflection of the impact of J2SI.

Figure 17: Average number of days incarcerated, last six months



3.6 SUBSTANCE USE

When the evaluation started, a significant majority of the trial participants reported long-term problems with substance use – over 70% reported a history of IV drug use, and on average they first started injecting drugs at 17 years of age. Substance use among the long-term homeless is problematic for three reasons. First, long-term substance misuse has major implications for health, and the risk of premature death is greatly increased. Second, illicit drug use increases the risk of being exposed to violent and unpredictable situations and/or becoming involved in the criminal justice system. Third, substance misuse is a major barrier to exiting homelessness.

Over the first two years we found that not much had changed for either group. Our findings support other similar studies which consistently show little if any reduction in drinking and virtually no decline in illicit drug use among marginalised populations such as the long-term homeless, prisoners and people with mental health problems (Tsemberis 1999; Tsemberis and Eisenberg 2000; Gulcur, Stefanie, Shinn, Tsemberis and Fischer 2003; Tsemberis, Gulcur and Nakae 2004; Padgett, Gulcur and Tsemberis 2006; O'Connell, Kasprow and Rosenheck 2009).

In this section we are interested in whether the participants' patterns of substance use have shifted over the full three years of the trial, and in particular the last 12 months. As with previous reports we examine the drugs the participants used in the last six months and, if they did use, whether there has been a shift in the frequency they consume[4].
We recognise that these measures are limited, particularly as they do not include the amount people consume. Although attempts were made to collect detailed information on the amount people consumed the quality of the data was poor. We also note that measuring changes in patterns of drug use is problematic. Researchers use a variety of measures to understand substance use and there is considerable debate in the literature about what constitutes the best measures (Leukefeld and Bukoski 1991).

Furthermore, problems with recall, the stigma attached to drug use and also changes in the availability of drugs, influence what people report. Given the challenges collecting reliable data on drug using behaviour and that many of the changes we observe are too small to make meaningful comparisons, we refer readers to Tables 5, 6, 7 and 8 in appendix A for more detailed information.

Notwithstanding these issues, we found the use of illegal drugs remains a big issue for both groups. At baseline just over two thirds (67%) of Group J reported using illegal drugs in the six months prior to the survey. This had increased by 9 percentage points (to 76%) at the 24 month survey, but subsequently declined to 70% at the 36 month survey. In Group E there was a similar pattern where the proportion using illegal drugs increased from 74% to 81% over the first two years, but had subsequently dropped to 71% at the 36 month survey. In both groups the proportion using illegal drugs remain unchanged after three years.

[4] In the analysis we are interested in those who reported consuming frequently.
We define frequent use of drugs as consuming daily or weekly (including 2-3 times a week).

Alcohol and cannabis were the most commonly used drugs. In Group E the proportion using alcohol dropped by 30 percentage points over the three years, from 74% at baseline to 44% at 36 months. In Group J the proportion using alcohol also declined, but by about half as much (from 68% at baseline to 50% at the 36 month survey). The proportion using cannabis remained relatively constant in Group E (57% at baseline, 59% at the 24 month survey, and 61% at the 36 month survey), but there was an eight percentage point decline in Group J over the same period – from 61% at baseline to 53% at the 36 month survey.

Benzodiazepines were the next most commonly used drugs. Benzodiazepines such as Diazepam, Valium and Xanax are a prescription drug favoured by some because they are cheaper, easier to access and mimic the effects of opioids like heroin. But benzodiazepines can be highly addictive when they are used regularly (Ashton 2005). At baseline about half of the participants in both groups reported they had used benzodiazepines in the previous six months. However, the proportion of people using benzodiazepines declined from baseline by 26 percentage points for Group E and 13 percentage points for Group J.

We were particularly interested in changes in the use of heroin over time as it is a major barrier to exiting homelessness. Heroin is highly addictive and often leads to a destructive cycle that involves raising money, often through illegal means. Over the 36 month period we observe a 31 percentage point decline in the proportion of Group E using heroin (46% to 15%) and a 15 percentage point decline in Group J over the same period (39% to 24%).

In contrast to heroin, the use of methamphetamines (ice) had increased in both groups and over time. Among Group J it had risen from 19% at baseline to 27% at the 36 month survey, while in Group E it rose from 10% to 15% over the three year period.

While the overall pattern is uneven - in some areas we observe increases in the proportion of people using, in other areas the proportion is more or less stable, and in some areas there have been improvements – two points that stood out in earlier reports remain. First, a high proportion of the trial participants in both groups continue to use illicit drugs. Second, Group E still appear to be doing slightly better.

The second area we examined was the frequency of substance use. Over the three year period there was little material change in the frequent use of alcohol - it decreased 4% to 3% for Group J but increased from 7% to 9% for Group E. We observe greater change (and volatility) in the frequent use of illegal drugs. In Group J the rate increased by 22 percentage points (from 42% to 64%) but it declined by 6 percentage points (from 62% to 56%) for Group E. Even taking into account the different starting points of the two groups, the proportion of people who frequently used illegal drugs is higher in Group J than in Group E.

For Group J, the rate of frequent use increased across almost all types of drugs - there was an 11 percentage point increase in the proportion who used heroin frequently. This contrasts with an 18 percentage point decline for Group E (from 27% to 9%). The frequent use of Benzodiazepines remained constant in Group J (33%) but decreased by 17 percentage points in Group E (from 44% to 27%). The only declines we observed in Group J's frequency of use were alcohol and amphetamines (speed), but they were small and statistically insignificant.

While the overall pattern suggests that both groups are doing better, the amount of improvement is generally small and we are cautious about making any claims regarding the efficacy of the J2SI approach with respect to substance misuse.

The findings are not entirely surprising for two reasons. First, the literature clearly shows that the capacity of programs to effect change among homeless people with active addictions are limited. Second, J2SI's approach emphasised helping people to manage their substance use in a way that reduced physical and emotional harm and also reduced the risk of losing their housing.

We think the key lesson to learn from J2SI is not that addressing substance abuse among the long-term homeless is difficult, there is already ample evidence of this. Rather, it is that the long-term homeless with an active addiction can maintain their housing and this can be a foundation for better health, a reduced risk of premature death but also part of a broader process of change that individuals manage at their own pace and according to other circumstances in their life.

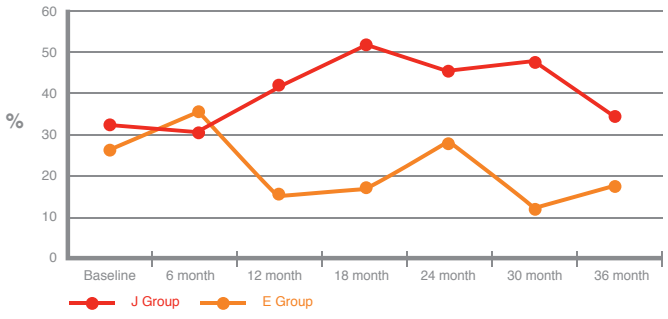
3.7 ECONOMIC PARTICIPATION

When the trial started none of the participants were working, most had not worked for many years and a significant majority (about 70%) were not looking for work. A key goal of the J2SI pilot was to improve the labour force participation rate, indicated by the percentage of respondents who were either doing paid work or looking for paid work.

At the baseline survey labour force participation for Group E and J were similar – 26% and 30% respectively (Figure 18). However, over the course of the trial labour force participation rates among the two groups were very different. After 18 months, just over half (51%) of Group J were either looking for work or were working. The rate subsequently began to fall and after three years labour force participation was 35%, or just five percentage points higher than at baseline.

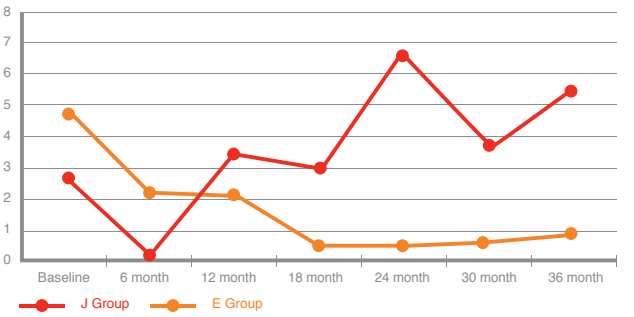
While this is a very modest improvement, a comparison with Group E is revealing. Figure 18 shows that apart from the results from the 6 month survey, labour force participation in Group E is much lower than Group J in every period, and after three years 18% of those in Group E were participating in the labour force, or about half the rate reported in Group J (35%). These findings suggest two things. First, improving labour force participation among the chronically disadvantaged is possible but it is also very difficult to maintain. Second, that without intensive assistance of the sort offered by J2SI the long-term homeless risk becoming further disaffiliated from the labour market over time.

Figure 18: Labour force particpation rate (%)



As with the previous report, a more detailed analysis of labour force participation reveals that changes in the rate are primarily driven by changes in the number of people looking for work. After 12 months the proportion of Group J unemployed but looking for work increased from 27% to 31%. It then increased to 36% after 24 months. After this it started to decline and by the 36 month follow up had fallen to 21% - that is about 1 in 5 Group J participants was actively looking for work. In Group E, it declined substantially over the three years, from 21% at baseline to 3% at the 36 month survey.

Figure 19: Average number of times used employment services



The higher proportion of Group J participants looking for work corresponds with a significantly higher use of employment services relative to Group E over the course of the trial (Figure 19). At baseline, the average number of times people used employment services in the previous 6 month period was 2.6 times per person in Group J and it was 4.8 times per person for Group E. At the 12 month follow up the average number of times people in Group J used employment services had increased to 3.4 times per person in the previous 6 months, while the equivalent figure was 2.1 times per person in Group E. At the 24 month follow up, the average number of times people in Group J used employment services has increased to 7 times per person in the previous 6 months, while it had declined substantially to 0.5 times per person in Group E. By the final interview the average number of times people in Group J used employment services was 5.5 times per person in the previous 6 months, or about twice the average reported in the baseline survey. In contrast, the equivalent figure was 0.9 times per person in Group E, or less than a quarter reported at baseline.

While enabling participants to be ready and actively looking for work is an important indicator, doing paid work is a key measure. However, getting and keeping a job is a significant challenge for the long-term homeless. At the 36 month survey five people in each group were in paid employment, although at the 12, 18 and 30 month follow up more people in Group J were working (Table 9, appendix). While this suggests that intensive intervention can make a difference, the reality is that the work available to the long-term homeless is often insecure. The main types of employment have been of a casual nature and this reflects the difficulties that many marginalised workers face in the contemporary labour market.

While the signs are that J2SI made a difference to workforce participation it is important to be realistic about what services can achieve. This is particularly so in a context where the goal of social inclusion is commonly equated with economic participation. For the long-term homeless the probability of re-integration into the community via the workforce is relatively small. Thus while the evidence shows that the impact of J2SI is substantially larger than that of existing services, the reality is that between two thirds and four fifths of the trial participants are still outside the labour force.

Economic participation is not the only route to social inclusion. In this context the extent to which the long-term homeless trial participants feel supported by and connected to the broader community is another, arguably more relevant indication of the extent to which the participants feel socially included. In the next section we examine whether over the course of the trial there have been any changes in the extent to which the participants feel supported by, and connected to the broader community.

3.8 SOCIAL CONNECTEDNESS, SUPPORT AND SATISFACTION

J2SI had high aspirations that through a combination of stable housing and intensive support participants would feel more connected to the mainstream community by the end of the three year trial. The high value placed on improving the participants' sense of social connectedness, reflected an understanding that community links can help prevent the re-occurrence of homelessness, and also the deeper more intrinsic value that people derive from having a meaningful role in the community. However, the importance attached by J2SI to social connections under-estimated the challenge of overcoming the 'deep' social exclusion and the sort of functional adaptations that are common among the long-term homeless.

The evidence that emerged from the first 24 months of the trial indicated that assisting the long-term homeless to disengage from their social networks is a complicated task. While the long-term homeless occupy what is seen by the broader community as a devalued social and cultural landscape, that space is integral to each individual's sense of identity. The distinct codes, rules, lexicons and hierarchies of power that provide structure to day-to-day life, are also the very mechanisms that perpetuate social exclusion.

Thus, despite commendable progress with respect to the participants' health, service usage, and housing, on the two measures we use to investigate the participants' feelings of social connectedness – the social acceptance scale and the social support scale[5] – we observe little change over the course of the trial. Figures 20 and 21 indicate that both groups reported similar levels of social support and social acceptance throughout the trial, which suggests that the impact of the J2SI pilot was minimal. Further, while Figures 20 and 21 show that the results drifted slightly upwards for the first 24 months, they also indicate that for the final 12 months of the trial there was no further improvement. In fact, after 36 months the reported levels of social support are only marginally higher for both groups than at baseline. And, while the gap between baseline and the 36 months results is larger with respect to the social acceptance scale, the difference is trivial.

[5] For a full explanation of how we created the two scales see Johnson *et al.*, 2011)

Figure 20: Social Acceptance Scale

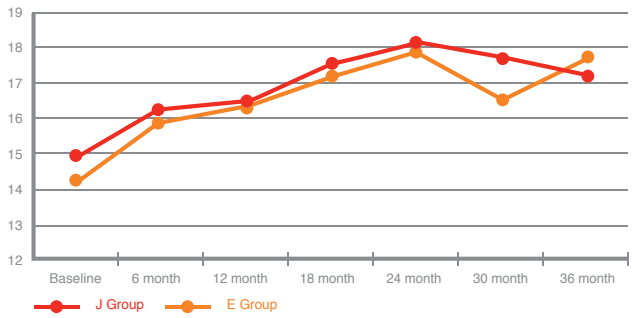
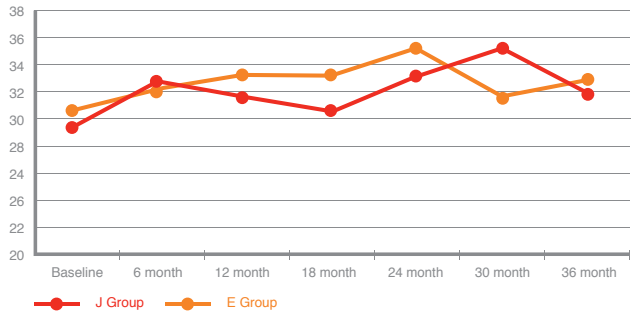


Figure 21: Social Support Scale



Without repeating what was said in the 24 month report, the evidence after 36 months emphasizes the point that the transition out of homelessness and the capacity to overcome deep social exclusion has to be understood in terms of the participants' biographical experiences and also their adaptations to homelessness itself. Not only do the social, systematic and structural experiences of the long-term homeless leave lasting emotional scars, but their functional adaptations to day-to-day life outside of traditional institutions and social roles makes incorporation back into mainstream society a slow, complex and difficult journey. Nonetheless, no matter how challenging the transition out of homelessness may be, it is certainly not an impossible one. After 24 months Amy told us that she had:

> *… started to get involved with a place called ***** … And I go to a couple of their activities a week. So I get out about two, three times a week for a couple of hours whereas before I was just always at home and only went out for medical appointments.*

The trial provides strong evidence that the transition out of homelessness is a complex process and that leaving behind established social networks, social practices, routines and roles that are often integral to each individual's sense of identity and sense of belonging is not easy. Malcolm who had been in stable, permanent housing for over two years reflected on the negative character of his old social networks. He said that he found it hard when:

> *… a lot of people around you … just want you to fall. It's like a tall poppy syndrome… people tend to take more notice of who falls rather than who stands.*

Building new social connections takes time, as does building the sort of cultural and economic capital that is a necessary part of being a member of 'conventional' society.

3.8.1 SATISFACTION

Social scientists have shown an increasing interest in life satisfaction as a subjective measure of well-being. How satisfied we are with life is influenced by a range of social, cultural, economic, and personal factors and events. Research has identified a sense of connection to a community as one of the more significant factors that contribute to having a favourable attitude towards life. Along with community involvement, strong personal relationships and paid employment also play a prominent role in how happy and satisfied we are. At the same time events such as violence, death, jail, injury and separation have a negative impact on how satisfied and happy we are.

As we noted earlier in this report, we included a range of questions about life satisfaction drawn from the HILDA survey in our final survey. Data from HILDA, which is a national longitudinal survey with over 13,000 respondents, shows that Australians are generally happy with their lives, with an average response to the question 'how satisfied are you with your life' of 8 out of 10 (Wilkins 2013). When we asked the participants how satisfied they were with their life three years ago, the mean score was 3, with little difference between the two groups (Table 4). When we asked 'how satisfied are you with your life now' the average response was 5, again with little difference between the two groups.

Table 4: Satisfaction, average scores, both groups (scores between 0-10).

	Group J (n=34)	Group E (n=32)	HILDA Male	2010* Female
How satisfied with life (now)	5.0	5.2	–	–
Compared to three years ago	3.0	3.0	–	–
Employment opportunities	3.4	2.8	7.1	7.0
Financial situation	4.0	4.2	6.4	6.4
Part of local community	4.6	4.3	6.7	6.8
Your health	4.8	4.9	7.3	7.1

* Source Wilkins 2013

Table 4 also provides an indication of the participants' satisfaction in four other areas of their lives – their perception of the employment opportunities available to them, their financial situation, their health, and their involvement with the local community. The results are uniformly low compared to the broader community. Further, the fact that there is little difference between the two groups suggests that the effects of deep social exclusion are pervasive and persistent. As Tsemberis (2010:52) notes, interventions may indeed end long-term homelessness, but they often do little to address the 'normal everyday misery of extreme poverty, stigma, and unemployment'.

The low levels of satisfaction reported by both groups is a cogent reminder of the damaging impact of long-term homelessness and social exclusion on people's sense of self, and their hopes and aspirations for the future. However, the life satisfaction of the participants is better now than three years ago and we have qualitative information that some people did have a more positive view of the world. Jobe told us that:

> *…J2SI has helped me out in the personal wise and mentally as well. I've managed to get a car. I've got my house set up and none of these things would be capable without J2SI. I feel more positive in what I'm doing these days when I've got to do something, or go somewhere, I'm more positive about what I've got in my mind and what I'm doing.*

Jobe's comments raise the question of how long the negative effects of homelessness and social exclusion last for. In the next report we will examine various aspects of life satisfaction once again to try and shed some light on how persistent are the effects of long-term homelessness and deep social exclusio

4. COST BENEFIT ANALYSIS

Effective policy and service delivery must be informed by evidence about what works, for whom, and in what circumstances. An equally important consideration is at what cost. Policy makers have limited resources and they need to ensure that the resources they have are 'directed to the programs that are the most cost effective' (FaHCSIA 2008:58). In this chapter we present our findings on the economic impact of the J2SI program.

In earlier reports we noted that there are various techniques to analyse the costs and benefits of social programs (Johnson *et al.*, 2012). The two most common are cost-benefit analysis (CBA) and cost-effectiveness analysis (CEA). Both are useful tools for program evaluation as they enable policy makers to compare different programs and allocate resources more efficiently. We use a CBA, which is considered the best approach to use when social programs have several objectives and multiple outcomes, as is the case with J2SI.

Briefly, a CBA places a dollar value on program costs. Program outcomes (or benefits) are then turned into monetary values. Monetary values are then used to generate a net benefit ratio where the monetarised program benefits are divided by total program costs. While the final output of a CBA makes comparisons across different types of programs relatively easy, it is challenging to put a monetary value on all outcome measures and a CBA often requires a range of assumptions.

Irrespective of what approach is used to examine the economic impact of a social program, the most important issue is how outcomes are measured. Although it is often the case that the outcome measures social programs use are idiosyncratic, the more critical issue is in fact the difficulty of attributing an outcome to a specific program when there is no control group. Finding a proper control group is difficult and most Australian studies do not use them. The lack of a control group or even the use of a non-equivalent comparison group (Flatau, Zaretzky, Brady, Haigh and Martin 2008) commonly result in an over-estimation of a program's impact.

In this evaluation the random assignment of participants ensured that there were no systematic differences between the characteristics of the treatment and control group prior to the commencement of the J2SI pilot. This means that we can use the outcomes of a control group as reliable proxies for the outcomes of the J2SI participants in absence of the J2SI intervention.

Thus, the benefit of the J2SI program can be obtained by calculating the difference between the average outcomes of the treatment group and the average outcomes of the control group. It is important to make the point that Australian studies that examine various interventions designed to end homelessness typically favour CEA and do not include proper control groups. As such comparing our results with ostensibly similar evaluations is misleading.

4.1 QUANTIFYING COSTS AND BENEFITS: PRELIMINARY CONSIDERATIONS

The first task was to obtain detailed information on the costs of the J2SI program. This was relatively straight forward and we sourced the data directly from Sacred Heart Mission.

The next step, quantifying the benefits attributable to the J2SI program, was slightly more complicated. We did this by measuring the differences in average outcomes between J and E groups and then assigning a monetary value (in 2012 dollars) to the benefits. As both cost and benefit items cover multiple time periods, a discount rate of 4% is applied to both to obtain net present values[6]. We then present the net benefit by subtracting the cost the of J2SI program from the estimated benefit. The detailed procedures are listed in appendix B.

However, it was not possible to measure the monetary value of various 'intangible' benefits such as improvements to participants' self-esteem, or improvements in their sense of connectedness to the local community. Yet, as we know from the literature these 'intangible' benefits are important for the long-term homeless. This means that our estimate is likely to underestimate the full benefit of the J2SI program.

Another difficulty is the projection of future outcome(s). The benefits of the J2SI program may accrue over many years into the future. But, due to the high volatility of the outcomes in both groups, it is difficult to tell exactly what will happen in the future – some participants trajectories may broadly follow the existing trend, but for others their circumstances may well deteriorate. We include a 10 year projection based on the number of lives saved to highlight the importance of future outcomes.

[6] The 4% rate is based on the Treasury indexed bond rate which is commonly used in cost-benefit analyses.

4.2 COST OF THE J2SI PROGRAM

The first step in costing the J2SI program involved identifying set-up costs. Set-up costs, which include office set-up and staff time during the establishment phase, were $145,000. Set-up costs have been excluded from the analysis. In the next step, we separated the J2SI program costs into six components. They are:

1. General management and governance.
2. Intensive Assistance and Co-ordination (IAC) – case management.
3. Building Up and Developing Skills (BUDS) programs.
4. Therapeutic intervention.
5. Other service delivery.
6. Operational costs.

Further information on the six cost areas is listed in Appendix B. Table 5 provides the costs of the J2SI program over three years. It shows that the total cost per participant was just over $80,000, and that case management accounted for approximately two thirds of the cost.

Table 5: Cost per person for the full three years of the J2SI program

Item	
Project management and governance	$9,032
Case management (IAC)	$55,829
BUDS	$5,334
Therapeutic intervention	$2,114
Other service delivery costs	$2,744
Operational Costs	$8,533
Total	**$83,587**
Net present value cost per person	$83,326

*All figures are converted to 2012 Australian dollars.

4.3 BENEFIT OF THE J2SI PROGRAM

The key benefits quantified in this report include employment gains and reduced use of health, employment, homelessness and accommodation support services, as well as drug and alcohol, gambling support, justice system and parenting support services. Table B1 in the appendix provides a full list of the items we used to calculate the benefits, the sources of our price data, and the assumptions that were made in determining the unit prices of each benefit item.

Table 6 (below) shows our estimate of the benefit per person to both government and society. The positive numbers in the table reflect gains from J2SI while the negative numbers indicate losses[7]. The present value of the total benefit of J2SI is considerably higher for society ($19,811) than for government ($7,379). The difference between the two figures primarily stems from accommodation and support services. Only support services are included in the calculation of the benefit to society while the subsidies government provides for accommodation (eg public housing subsidies) are included for government budgetary consideration. It is important to note that some of the subsidies were derived from the opportunity cost of public housing, and may not be the actual costs to government if a cash flow approach was applied.

Table 6: Benefit of J2SI over the three year period ($ per participant)

	Society	Government
Earnings	957	–
Tax and transfer	–	2,780
Health service	14,884	14,884
Drug and alcohol services	945	1,281
Accommodation and support services	13,121	-2,100
Other services	203	203
Contact with justice system	-9,605	-9,605
Total benefit (per participant)	$20,504	$7,442
Present value (per participant)	**$19,811**	**$7,379**

Note: 1. For government, employment includes tax and transfers incurred based on their earnings.
2. Due to the effect of rounding, the sum of all benefit items is not identical to the total benefit reported.

We consider increased earnings a benefit to society, while increases in tax and reductions in income support payments are considered a benefit to government. However, given that the employment rate in both groups is very low, the difference between the two groups is small.

[7] We use Group J *minus* Group E to calculate the employment benefit. For the remaining calculations we use Group E minus Group J.

In terms of health service use, we assume all treatments are publicly funded given the degree of disadvantage among this population. Similarly, there are no differences between government and society perspectives for the cost of drug and alcohol detoxification services, contact with justice system and other services, as we assume these services are all government funded.

What we found is that the major societal benefit of the J2SI program is the reduction in health services and accommodation and support services. Overall, the economic benefit to society of the J2SI intervention in both areas is approximately $28,000. Although this is a positive economic outcome, the negative benefit in the justice system area remained high – over all, contact with the justice system was higher for Group J than Group E. However, the high justice costs were incurred in the first 18 months of the program and in the final year we observe a substantial decline in Group J's contact with the Justice System. While the decline was not enough to offset the costs accumulated in the first two years, the subsequent decline in the amount of time incarcerated is perhaps a better reflection of the impact of J2SI.

4.4 NET BENEFIT OF THE J2SI PROGRAM

In this section, we present the two commonly used measures in CBA – the net benefit and the benefit-cost ratio. The net benefit, in which costs are subtracted from the benefits, shows the size of the return. The benefit-cost ratio measures the return per dollar invested – for example where the benefit-cost ratio is 1.5, this means that for every dollar invested the return or savings to the community is $1.50. A benefit-cost ratio that is greater than one indicates the benefits exceed the costs.

Based on the estimates discussed in the previous two sections, the last column in Table 7 shows that over the three year period the costs outweigh the benefit, from both a government and society perspective – for every dollar invested the return is 0.22 and 0.15 respectively. In both cases the benefit-cost ratio was lower than reported after 24 months, where the NPV for government and society was 0.24 and 0.35 respectively. The change reflects the higher health service usage for Group J than Group E in the third year. In the six months prior to the 30 month follow up survey, Group J spent, on average, a higher number of days in psychiatric units (Figure 15), a higher number of days hospitalised (Figure 14), and presented to emergency hospital departments more often (Figure 12). This outcome was largely driven by an increase in the intensity of use among those who presented to health services rather than an increase in the number of Group J participants requiring medical and/or psychiatric assistance (Figure 8 to 11).

Table 7: Net benefit (per participant) and benefit-cost ratio of J2SI program

	Benefit (per person)	Net benefit (benefit / cost)	Benefit-cost ratio (benefit / cost)
NPV government (basic)	19,811	-62,444	0.22
NPV society (basic)	**7,379**	**-68,044**	**0.15**
NPV society (statistical life-10 years)	106,119	23,864	1.30

The estimated benefit in our basic measure does not include the lives saved by the J2SI program – there were three lives lost among Group E and one in Group J. According to the *Best Practice Regulation Guidance Note - Value of statistical life* published by the Australian Government Department of Finance and Deregulation (2008), the value of a statistical life year in 2007 was $151,000. The value of a statistical life year is an estimate of the 'value society places on reducing the risk of premature death, expressed in terms of saving a statistical life year'. We adjusted the value to 2011/2012 dollars ($198,933)[8] and applied it to the benefits. If we assume the gap of two statistical lives between Group E and J persists for 10 years[9], the benefit becomes far greater than cost (a ratio of 1.30, or for every dollar invested a $1:30 return to the community). In dollar terms this represents a net benefit of nearly $24,000. However, while lives saved is a tangible benefit for both the individual and the community, placing a monetary value on a person's life is a contentious activity. Thus, the point of this exercise is to illustrate the potential size of under-estimation of the benefit of the J2SI program.

To summarise, although some important benefits defy quantification, the CBA shows that the J2SI program generates some positive economic outcomes in the areas of health service use, as well as accommodation and support service use. However, it also shows that the short-term costs are higher than the economic benefits. This is perhaps a timely reminder that cost savings should never be the sole determinant upon which a program should be assessed.

[8] The number is slightly different from the second report due to the revision of CPI index by the ABS.

[9] A UK study by the Crisis organisation (Crisis 2011) shows that the average age of death of a homeless person is 47 years old. The average age of our participants at baseline is 36.3. Therefore, we assume a 10 year statistical life. We also believe it is both plausible and conservative to assume a gap of two statistical lives over a 10 year period.

CONCLUSION

J2SI made a difference. The trial shows that relationship informed models based on persistence and trust, combined with a focus on rapid access to independent housing can turn the lives of the long-term homeless around. After three years J2SI had addressed homelessness for 85% of the participants. The rate of housing retention is more than twice what existing services achieved, and is comparable to the best results reported elsewhere in the world. J2SI shows that an Australian designed model can achieve world class results.

We found improvements in the emotional and physical health of J2SI participants, and also substantial reductions in the use of costly health and welfare services. We also found that J2SI had an impact on the participants' involvement with the criminal justice system, but this pattern emerged quite late in the trial.

Although the evaluation found improvements in a number of areas, the J2SI pilot did not have an impact in every area that we investigated. Substance misuse and social acceptance are two areas where we observed little change over time or between the two groups. These findings are interesting in as much as they raise the question of what constitutes a good outcome in these areas. With respect to substance misuse the findings corroborate what other studies have found – drug and alcohol interventions often have little direct impact on people's substance use behaviour. However, in enabling chronic substance users to stay alive in a safe and stable environment J2SI may well have provided the foundation for future change. Further, the short term cost savings were not as large as was anticipated. However, it would be unwise to ignore the potential longer term economic benefits, although these will always be hard to quantify. It is worth re-iterating that the way we estimate benefits in this evaluation is very different to other studies in this area. Our approach was to compare Group J and Group E outcomes. Most studies do not have a comparison group, so they often use baseline results of the treatment group or general population as the point of comparison. This severely over-estimates the benefits. In the next report we intend to demonstrate the possible size of the over-estimation using different methods.

Being housed and having persistent, reliable support are cornerstones upon which a successful transition out of homelessness rests. However, the evidence from the J2SI trial shows that even with housing and intensive support, addressing deep social exclusion is difficult. Irrespective of what assistance is provided there is no guarantee the long-term homeless can leave behind the stigma of their 'discredited past' or overcome the numerous social and economic disadvantages that have accumulated throughout their lives.

This is certainly not a new finding. Many international studies report much the same yet it has received little attention from Australian policy makers, service providers or advocates. It is an awkward truth that needs to be confronted by program designers and service providers. The salient issue here is that leaving homelessness behind focuses attention on the future and this is a confronting question for both participants and policy makers. Having a home is an important element in each individual's journey out of homelessness and back into mainstream society. Having a house provides a platform to address other issues and reduce the stigma of being homeless, but having 'a home does not make a life' (Padgett 2007). The difficulties and challenges the long-term homeless face in making connections and finding acceptance in the broader community is a timely reminder of how the effects of social exclusion are deep, pervasive, and ongoing.

Nonetheless, after three years the J2SI pilot has shown that assisting the chronically homeless is possible, and this deserves to be recognised and celebrated. Most of the J2SI participants are now clearly travelling a far more promising trajectory than prior to their involvement with J2SI.

The next test of the J2SI pilot will be whether the improvements reported here are sustained over the longer term. In 12 months time we will report on how the trial participants are travelling 12 months after the program closed. At that point we will be in the position to say whether the J2SI approach provides lasting solutions to long-term homelessness and whether the benefits justify the costs.

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APPENDIX A

Table 1: Report no bodily pain, last four weeks (%)

	Mean Group J	n	Mean Group E	n	pvalue
0m	27.3	33	23.8	42	0.738
6m	27	37	17.1	35	0.318
12m	33.3	36	20.6	34	0.235
18m	32.4	37	25.8	31	0.555
24m	44.7	38	27.3	33	0.128
30m	52.6	38	41.7	36	0.352
36m	41.2	34	38.2	34	0.808

Table 2: Number of times used crisis accommodation facilities

	Mean Group J	n	Mean Group E	n	pvalue
0m	0.6	33	0.7	42	0.066
6m	0.4	35	2.2	35	0.58
12m	0	36	0.6	34	0.099
18m	0.1	37	0.2	31	0.662
24m	0.1	38	2.3	33	0.32
30m	0.1	37	1.1	35	0.253
36m	0.1	32	0.5	34	0.823

Table 3: Charged with a criminal offence, last six months (%)

	Mean Group J	n	Mean Group E	n	pvalue
0m	27.3	33	23.8	42	0.738
6m	22.2	36	29.4	34	0.5
12m	16.7	36	20.6	34	0.679
18m	24.3	37	19.4	31	0.626
24m	24.3	37	9.1	33	0.087
30m	31.6	38	13.9	36	0.07
36m	18.2	33	5.9	34	0.128

Table 4: Incarcerated, last six months (%)

	Mean Group J	n	Mean Group E	n	pvalue
0m	9	31	2.4	41	0.228
6m	14.3	35	0	35	0.023
12m	13.9	36	0	34	0.023
18m	8.1	37	0	31	0.083
24m	5.4	37	6.1	33	0.908
30m	15.8	38	8.3	36	0.33
36m	2.9	34	5.9	34	0.562

Table 5: % Who used in the last six months, Group J

	Survey period						
	0	6	12	18	24	30	36
Alcohol	68	55.6	65.7	58.3	70.3	56.8	50
Heroin	39.3	29.7	31.4	31.4	30.6	35.1	24.2
Methadone	39.3	36.1	30.6	34.3	36.1	38.9	31.3
Ice	18.8	11.4	30.6	32.4	18.9	25	27.3
Speed	22.6	22.9	16.7	14.3	7.9	2.7	3
Benzodiazepines	45.8	50	54.3	45.7	43.2	50	33.3
Cannabis	60.9	44.1	63.9	58.8	48.6	54.3	53.1
Illegal drugs	66.7	64.9	80.6	80	76.3	73	69.7

Table 6: % Reported using frequently in the last six months, Group J

	Survey period						
	0	6	12	18	24	30	36
Alcohol	4	8.3	5.7	8.3	13.5	5.4	3.1
Heroin	7.1	16.2	8.6	17.1	19.4	10.8	18.2
Methadone	39.3	33.3	30.6	34.3	36.1	38.9	31.3
Ice	3.1	0	5.6	8.8	8.1	8.3	15.2
Speed	6.5	2.9	0	2.9	0	0	3
Benzodiazepines	33.3	38.2	48.6	37.1	35.1	41.7	33.3
Cannabis	34.8	32.4	44.4	41.2	40	45.7	53.1
Illegal drugs	42.4	48.6	63.9	62.9	65.8	67.6	63.6

Table 7: % Who used in the last six months, Group E

	Survey period						
	0	6	12	18	24	30	36
Alcohol	74.4	61.8	60.6	58.6	67.7	52.8	43.8
Heroin	45.9	34.4	40.6	30	29	17.1	15.2
Methadone	36.8	44.1	51.5	45.2	48.4	47.2	48.5
Ice	10.3	17.1	14.7	9.7	12.5	16.7	15.2
Speed	15.4	5.7	11.8	9.7	12.5	2.8	2.9
Benzodiazepines	55.6	52.9	45.5	35.5	43.8	38.9	30.3
Cannabis	57.1	60	71	70	59.4	61.1	61.3
Illegal drugs	73.8	74.3	82.4	87.1	81.3	77.8	70.6

Table 8: % Reported using frequently in the last six months, Group E

	Survey period						
	0	6	12	18	24	30	36
Alcohol	7.7	17.6	9.1	10.3	12.9	11.1	9.4
Heroin	27	15.6	9.4	6.7	9.7	5.7	9.1
Methadone	36.8	44.1	45.5	41.9	48.4	47.2	48.5
Ice	2.6	2.9	0	0	0	5.6	3
Speed	2.6	0	2.9	0	0	0	0
Benzodiazepines	44.4	32.4	33.3	26.3	34.4	30.6	27.3
Cannabis	34.3	40	48.4	50	50	47.2	45.2
Illegal drugs	61.9	60	58.8	64.5	68.8	61.1	55.9

Table 9: Number of people employed

	Group J	Group E
0m	1	2
6m	1	1
12m	4	1
18m	5	1
24m	4	5
30m	8	2
36m	5	5

APPENDIX B: COST BENEFIT ANALYSIS: APPROACH AND ASSUMPTIONS

Steps to generate net benefit of J2SI program:

a. Calculate the average real benefit of J2SI program per person each 6-month period since program commencement for 3 years
b. Calculate differences in averages of each items between E and J (J – E for employment and J – E for other items)
c. Sum up results from step b for survey 6 and 12, and sum up for survey 18 and 24 to create annual figure
d. Apply discount rate 4% annual figure for both benefit and J2SI program cost and sum up the annual figures to obtain Net Present Value (NPV) of cost and NPV of benefit
e. Subtract cost from the benefit to obtain Net benefit. Net benefit ratio is defined as Net benefit (NPV) divided by cost

Cost Categories – detailed breakdown

1. General management and governance. This includes the J2SI manager (0.9 EFT) and a part-time project officer (0.26 EFT). We also factor in the opportunity cost of the CEO's time (0.05 EFT)[10]. The J2SI pilot is overseen by an external Steering Committee and a Service Delivery Committee and the evaluation is overseen by an Evaluation Reference Group. We ignore the opportunity cost of the time that Steering Committee, Evaluation Reference Group and Service Delivery Committee members spent on this project. Although the governance structure may potentially increase the quality of service delivery, there is no direct evidence of the size of the effect.
2. Intensive Assistance and Co-ordination (IAC). This includes the cost of a full time IAC manager, 10 full-time IAC case workers and staff training. Costs include both salary and on-costs. Staff time to assist with the evaluation are not included.
3. Building Up and Developing Skills (BUDS) programs. This component includes costs for 1 full-time BUDS coordinator and all BUDS related expenditure.
4. Therapeutic intervention. This component includes 0.6 EFT onsite psychologist (from September 2010 to the end of year 2) and payments for off-site treatments.
5. Other service delivery. This includes flexible funds for J2SI participants[11] and the costs of an employment consultant seconded from the Mental Illness Fellowship of Victoria[12].
6. Operational cost includes office occupancy and service costs, motor vehicle and travel expenses, amenities and overheads.

10 Due to privacy reasons we do not use the actual salary of Secret Heart Mission CEO to calculate the cost. We assume the salary and on-cost of a CEO of a medium sized NGO to be around $150,000 in 2012.

11 Every J2SI participant is allocated $500 flexible funds per annum. These funds are used for furniture and other household goods, groceries, rental arrears, recreation, legal costs and healthcare.

12 Twelve months into the pilot Sacred Heart Mission entered into a partnership with the Mental Illness Fellowship of Victoria to co-locate a specialist employment consultant full-time with the J2SI team. The employment consultant works alongside the BUDS Coordinator and the IAC casework team and focuses on securing employment for J2SI participants. Sacred Heart Mission contributes $25,000 per annum to this position.

Table B1: Definition of cost items and sources used in CBA

Cost item	Definition	Availability	Source
Health services			
GP consultation	Medicare benefits paid on non-referred GP attendances / Total number Medicare non-referred GP attendances	Victoria	Department of Health and Ageing. Medicare Statistics
Medical specialist	Medicare benefits paid on specialist attendances/ Total number of Medicare specialist attendances	Victoria	Department of Health and Ageing. Medicare Statistics
Other health services	Medicare benefits paid on other health services / Total number of Medicare other health services attendances	Victoria	Department of Health and Ageing. Medicare Statistics
Nights in hospital	Total admitted patient recurrent expenditure / total admitted patient days	Victoria	AIHW, Australian Hospital Statistics
Casualty or emergency	Emergency department average cost per occasion of service, by triage class, public sector, Australia	National average	Productivity Commission. Annual Report on Government Services
Outpatient	Non-admitted clinic occasions of service reported at Tier 0 clinics, public sector, Australia	National average	Productivity Commission. Annual Report on Government Services
Other health worker	Non-admitted clinic occasions of service for tier 1 clinics, sample results, public sector 2008-09. Cost per occasion of service	National average	Productivity Commission. Annual Report on Government Services
Ambulance	Total expenses / total number of patients transported	Victoria	Ambulance Victoria. Annual report
Day clinic	Total expenditure / total occasion of services for non-admitted clinics, total average	National	Productivity Commission. Annual Report on Government Services
Psychiatric ward	Average cost per occasion of service	National	Productivity Commission. Annual Report on Government Services
Night in psychiatric hospital	Average recurrent costs per inpatient bed day in psychiatric hospitals (all units)	Victoria	Productivity Commission. Annual Report on Government Services.
Community mental health services	Average cost of ambulatory care per day: cost per episode / number of average days per episode	Victoria	Productivity Commission. Annual Report on Government Services
Dentist	Average cost per occasion of service	National	Productivity Commission. Annual Report on Government Services
Needle exchange	Total spending on NSP (Needle and Syringe Exchange Programs) / Number of syringes exchanged	Victoria	Department of Health and Ageing. 2009. Return on investment 2: Evaluating the cost-effectiveness of needle and syringe programs in Australia

Cost item	Definition	Availability	Source
Justice services			
Charged with criminal offence	Court administration recurrent expenditure less income / total number of finalizations	Victoria	Productivity Commission. Annual Report on Government Services
Night in prison	Recurrent expenditure per prisoner per day	Victoria	Productivity Commission. Annual Report on Government Services
Child protection services	Average cost per incident calculated as weighted average of cost per notification, investigation and substantiation	Victoria	Productivity Commission. Annual Report on Government Services
Service usage			
Homelessness services	Cost per hour of consultation. Assume on average 1 hour per visit	Victoria	Sacred Heart Mission (award rate of community service worker grade 4 plus 25% on cost)
Job network services	Cost per hour of consultation. Proxied by hourly wage of full-time public employee in Victoria	Victoria	Australian Bureau of Statistics. TABLE 14B. Average Weekly Earnings, Private and Public Sectors, Victoria (Dollars) - Original – Persons
Parenting support services	Cost per hour of consultation. Proxied by hourly wage of full-time public employee in Victoria	Victoria	Australian Bureau of Statistics. TABLE 14B. Average Weekly Earnings, Private and Public Sectors, Victoria (Dollars) - Original – Persons
Neighbourhood house/community centre	Cost per hour of consultation. Proxied by hourly wage of full-time public employee in Victoria	Victoria	Australian Bureau of Statistics. TABLE 14B. Average Weekly Earnings, Private and Public Sectors, Victoria (Dollars) - Original – Persons
Gambling support services	Cost per hour of consultation. Proxied by hourly wage of full-time public employee in Victoria	Victoria	Australian Bureau of Statistics. TABLE 14B. Average Weekly Earnings, Private and Public Sectors, Victoria (Dollars) - Original – Persons
Consumer or tenancy services	Cost per hour of consultation. Proxied by hourly wage of full-time public employee in Victoria	Victoria	Australian Bureau of Statistics. TABLE 14B. Average Weekly Earnings, Private and Public Sectors, Victoria (Dollars) - Original – Persons
Other services	Cost per hour of consultation. Proxied by hourly wage of full-time public employee in Victoria	Victoria	Australian Bureau of Statistics. TABLE 14B. Average Weekly Earnings, Private and Public Sectors, Victoria (Dollars) - Original – Persons

Cost item	Definition	Availability	Source
Housing			
Crisis accommodation	Cost of support service per week Cost of accommodation per week	Victoria	Data obtained from the Victorian Department of Human Services Note: Cost of support services, only cost per person data is available, assumed 12 weeks services received per person to translate the figure to weekly figure
Community rooming house - shared facilities	Administrative cost per change of tenancy	Victoria	The actual location of the participants is unknown. Used information from St Kilda Community Housing as a proxy for all community housing
OoH (Public housing)	Administrative cost per change of tenancy	Victoria	Data obtained from the Victorian Department of Human Services
	Rent subsidy per week	Victoria	Market rent – 25% of household income per week
SRS (supported residential service)	Support services per week	Victoria	Assume the same as Queen's Road supportive housing
TH (Transitional housing)	Administrative cost per change of tenancy	Victoria	Information obtained from DHS
	Rent subsidy per week	Victoria	Market rent – 25% of household income per week – 15% of family tax benefit per week
Supportive housing - Queens Road	Support services per week	Victoria	Information obtained from Sacred Heart Mission
Supportive housing CommonGround	Support services per week	Victoria	Information obtained from Common Ground
Community housing	Administrative cost per change of tenancy	Victoria	The actual location of the participants is unknown. Used information from St Kilda Community Housing as a proxy for all community housing

• Note: 1. The administrative cost per change of tenancy for supportive housing is assumed to be the same as transitional housing.
2. For market rent, use DHS rental report table 9 moving annual median rent for inner Melbourne. If single or couple, use one bedroom flat. If a couple with children use two bed room flat. Sole parent use two bedroom flat.

Sources:

– Productivity Commission, 2012. *Report on Government Services 2012. Volume 1: Early Childhood, Education and Training; Justice; Emergency Management.* Canberra
– Productivity Commission, 2012. *Report on Government Services 2012. Volume 2: Health; Community Services; Housing and Homelessness.* Canberra.
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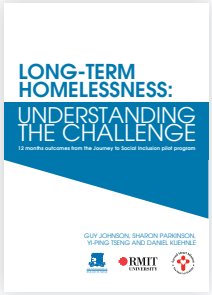
Internet

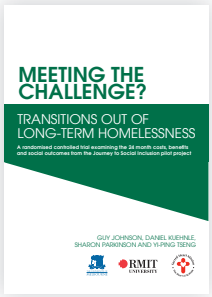
– DoHA, Medicare Statistics available from http://www.health.gov.au/internet/main/publishing.nsf/Content/Medicare+Statistics-1
– DHS rental report time series data from http://www.dhs.vic.gov.au/about-the-department/documents-and-resources/research,-data-and-statistics/current-rental-report

The first report examined 12 months outcomes from the J2SI pilot program and can be downloaded from http://www.sacredheartmission.org/



Johnson, G., S. Parkinson, Y. Tseng and D. Kuehnle (2011). *Long-term homelessness: Understanding the Challenge.* Melbourne, Sacred Heart Mission.

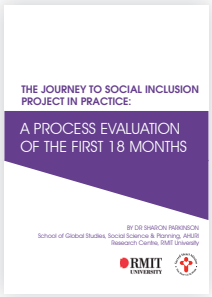
The second report examined 24 months outcomes from the J2SI pilot program and can be downloaded from http://www.sacredheartmission.org/



Johnson, G., Kuehnle, D., Parkinson, S. & Tseng, Y. (2012) *Meeting the Challenge? Transitions out of long-term homelessness A randomised controlled trial examining the 24 month costs, benefits and social outcomes from the Journey to Social Inclusion pilot program.* Sacred Heart Mission, St Kilda.

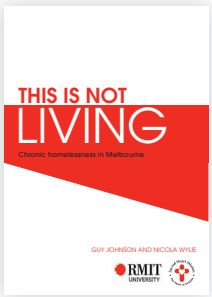
A fourth and final report will focus on what has happened to the trial participants 12 months after the program ends. It is due for release in August 2014.

For those interested in the process evaluation of the J2SI model, the first report can be downloaded from http://www.sacredheartmission.org/



Parkinson, S. (2012). *The Journey to Social Inclusion Project in Practice: A Process Evaluation of the First 18 months.* St.Kilda, Sacred Heart Mission.

For those interested in the participants' experiences of homelessness, the report can be downloaded from http://www.sacredheartmission.org/



Johnson, G. & N. Wylie (2010). *This is not living: Chronic homelessness in Melbourne,* Melbourne, Sacred Heart Mission.