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Evidence Check

Homelessness at Transition

An **Evidence Check** rapid review brokered by the Sax Institute for the NSW Family and Community Services and FACSIAR.

NSW GOVERNMENT Family & Community Services

FACSIAR INSIGHTS, ANALYSIS AND RESEARCH

An **Evidence Check** rapid review brokered by the Sax Institute for the NSW Family and Community Services and FACSIAR. November 2017.

This report was prepared by:

Elizabeth Conroy, Megan Williams.

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Enquiries regarding this report may be directed to the:

Manager
Knowledge Exchange Program
Sax Institute
www.saxinstitute.org.au
knowledge.exchange@saxinstitute.org.au
Phone: +61 2 91889500

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Homelessness at transition: an Evidence Check rapid review

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Contents

Abbreviations

AHMRC	Aboriginal Health and Medical Research Council
CHRN	Canadian Homelessness Research Network
HR	Hazard ratio (time-to-event analysis)
ILP	Independent living program
n	number (sample size)
NHMRC	National Health and Medical Research Council
OOHC	Out-of-home care
OR	Odds ratio
RCT	Randomised controlled trial
SHS	Specialist homelessness service

Executive summary

Background

People leaving government-funded services have an elevated risk of becoming homeless. This includes people with a history of out-of-home care, people who have been involved with the justice system or hospitalised because of a mental illness, and frequent users of hospital emergency departments. However, not everyone who has these experiences also goes on to experience homelessness. This review is interested in understanding who among these at-risk populations is most likely to experience homelessness when they leave government support and how we can best support people to prevent this from happening.

Some of the factors that contribute to homelessness are about the person (e.g. mental illness) while other factors are about the person's social environment (family support, violence in the community) and even the broader influences operating in society (availability of affordable housing and support services). This ecological framework helps in understanding how risk factors can operate across different levels and the level at which we should be providing services and support in order to reduce homelessness risk.

The purpose of this review was to describe the level of evidence regarding:

- The risk factors for homelessness among people leaving government-funded services and
- The interventions found to be effective in addressing this risk.

Six transition pathways, or 'at-risk' populations were considered:

- Young people leaving out-of-home care (OOHC)
- Young people leaving juvenile detention
- People leaving prison
- People leaving hospital
- People leaving mental health facilities
- People leaving social housing.

Methods

An integrative review was undertaken. This involved an electronic search of databases and websites to identify peer reviewed and grey literature that had been published since the year 2000. Both qualitative and quantitative studies were included, as well as program evaluations and program descriptions.

Studies about risk factors were initially included if they measured homelessness or housing status at the time of exiting a government-funded service or in the period immediately following this. Studies about interventions were included if they measured homelessness or housing stability and these findings were reported specifically in relation to the population of interest (i.e. young people leaving care or young people leaving juvenile justice rather than homeless young people more generally). However, not many studies were found that met these criteria. Additional searches were then undertaken to followup on the gaps identified. This provided supporting evidence for *potential* risk factors and *promising* interventions.

Results

A total of 975 unique records were identified from a database search and manual search of websites. Of these, 330 full-text articles and reports were read in full and 145 were included in the review.

The number of studies included for each pathway was: 34 for out-of-home care; 17 for juvenile justice; 56 for prison; 13 for hospital, 13 for mental health; and 12 for social housing.

Many of the studies included in the review do not provide direct evidence about risk factors or the effectiveness of an intervention. This is because housing outcomes were not always measured or the study population did not exactly match the population of people leaving government-funded services (e.g. all young people rather than young people aging out of care).

Overall, the evidence base for homelessness risk factors was insufficient for three transition pathways (juvenile justice, hospital and mental health) because there were too few studies to be able to grade the evidence with any confidence. The strength of evidence for the remaining three pathways (OOHC, social housing and prison) was considered to be low. The evidence reviewed for each of these pathways had a

number of limitations, including there being few studies that examined similar risk factors, differences in measurement of both risk factors and outcomes, and inconsistent findings across studies.

The evidence base for the effectiveness of interventions to address homelessness varied across pathways and by intervention. Although some interventions had a large evidence base, this was not always specific to the pathway populations that were the focus of the present review. Five interventions were reviewed for the OOHC pathway. Three of these had an insufficient evidence base (mentoring, transitional housing, Foyer models) and the strength of evidence for the remaining two interventions was considered to be low (age of leaving care, independent living programs). All four interventions reviewed for the juvenile justice pathway were assessed as having insufficient evidence (transitional housing, intensive fostering, Multisystemic Therapy, Wraparound). The three interventions reviewed for the prison pathway were of low strength (transition support services, after-care, transitional housing) and there was low-strength evidence for discharge planning and medical respite in the hospital pathway. Similarly, low-strength evidence was noted for discharge planning in the mental health pathway while the evidence base for supported housing was moderate. Finally, three interventions were reviewed for the social housing pathway. This included tenancy support, which was unable to be graded because of the low quality and low level of evidence of the studies in this area. There was low strength of evidence for legal and financial advice support services and insufficient evidence on hoarding and squalor interventions.

Discussion of key findings including gaps in the evidence

Risk factors for homelessness

Young people leaving care

A handful of studies prospectively or retrospectively measured risk factors for homelessness in this group:

- The most consistently reported risk factor was having a larger number of placements. This was found across all studies, regardless of study quality and methodology used. However no intervention studies were found that addressed this risk factor.
- Other indicators of instability found to be associated with homelessness included emotional and behaviour problems, childhood trauma and delinquency/criminal involvement. No intervention studies were found that specifically addressed risk associated with emotional or behavioural problems, although young people with these problems were commonly discussed as not benefiting from the interventions that are available.
- Few, if any, studies were from Aboriginal or Torres Strait Islander peoples' perspectives, despite this group being over-represented among people considered at risk of homelessness. Few studies identified specific risk factors for homelessness, considered particularly relevant among this population.

Young people leaving juvenile justice facilities

- No studies were found that directly examined risk factors for homelessness in this group. An Australian data linkage study identified females as potentially at greater risk for homelessness among a sample of young people with a juvenile justice history who subsequently sought assistance from the specialist homelessness service system.
- No studies examined risk factors for Aboriginal and Torres Strait Islander young people leaving juvenile justice facilities, despite this group making up around half of all young people in such facilities.

People leaving prison

Few studies have directly measured risk factors for homelessness or housing instability in this group; most of the studies examine homelessness as a risk factor for recidivism.

- Two studies found younger age at release and recidivism risk/reincarceration were associated with homelessness or housing instability.
- There was little consistency in program-level risk factors for homelessness or housing instability across the studies that directly measured risk factors.
- Supporting evidence suggests a range of potential risk factors including: problems with assessment of homelessness risk and poor transition planning as well as impoverished support networks post-release (family, community and formal support systems).

- Only a small number of qualitative or mixed-methods studies identified risk factors for Aboriginal and Torres Strait Islander people leaving prison despite the number of Aboriginal and Torres Strait Islander people in prison being approximately 15 times greater than non-Aboriginal people.

People leaving hospital

No studies were found that directly examined risk factors for homelessness in this group.

- Conceptually, if a person is identified as homeless upon presentation to hospital they will likely be homeless at discharge unless there is an intervention to prevent this.
- Preventing discharge to primary homelessness appears to be a more realistic and achievable outcome of discharge planning.
- There were no studies that reported on the needs and experiences of Aboriginal and Torres Strait Islander people.

People being discharged from psychiatric facilities

Four studies were found that examined homelessness risk factors for people in this group.

- Three studies found a significant association between comorbid substance use disorder and primary homelessness at discharge and follow-up; a cross-sectional study did not find a significant relationship and measured both primary and secondary homelessness.
- Two of three studies that examined level of functioning or symptom severity found improved housing status at discharge among patients that showed improvements in their functioning/symptoms during their hospital stay.
- These studies were not specific to the needs and experiences of Aboriginal and Torres Strait Islander peoples.

People leaving social housing

Few studies directly examined the trajectories of people through social housing.

- Overall, there appears to be an accumulation of risk leading to either a premature exit or a poorly supported transition from social housing.
- Potential risk factors include: inadequate housing for needs or delays in transfer to more suitable housing; safety concerns within the household or neighbourhood; and financial difficulties in part due to tenancies being established with debt.
- Chronic homelessness may influence tenancy sustainment via social isolation.
- Substance use and other mental health problems, including hoarding and squalor, were mentioned in a few studies but the evidence regarding these factors is equivocal.
- Few insights were available about risk factors specifc to the experiences of Aboriginal and Torres Strait Islander peoples.

Effectiveness of interventions to reduce homelessness and improve housing stability

A range of interventions were reviewed across the six pathways, with varying levels of evidence. This is summarised in Table 1 along with a recommendation for policy and/or practice.

Table 1. Summary of evidence on effectiveness of interventions for each pathway

Intervention	Strength of evidence	Recommendation
OUT-OF-HOME-CARE PATHWAY		
Extend age of leaving care	Low	• Consider trial period with an evaluation
Mentoring	Insufficient	• Further research required before recommendation can be made
Independent Living Program	Low	• Worthwhile supporting with adoption of a stepped-care approach
Transitional housing	Insufficient	• Worthwhile supporting for young people with moderate-high risk of homelessness
Youth Foyer model	Insufficient	• Not promising to pursue for OOHC young people (or Juvenile Justice (JJ) young people)
JUVENILE JUSTICE PATHWAY		
Transitional housing	Insufficient	• Research trial required for dual OOHC/JJ aging out of care
Intensive fostering	Insufficient	• Further research required before recommendation can be made
Multisystemic Therapy	Insufficient	• Research trial required
Wraparound	Insufficient	• Further research required before recommendation can be made
PRISON PATHWAY		
Offender re-entry program	Low	• Worthwhile pursuing but further research required alongside evaluations of re-entry programs that include housing
Re-entry program with housing	Insufficient	• Worthwhile supporting but further research required
Assertive community treatment	Insufficient	• Further research required before recommendation can be made
HOSPITAL PATHWAY		
Discharge planning	Low	• Not worthwhile supporting as a stand-alone option; needs to be integrated with housing support
Medical respite	Low	• Promising intervention requires confirmation of housing outcomes in the absence of a transitional housing component
MENTAL HEALTH PATHWAY		
Discharge planning	Low	• Not worthwhile supporting as a stand-alone option; needs to be integrated with housing support
Post-discharge care	Low	• Not promising to pursue given the existence of Housing and Accomodation Support Initiative (HASI)
Supported housing	Moderate	• Continue to support HASI-type model but further research needed to document access and uptake specifically for this referral pathway
SOCIAL HOUSING		
Legal/financial advice	Insufficient	• Not promising to pursue as stand-alone intervention
Tenancy support services	Not graded	• Research required to establish efficacy for planned exits from social housing (rather than prevention of premature exits)

Hoarding and squalor	Insufficient	• Promising intervention to reduce premature exits from social housing but further investigation required

Conclusion

Overall, there is a need to build the evidence base regarding the six at-risk populations that were the focus of this review. For some pathways, this would require a shift of focus from system-level efficiencies to housing and wellbeing outcomes. For example, homelessness and housing stability, while considered important fators related to recidivism and re-hospitalisation, are not typically analysed as outcomes in their own right. A broader conceptualisation of successful outcomes for people involved in these systems would consider the intersection between appropriate and stable housing, physical and mental health, family and community connections, and these other system-level outcomes. Additionally, more research from Aboriginal and Torres Strait Islander peoples' perspectives is required, to understand their needs and experiences as well as factors in over-representation, the common experience of multiple pathways over the lifespan, and compounding issues across individual, family, services and systems levels.

Greater consistency in measurement and reporting as well as improved data collection systems would also help to improve the evidence base. In particular, this needs to consider the shared populations across some pathways. For example, risk factors and interventions need to be compared for young people leaving OOHC and/or juvenile justice facilities. Having a common set of risk factor domains considered across the pathways would also help to identify those domains where interventions would be most effective. Finally, investment in more appropriately designed studies (and perhaps pooling resources across programs and agencies) would have a significant impact on the confidence with which recommendations could be made.

Background

Risk factors for homelessness are many. Studies exploring these risk factors, or antecedents, among people with an experience of homelessness have documented the high proportion of homeless people with a history of out of home care placements, custodial stays in juvenile detention or adult correctional facilities, and mental illness requiring hospitalisation. Homeless people have also been found to be over-represented among chronic users of emergency departments and commonly, they have had failed tenancies in both the private and social housing sectors. However, not all people with these histories experience homelessness. This Evidence Check aims to synthesise the knowledge about 'who' among these at-risk populations is likely to become homeless and the type of models or interventions shown to be effective in reducing this risk.

This Evidence Checkwas commissioned by the NSW Government Department of Family and Community Services (FACS). It will inform the translation of the NSW Human Services Outcomes Framework into measureable outcomes. The framework describes seven outcome domains important to the wellbeing of NSW citizens: social and community, empowerment, safety, home, education and skills, economic and health. This framework is shown in Figure 1 below.

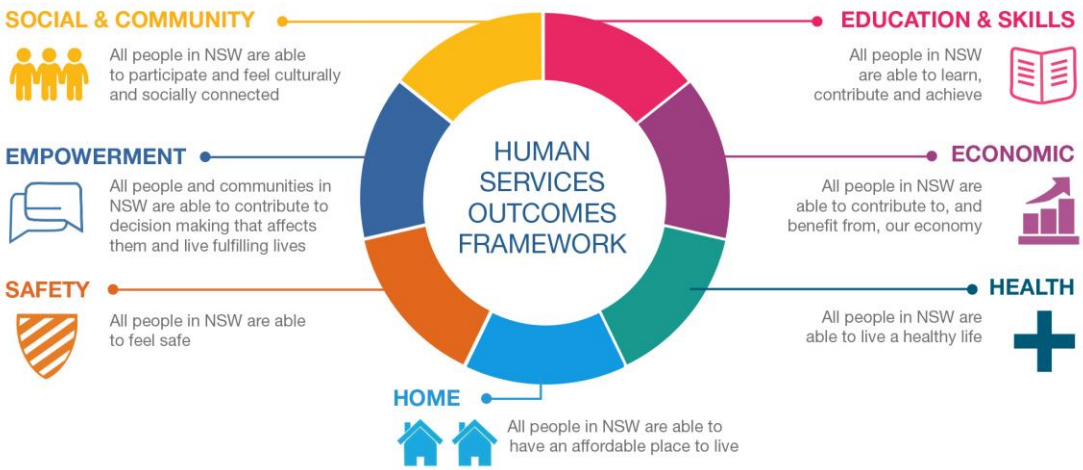

Figure 1. Human Services Outcomes Framework, NSW Government Department of Family and Community Services

The focus of the review is on six transitions or pathways when exiting government-funded services:

- Young people leaving out-of-home-care
- Young people leaving juvenile detention
- People leaving prison
- People leaving hospital
- People leaving mental health facilities
- People leaving social housing.

A transition is defined as a 'process or a period of changing from one state or condition to another.'[1] This definition underscores that there is a period of time during which risk is elevated and where support is required. This period of risk begins before leaving a program or facility and continues into the post-transition environment. Understanding the type, timing and location of risk factors informs targeted responses.

For each pathway, this review will address the following questions:

1. What is the evidence regarding the *risk factors* associated with people exiting government and government-funded services into homelessness?
2. What is the evidence regarding the *effectiveness* of interventions and models that:
    a. Prevent individuals from exiting government services into homelessness and/or
    b. Support people leaving government services into sustainable housing?

A key challenge is identifying the end points of this transition period. As will become apparent later in the report, there is limited research to identify the period of greatest risk for each pathway. We have adopted the view that risk is likely to be heightened in the first year following an exit from a government service and therefore outcomes need to be measured through this time to reasonably ascertain the effectiveness of an intervention. Other researchers have similarly cautioned between measuring housing status at the immediate point of transition from a program or service and longer-term housing stability. [2]

The present review used a transactional ecological framework to help synthesise the evidence on risk factors for homelessness. A transactional ecological framework considers risk and protective factors operating at multiple levels and along a continuum of time.[3] These risk factors could be operating at the structural-level, program-level, community-level (including family), or at the level of the individual (see Figure 2). Use of an ecological framework is also relevant when understanding Aboriginal and Torres Strait Islander peoples' experiences, where historical, social and individual factors inter-relate[4-7] and especially important given Aboriginal and Torres Strait Islander people are over-represented among homeless people and all of the pathways considered in this review.

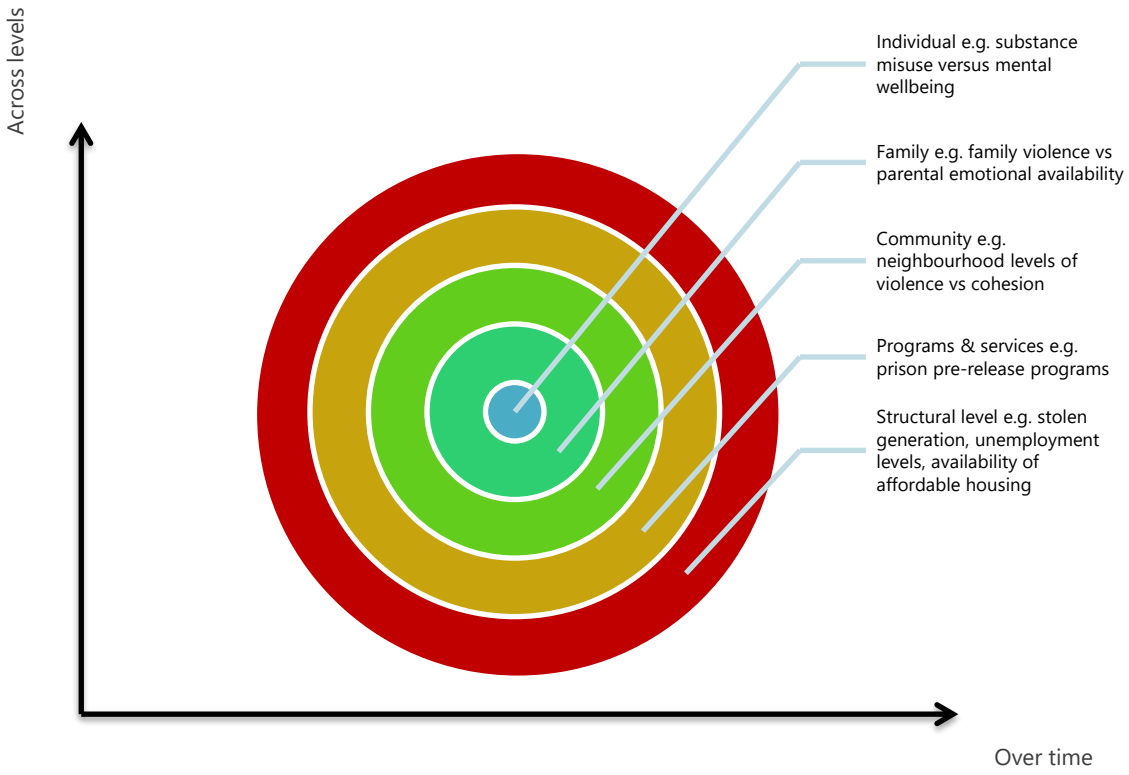

Figure 2. Transactional ecological model of risk and protective factors for homelessness

More generally, risk factors may be present in the pre-transition environment, particularly those that identify people most likely to be homeless in the initial period following transition. Some of the same risk factors may be carried forward into the post-transition environment and there may also be new risks that emerge.

An ecological model is also relevant to conceptualising the evidence regarding interventions – including the feasibility, acceptability, meaningfulness and effectiveness of interventions. For example, evidence informs the ecological level at which an intervention should have impact and the expected duration of impact, depending on whether it targets brief or enduring risk or protective factors. The term transition implies a

focus on continuity of care, meaning effective interventions are likely to require effort in both the pre- and post-transition environments. Thus, all studies exploring the effectiveness of interventions for a particular pathway were reviewed together, regardless of whether their objective was to prevent people being discharged or released into homelessness or to sustain people in housing post-exit.

Methods

This review is an integrative synthesis of the available evidence on the risk factors for homelessness and the effectiveness of interventions designed to prevent homelessness among six at-risk pathways. An integrative synthesis involves summarising the findings from the literature, including both quantitative and qualitative studies, and where the terms of the review are defined at the outset but are not necessarily fixed.[8] Given homelessness is multiply determined and the literature for some pathways was sparse, this type of review was considered appropriate because it allowed for a broader inclusion of evidence types and an iterative approach to the search for relevant evidence.

The steps in conducting this review are summarised below:

1. The search terms and parameters for study inclusion were decided in consultation with the project advisory group
2. A primary database search was conducted across 11 databases
3. The titles and abstract of papers were scanned for potential relevance; full papers were retrieved for all potentially relevant studies
4. Websites were hand-searched for relevant grey literature including program descriptions and program evaluations
5. All relevant papers and reports were read and a decision made regarding the level of evidence each provided; otherwise they were excluded
6. Additional searches were conducted to address gaps in the reviewed literature
7. All included papers and reports were assessed for quality
8. An assessment of the strength of evidence for each pathway was made based on the type and quality of evidence available and the directness and consistency of the findings.

Full details regarding each of these steps are provided in the following sections.

Search strategy: peer review literature

To capture relevant publications across the different pathways 11 bibliographic databases were searched:

- Scopus
- Pubmed
- PsycINFO, Medline [EBSCOhost]
- Social Science Database, Social Services Abstracts, Criminal Justice [ProQuest]
- Families and Society Collection, CINCH, CINCH-Health, APAIS-Health [Informit]

Each database was searched in two steps. A primary search for homelessness literature was initially undertaken using the following search terms:

> Homeless* OR "couch surf*" OR "rough sleep*" OR "crisis accommodation" OR "supported accommodation" OR "transitional housing".

This was then combined with individual pathway searches using the following terms:

a. "foster care" OR "state care" OR "out-of-home placement" OR "out-of-home care" OR "kinship care" AND
   - "aging out" OR "leaving care" OR transition*

b. "juvenile offender" OR "young offender" OR delinquent OR "juvenile supervision" OR "juvenile detention"

c. prison* OR gaol OR jail OR incarcerat* OR detention OR custod* OR remand AND
   - release OR post-release OR "leaving custody" OR re-integration

d. "hospital discharge" OR "hospital separation" OR "transfer of care" AND NOT
   - psychiatr* OR "mental illness" OR "mental disorder" OR "forensic hospital"

e. "hospital discharge" OR "hospital separation" OR "transfer of care" AND
   - psychiatr* OR "mental illness" OR "mental disorder" OR "forensic hospital"

f. "social housing" OR "community housing" OR "government housing" OR "public housing" OR "council housing" OR "Indigenous housing" AND
    - "Evict*" OR "abandon*" OR "leave property" OR "exit".

The reference list of relevant publications was also hand-searched to identify additional studies. Additionally, the Endnote libraries of the two authors were also reviewed for potentially relevant material. The full bibliographic and abstract information for all identified studies was exported into an Endnote library. Titles and abstracts were first reviewed for relevance. All potentially relevant articles were retained and read in full to determine their inclusion in the review.

As the review progressed, secondary searches were conducted to address specific gaps in the evidence for the second review question regarding effectiveness. This iterative approach to the literature search was necessary because of the limited number of studies undertaken specifically with the pathway populations that are the focus of this review. The studies identified through these secondary searches were included to provide insight into promising interventions, where there may be evidence of effectiveness in similar populations or in addressing an identified risk factor. As these were outside the original scope of the review, an exhaustive search was not undertaken. Instead, the searches were limited to a single database, Scopus, chosen for the breadth of its coverage (including health, social sciences, humanities, and economics). Six secondary searches were conducted using the following terms:

g. "foster care" OR "state care" OR "out-of-home placement" OR "out-of-home care" OR "kinship care" AND
    - "Mentor*" OR "personal advisor"
h. "youth homelessness" AND "foyer"
i. "juvenile offender" OR "young offender" OR "delinquent" OR "juvenile supervision" OR "juvenile detention" AND
    - "multisystemic therapy"
    - "wraparound"
j. "intensive fostering" OR "Multidimensional Treatment Foster Care"
k. "hospital discharge" OR "hospital separation" OR "transfer of care" AND
    - "medical respite"
l. "psychiatr*" OR "mental illness" OR "mental disorder" OR "forensic hospital" AND
    - "housing first"

These searches yielded a varying number of studies, including some that produced no results. The number of studies identified, scanned and selected for review is included as part of the total number of records identified through database searching – see Figure 1 on page 21.

Search strategy: Grey literature

Database searches were supplemented by searches of websites of a range of policy and advocacy organisations and research institutes, including those holding bibliographic collections such as:

Australian Institute of Criminology; Australian Institute of Family Studies; Australian Institute of Health and Welfare; Australian Housing and Urban Research Institute; Australian Policy Online; Bureau of Crime Statistics and Research; Campbell Collaboration; Centre for Housing Policy, York University; Council to Homeless Persons; Foyer Foundation; Australian Indigenous HealthInfonet; Homeless Link; Joseph Rowntree Foundation; #JustJustice; Lowijta Institute; National Indigenous Drug and Alcohol Committee; NSW Family and Community Services; NSW Justice Health & Forensic Mental Health Network; Pathway Healthcare for Homeless People UK; Prison Reform Trust UK; Project 10%; Public Health Association of Australia; Revolving Doors UK; The Geelong Project; The Homeless Hub; The Kings Fund; The Work Foundation; Wraparound Milwaukee.

Independent news outlets such as *The Guardian*, *Croakey*, *The Stringer* and *The Conversation* were also searched.

Eligibility criteria

Studies were of primary interest if they:

- Included participants sampled from one of the target pathways either at the point of, or the period following, exit from a government service (i.e. out-of-home care, juvenile justice, prison, psychiatric facilities, general hospital, and social housing) and
- Examined/explored the relationship between factors in the pre- and post-transition environments and housing/homelessness outcomes at the point of exit and/or within the first year post-exit.

OR

- Evaluated a program or intervention where homelessness or housing was reported either at the end-point of the intervention or at some point in the future after program completion and
- The program or intervention started either immediately prior to or immediately following the transition point for each of the target pathways. This included studies that compared outcomes of a program or intervention to another intervention or non-intervention group as well as studies that examined program elements associated with positive housing outcomes.

Given the sparse literature for some pathways, the inclusion criteria were widened to include studies that provided indirect evidence. That is, studies that identified potential risk factors or promising interventions that could be reasonably applied to one of the pathways. The distinction is made throughout the report where studies provide *direct* evidence in relation to the review questions and those that have been included as *indirect* evidence.

Additionally, studies were required to be written in English and published between 2000 and 2016. Studies published outside this date range were only included if they were considered to be key studies in the area and/or studies of direct evidence were lacking.

Study selection

Studies were first considered with regard to the appropriateness of the study design to the research question. That is, to what extent does the study design enable the review questions to be answered? This is the *level of evidence* that a study provides. Two frameworks were used to classify studies according to the level of evidence they provided because studies suitable to answering questions about risk differ from those suitable to answering questions about the effectiveness of intereventions. These were adapted from existing frameworks to incorporate both quantitative and qualitative evidence.

Studies were then assessed in terms of their *quality*. Given the breadth of evidence included in the review, a number of different tools were required to assess quality for different study designs.

These frameworks and tools are described in the following sections.

Study designs suitable to answering questions about risk factors

The first research question is concerned with aetiology, or the explanations for why some people among a population identified as at-risk become homeless while others do not. That is, are there particular factors associated with the occurrence of homelessness among each of the transition populations? In answering this question we want to identify factors that discriminate among individuals already identified as being at risk of homelessness because of their group status. For example, individuals with a history of incarceration are known to be at higher risk of becoming homeless; specifically *which* individuals leaving prison are more likely to become homeless and which individuals are most likely to achieve stable housing is the focus of the first review question.

For quantitative evidence, the most appropriate study designs were those that established a clear association between the risk factor and the outcome, *and* made a determination of causality. The types of quantitative study designs considered appropriate, in order of the level of evidence they provide from highest (level I) to lowest (level IV), are: systematic reviews, prospective cohort studies, retrospective cohort studies, and cross sectional studies or case series.[9]

Qualitative research was considered to contribute independently to the body of evidence, rather than be supplementary to the evidence provided by quantitative studies.[10] Qualitative research may be particularly relevant to understanding outcomes that are multiply determined, as in the case of homelessness. For example, studies utilising grounded theory are important in contributing to a causal risk process theory of homelessness, that is, how a particular risk factor might cause an outcome such as homelessness. Although it has been argued that a hierarchy of evidence cannot be applied to qualitative research[10], qualitative

studies can be described in similar terms to quantitative research including studies that examine experiences longitudinally to describe changes over time or explain how different outcomes might arise, and the use of comparison groups to understand differences in experiences.[11] Thus these study designs were incorporated into the NHMRC framework originally devised for quantitative studies. The resulting framework is shown in Table 2 below.

Table 2. Levels of evidence for studies examining risk factors for homelessness adapted from NHMRC

I Systematic review of prospective cohort studies or qualitative longitudinal studies
II Prospective cohort study, qualitative longitudinal studies
III Cohort and comparative studies 1. All-or-none studies where a case series of people exposed to the risk factor experience the outcome (rare situation) 2. Retrospective cohort design, retrospective (narrative) interviewing 3. Case-control study, qualitative comparison studies
IV Cross-sectional study, quantitative case series, qualitative case studies

Study designs suitable to answering questions about effectiveness

The second research question of the review is concerned with the effectiveness of an intervention. In the traditional sense, effectiveness can be defined as 'the extent to which an intervention achieves the intended result or outcome.'[12] In order to do this, it is necessary to compare groups of people who are similar on key characteristics, and where one group receives the intervention and the other group does not. The types of study designs traditionally considered appropriate, in order of the level of evidence they provide, are: systematic reviews of randomised controlled trials (RCTs), individual RCTs, comparative (non-randomised) or quasi experimental studies, and case studies with either post-test or pre-test/post-test outcomes.[9]

In the homelessness sector, interventions comprise activities or practices, programs, whole-of-agency or integrated services, policies, and community- or system-level responses.[13] These interventions are quite different to the clinical treatments of medicine or psychology for which levels of evidence were first determined. Given this, the present review adapted the hierarchy of evidence suggested by the Canadian Homelessness Research Network (CHRN).[13] This is shown below in Table 3. The highest level of evidence is deemed 'best practice' and comprises level 1 evidence from systematic reviews of qualitative and quantitative research and level 2 evidence from RCTs, quasi-experimental (e.g. case-control) and qualitative comparison studies. Level 3 evidence, based on realist reviews and case studies or program evaluations (including those that use a pre-post design), is deemed 'promising practice' while level 4 evidence, comprising program descriptions and opinion pieces, is considered 'emerging practice'.

Table 3. Levels of evidence for homelessness interventions adapted from CHRN

Best practice	Level 1 • Systematic reviews involving qualitative and/or quantitative synthesis methodology
	Level 2 • Randomised controlled trials (RCTs) • Quasi-experimental studies or qualitative comparison studies
Promising practice	Level 3 • Realist reviews of complex interventions • Case studies or program evaluations lacking a comparison group
Emerging practice	Level 4 • Program descriptions or reports with limited data or evidence • Opinions, ideas, policies, editorials

Assessment of study quality

Few studies were excluded because of poor quality; however, quality was considered an important aspect of appraising the included studies, given the primary objective of the review to inform policy decisions. To guide decisions regarding quality a number of critical appraisal tools were used, as threats to study quality are dependent on the study design. These tools are not objective in so far as they do not determine a threshold above which a study is deemed acceptable. Rather, they list the criteria that should be considered in an appraisal. In this sense the tools act as a guide for an overall subjective assessment of study quality. Given this was a rapid review, studies were appraised once by a single author. At various times during the review process the two authors discussed their decisions regarding study inclusion and study quality, however constraints on time meant it was not possible for all papers to be reviewed by both authors and consensus reached regarding their inclusion. It is also important to note that an assessment of study quality is entirely dependent on the communication of the study methods. Where methodological details were lacking, this necessarily meant that methodological rigour could not be determined and thus a rating of lower quality was given. For example, if a research report designed for a lay audience was descriptive and brief, then it was often difficult to find the information required to make a suitable appraisal of study quality.

There are several tools that have been developed for assessing the quality of a range of quantitative study designs. These have varying degrees of overlap in terms of the criteria considered essential for high-quality research. For the purpose of the present review, the NHMRC guidelines were adopted where appropriate [9, 14]. Although the criteria differed across study designs (e.g. RCTs, prospective cohort, case-control), generally they included a consideration of the:

- Appropriateness of the sampling frame, including the potential impact of attrition or participant refusal on the findings reported
- Choice of outcome measures or their predictors and the timing of these measurements
- Type of analysis undertaken.

There is a lack of agreement among qualitative researchers about whether assessment of quality is valid or appropriate for qualitative studies.[15] For the present review, however, it was necessary to make judgements about our confidence in the available evidence for each of the review questions. Unlike the appraisal tools for quantitative evidence, appraisal tools for qualitative research tend to assume the same criteria are applicable regardless of study type.[10] One of the consequences of this is that the process of assessing quality for qualitative research relies on greater subjectivity than the appraisal of quantitative research. These issues notwithstanding, we adapted a framework developed by Walsh and Downe[16] which included the following considerations:

- Method/design apparent and consistent with research intent
- Data collection strategy apparent and appropriate
- Sample and sampling method appropriate
- Analytic approach appropriate

- Context described and taken account of in interpretation
- Clear audit trail given (i.e. data used to support interpretation and clear exposition of how interpretation led to conclusions)
- Evidence of reflexivity – the researcher's critical reflection on their interpretations of data.

Program evaluations were assessed using a set of criteria developed for the purpose of the present review. These criteria were derived from the literature on 'best practice' evaluation.[2, 17]

- Stated intended impact – clearly defined program goals/objectives and an identified theory of change
- Choice of measures and their relation to program goals/objectives, baseline measurement and distinction between program outputs and outcomes
- Consideration of the contextual factors in which the program operates and integration with other services and systems
- Identification of the target population and assessment of program reach, representativeness of study sample to target population
- Clear articulation of the program or intervention and analysis of outcomes in relation to specific program components.

Finally, grey literature was assessed using the AACODS Checklist which stands for: Authority of the author, Accuracy of reporting of study details, Coverage of the findings, Objectivity in the reporting of findings, clearly stated Date, and Significance or meaningfulness of the findings.[18]

An overall rating was made for each study (low, moderate or high) based on a subjective assessment of the extent to which each met their respective study criteria. Where the quality of evidence was equivocal, studies conducted in Australia, New Zealand and Canada were prioritised over studies conducted in the US or the UK.

Appraising the strength of evidence for each transitional pathway

The frameworks and tools described above are targeted at the level of the individual study. In order to synthesise the findings from these different studies we needed a way of assessing the contribution that each study made to the overall state of knowledge for each pathway and the degree of confidence in that knowledge. Combining evidence from studies of differing designs and quality is challenging[19] and while many reviews restrict themselves to a single study type or related study types, this was not considered feasible for the present review given the objective was to inform policy decisions. An iterative approach was undertaken in which all studies were considered if they were of moderate or higher quality and were at least level 3/III evidence or above. A number of frameworks were reviewed[9, 20, 21] and the following four criteria were used to grade the body of evidence for each pathway:

- Overall evidence base i.e. number of studies and their levels of evidence and quality (high, moderate, low)
- Directness of evidence (direct, indirect)
- Consistency of findings across studies (consistent, inconsistent, unknown)
- Applicability to the Australian context (applicable, applicable with caveats, not applicable).

These criteria were applied to the evidence for each risk factor domain or intervention type. An overall strength of evidence grade was then applied. This grading can be interpreted as the level of confidence in the available evidence and had four levels:

- High – very confident: the body of evidence has few deficiencies; findings are stable and unlikely to change with publication of new research
- Moderate – moderately confident: Some deficiencies in body of evidence; findings likely to be stable but there are some doubts
- Low – limited confidence: major or numerous deficiencies in body of evidence; further research is needed
- Insufficient – no confidence: there is a lack of available evidence or evidence has unacceptable deficiencies

With regard to the effectiveness of interventions, recommendations were made based on a consideration of: the strength of evidence available; whether interventions were mapped to the identified risk factors for that pathway; and our expertise in service delivery for the different pathway populations. We have attempted to do this in a thoughtful and transparent manner; however, the subjectivity inherent in the study selection,

study appraisal, and evidence grading means it is possible that other researchers may come to different conclulsions. This is especially pertinent given the serious gaps in the evidence for some pathways.

A note about Aboriginal 'ways of knowing'

Research among Aboriginal and Torres Strait Islander peoples, over-represented in all of the pathways explored in this review, is bounded by guidelines of the National Health and Medical Research Council as well as the Australian Institute for Aboriginal and Torres Strait Islander studies. These require research to be developed and controlled by Aboriginal and Torres Strait Islander community members and organisations to ensure the survival and protection of Aboriginal and Torres Strait Islander cultures, with reciprocity between researchers and communities alike and bound by a spirit of integrity – features of quality evidence.

Further, Aboriginal and Torres Strait Islander peoples respect multiple forms of knowledge as evidence. Knowing, being and doing being integrally connected – akin to working across a research-practice-education translational pipeline. Rather than focussing on the individual as the unit of measurement, quality Aboriginal and Torres Strait Islander-led research takes an intergenerational and life-course perspective, accounts for social, historical and economic determinants, and being colonised peoples considers success as movement toward community-level empowerment.

Defining 'success' in programs accessed by Aboriginal and Torres Strait Islander peoples but not designed with their needs and worldviews risks irrelevant interpretation. Where evidence has not been designed by or with Aboriginal and Torres Strait Islander peoples, it should be considered as potentially not meeting the required ethical guidelines, and not being adequately representative of Aboriginal and Torres Strait Islander peoples' experiences and needs. Utmost caution must therefore be used when applying research findings from general populations to, for example, the planning of policies, frameworks and interventions for Aboriginal and Torres Strait Islander peoples. Sensitive, Aboriginal and Torres Strait Islander-led research is best to inform these, and further investment in such research is urgently required.

Framework development, decision making and resourcing of interventions that include Aboriginal and Torres Strait Islander peoples, which is likely given their over-representation in the pathways, is recommended to best occur in partnership with Aboriginal and Torres Strait Islander peak bodies and Community-Controlled Health Organisations. A robust body of evidence is now growing about the cost-effectiveness and accessibility of Aboriginal and Torres Strait Islander Community-Controlled Health Organisations, which should be taken into account even in deliberations about homelessness given these organisations address the social determinants of health and have a lead role in conducting ethical, culturally-relevant research.

Results

The combined results of the search strategy for the two research questions and six pathways is summarised in the PRISMA diagram below. The diagram shows the total number of studies and reports that were identified, screened and reviewed for inclusion in this report. By the end of the process, 145 studies across the six transitional pathways were identified as relevant and included as evidence in the review.

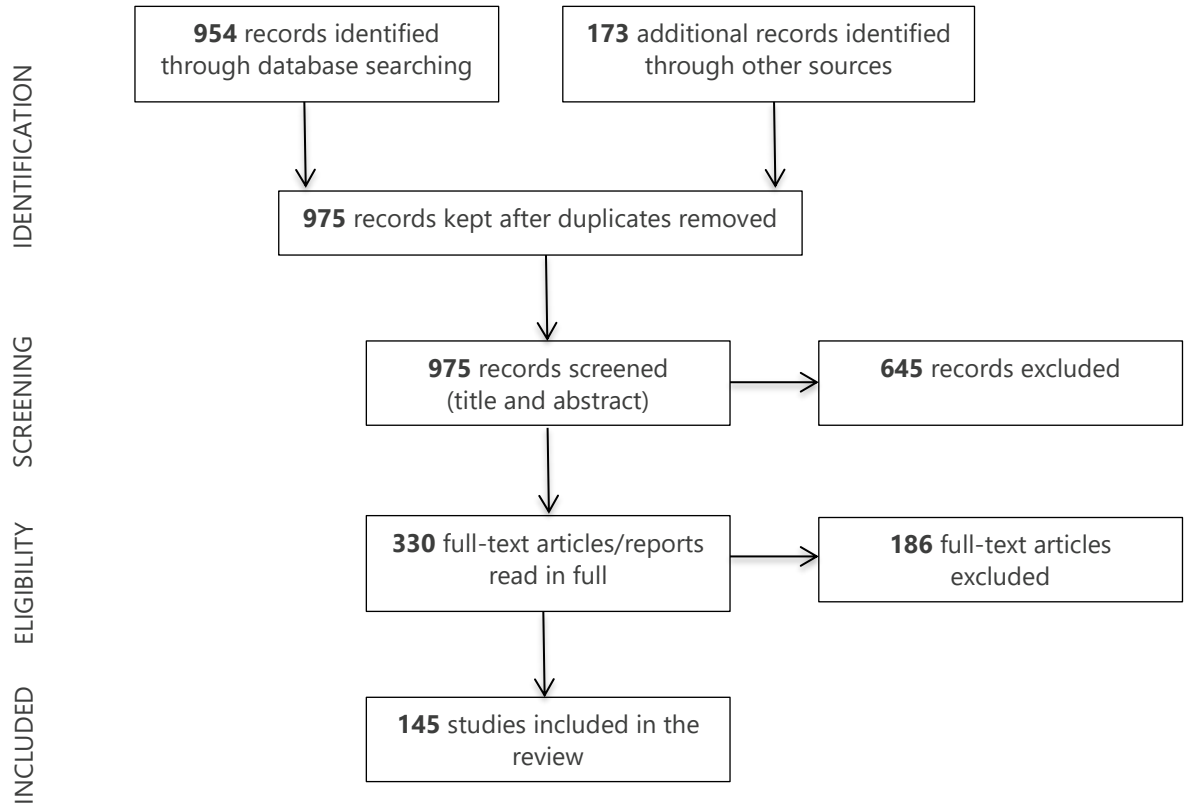

Figure 3: PRISMA diagram showing the number of studies identified, screened and reviewed for inclusion in the Evidence Check rapid review

The subset of studies included as evidence for the individual pathways is noted at the beginning of each pathway section. The level of evidence and quality of each included study is also noted in a table at the beginning of each pathway section. PRISMA diagrams for individual pathways are included in Appendix 2.

Appraisal of the body of evidence regarding risk factors for homelessness

Table 4 shows the overall gradings given to the available evidence on risk factors for homelessness. Three pathways were graded as having insufficient evidence, meaning there is a lack of available evidence to make a meaningful appraisal for these pathways. The remaining three pathways were graded as low because further research is needed to improve confidence in the available evidence.

Table 4: Grading of Risk Factors for each pathway

Insufficent	Low	Moderate	High
• Juvenile Justice pathway • Hospital pathway • Mental health pathway	• OOHC pathway • Social housing pathway • Prison pathway		

OOHC pathway

Three quantitative[22-24] and two qualitative[25, 26] studies were included in the appraisal of evidence for this pathway. Although all five studies provided direct evidence on risk factors for homelessness or housing instability, few findings were consistent across studies. This is likely due to differences in measurement of risk factors. Some consistency in findings was evident for two domains: justice system invovlement and OOHC program charateristics (see Table 5 for details). There was also a consistent finding regarding the overall presence of trauma but a lack of specificity regarding the type and severity of trauma experienced. Three of the studies were conducted in the US hence there is some caution regarding the applicability of the findings to the Australian context for some domains. The overall grading of evidence for the OOHC pathway was low.

Table 5. Grading of evidence for homelessness risk factors for young people leaving out-of-home care (n=5 studies)

	Evidence base	Directness	Consistency	Applicability
Demographic characteristics	n=2 studies Level II-high Level III-mod	Direct	Inconsistent	Not applicable
Education and skills	n=3 studies Level II-high Level III-mod	Direct	Inconsistent	Applicable with some caveats
Trauma and victimisation	n=4 studies Level II-high Level III-mod	Direct	Consistent	Applicable
Behavioural and emotional problems	n=3 studies Level II-high Level III-mod/high	Direct	Inconsistent	Applicable
Social and community	n=2 studies Level II-high Level III-high	Direct	Inconsistent	Applicable
Justice system involvement	n=3 studies Level II-high Level III-mod	Direct	Consistent	Applicable with some caveats
Program characteristics	n=5 studies Level II-high Level III-mod/high	Direct	Consistent	Applicable with some caveats
Structural factors	n=1 study Level II-high	Direct	n/a	Not applicable

Juvenile justice pathway

A single study was included in the grading of evidence for this pathway.[27] This study provided indirect evidence for a single domain (see Table 6 for details) however it was conducted with an Australian sample and therefore applicable to the Australian context. Overall the evidence for the juvenile justice pathway was deemed to be insufficient.

Table 6. Grading of evidence for homelessness risk factors for young people leaving juvenile justice (n=1 study)

	Evidence base	Directness	Consistency	Applicability
Demographic characteristics	n=1 study Level III-mod	Indirect	n/a	Applicable
Education and skills	n/a			
Trauma and victimisation	n/a			
Behavioural and emotional problems	n/a			
Social and community	n/a			
Justice system involvement	n/a			
Program characteristics	n/a			
Structural factors	n/a			

Prison pathway

Four studies were included in the grading of evidence for the prison pathway. All studies were level II evidence and assessed as being of moderate quality. Few risk factors were measured consistently across studies and the findings were therefore difficult to synthesise. Overall the strength of evidence for this pathway was low.

Table 7. Grading of evidence for homelessness risk factors for people leaving prison (n=4 studies)

	Evidence base	Directness	Consistency	Applicability
Demographic characteristics	n=2 studies Level II-mod	Direct	Inconsistent	Applicable with some caveats
Education and skills	n=1 study Level II-mod	Direct	n/a	Not applicable
Trauma and victimisation	n/a			
Physical and mental health	n=2 studies Level II-mod	Direct	Inconsistent	Applicable
Offending behaviour	n=3 studies Level II-mod	Direct	Inconsistent	Applicable with some caveats
Social and community	n=1study Level II-mod	Direct	n/a	Applicable
Program characteristics	n=2 studies Level II-mod	Direct	Inconsistent	Applicable with some caveats
Structural factors	n=1 study Level II-mod	Direct	n/a	Not applicable

Hospital pathway

No studies were found that measured or explored risk of homelessness following discharge from hospital (excluding discharge from mental health facilities). Hence the strength of evidence for this transitional pathway was deemed to be insufficient.

Table 8. Grading of evidence for homelessness risk factors for people leaving hospital (n=0)

	Evidence base	Directness	Consistency	Applicability
Demographic characteristics	n/a			
Education and skills	n/a			
Trauma and victimisation	n/a			
Physical and mental health	n/a			
Offending behaviour	n/a			
Social and community	n/a			
Program characteristics	n/a			
Structural factors	n/a			

Mental health pathway

A single study[28] met the criteria for inclusion in the grading of evidence for people leaving mental health facilities. This study used a US sample and thus may not be directly applicable to the Australian context. The study examined risk factors across three domains (see Table 9 for details). The overall grading for this pathway was insufficent.

Table 9. Grading of evidence for homelessness risk factors for people leaving mental health facilities (n=1 study)

	Evidence base	Directness	Consistency	Applicability
Demographic characteristics	n=1 study Level II-mod	Direct	n/a	Applicable with some caveats
Education and skills	n/a			
Trauma and victimisation	n/a			
Physical and mental health	n=1 study Level II-mod	Direct	n/a	Applicable
Offending behaviour	n/a			
Social and community	n/a			
Program characteristics	n=1 study Level II-mod	Direct	n/a	Applicable with some caveats
Structural factors	n/a			

Social housing pathway

Three studies were included as eligible for grading in this pathway. Two studies were from the UK, one providing level II evidence and the other providing level III evidence, and one study was Australian and considered level III evidence. All three studies were deemed to be of moderate quality. Only two risk factor domains were assessed by both studies. Findings were inconsistent for the demographic characteristics but somewhat consistent for the program charactieristics (see Table 10 for details). The findings are applicable in the Australian setting with few caveats. The overall grading of evidence for this pathway was determined to be low.

Table 10. Grading of evidence for homelessness risk factors for people leaving social housing (n=3 studies)

	Evidence base	Directness	Consistency	Applicability
Demographic characteristics	n=2 studies Level II-mod Level III-mod	Indirect	Inconsistent	Applicable
Education and skills	n/a			
Trauma and victimisation	n/a			
Physical and mental health	n=1 study Level II-mod	Indirect	n/a	Applicable
Offending behaviour	n/a			
Social and community	n=1 study Level II-mod	Indirect	n/a	Applicable
Program characteristics	n=2 studies Level II-mod Level III-mod	Indirect	Consistent	Applicable
Structual factors	n/a			

Appraisal of the strength of evidence regarding the effectiveness of interventions for homelessness

OOHC pathway

There is low-strength evidence that extending the age of leaving care would improve housing outcomes for young people leaving OOHC however whether this policy would impact those most at risk of homelessness within this population is unknown. Likewise, the strength of evidence for independent living programs, based on four studies including two review papers, was deemed low due to methodological issues with the studies reviewed.

There is no direct evidence that mentoring reduces risk of homelessness among young people leaving OOHC. Nor is there any evidence of sufficient level or quality to grade for the effectiveness of transitional housing. With no direct evidence and a lack of methodological rigour of the studies reviewed, the evidence for Foyer models was also insufficient.

Table 11. Grading of evidence for the effectiveness of interventions addressing homelessness for young people leaving out-of-home care n=12

	Evidence base	Directness	Consistency	Applicability	Grade/Strength
Extend age of emancipation	n=1 study Level 2-mod n=1 study Level 3-high	Direct Indirect	n/a n/a	Applicable with some caveats Applicable	Low confidence
Mentoring	n=4 studies Level 1-high Level 2-high Level 3-mod/high	Indirect	Consistent	Applicable with some caveats	Insufficient to grade
Indpendent living program	n=4 studies Level 1-high Level 3-mod	Direct	Consistent	Applicable with some caveats	Low confidence
Transitional housing	n=0	n/a	n/a	n/a	Insufficient to grade
Foyer model	n=2 studies Level 3-mod/high	Indirect	Inconsistent	Applicable with some caveats	Insufficient to grade

Juvenile justice pathway

Only two studies were found that provided direct evidence of the effectiveness of interventions addressing homelessness for young people leaving juvenile justice. One of these was an Australian example of a Foyer model[29] and the other was a US study of a transitional housing model involving therapeutic case management.[30] The remaining studies reviewed provided indirect evidence regarding three potentially relevant/useful interventions for this pathway population. These were intensive fostering, Multisystemic Therapy and Wraparound. The strength of evidence for all of these was considered insufficient, predominantly because there were few studies that measured housing or homelessness as an outcome and thus effectiveness in this regard cannot be determined.

Table 12. Grading of evidence for the effectiveness of interventions addressing homelessness for young people leaving juvenile justice n=11

	Evidence base	Directness	Consistency	Applicability	Grade/Strength
Transitional housing / Foyer model	n=2 studies Level 2-mod Level 3-mod	Direct	Inconsistent	Applicable with some caveats	Insufficient to grade
Intensive fostering	n=4 studies Level 2-high Level 3-mod Level 4-mod	Indirect	n/a	Not applicable	Insufficient to grade
Multisystemic Therapy	n=3 studies Level 1-high Level 3-mod	Indirect	Inconsistent	Applicable with some caveats	Insufficient to grade
Wraparound	n=2 studies Level 2-high Level 3-mod	Indirect	n/a	Applicable with some caveats	Insufficient to grade

Prison pathway

Seven studies reported housing outcomes for interventions designed to assist people leaving prison and were included in the appraisal of evidence. Re-entry programs designed to link offenders with appropriate accommodation and other supports were most common but the focus was on recidivism and differences in measurement of housing outcomes and follow-up period meant the overall evidence was graded as low. The strength of evidence for re-entry programs with housing and for Assertive Community Treatment (ACT) was deemed insufficient as only a single study was able to be graded for each of these interventions.

Table 13. Grading of evidence for homelessness risk factors for people leaving prison n=7

	Evidence base	Directness	Consistency	Applicability	Grade/Strength
Offender re-entry progam	n=5 studies Level 2-mod Level 3-mod	Direct	Consistent	Applicable	Low
Re-entry program with housing	n=1 study Level 2-mod/high	Direct	n/a	Applicable	Insufficient
Assertive community treatment (ACT)	n=1 study Level 3-mod	Direct	n/a	Applicable	Insufficient

Hospital pathway

Six studies were deemed of sufficient level and quality to be graded for the hospital pathway.

There was insufficient evidence for the effectiveness of discharge planning from ED and low-level evidence of its effectiveness from hospital wards. While there is intuitive appeal for these models, they are difficult to evaluate and heavily constrained by systemic factors including the availability of appropriate accommodation in the vicinity of the hospital. More promising as an intervention are medical respite models although only one study of sufficient level and quality was found that directly examined housing outcomes. Further research is required to establish the effectiveness of this intervention.

Table 14. Grading of evidence for homelessness risk factors for people leaving hospital n=6

	Evidence base	Directness	Consistency	Applicability	Grade/Strength
Discharge planning – ED	n=1 study Level 3-mod	Indirect	n/a	Applicable	Insufficient to grade
Discharge planning – hospital ward	n=2 studies Level 2-mod Level 3-mod	Direct	n/a	Applicable	Low confidence
Medical respite	n=1 study Level 2-high	Direct	n/a	Applicable with some caveats	Low confidence
	n=2 studies Level 2-mod	Indirect	n/a	Applicable	

Mental health pathway

Six studies were included in the appraisal of evidence for the mental health pathway. This included two studies on pre-discharge support conducted by the same research group and one study on post-discharge support. Both of these are promising interventions but require further research to confirm their findings. Three studies provided indirect evidence on the effectiveness of supported housing models. Direct evidence is required on access to these models specifically for people being discharged from psychiatric facilities (as compared to all persons with a mental illness regardless of hospital admission).

Table 15. Grading of evidence for homelessness risk factors for people leaving mental health facilities n=6

	Evidence base	Directness	Consistency	Applicability	Grade/Strength
Pre-discharge support	n=2 studies Level 2-mod Level 3-high	Direct	n/a	Applicable	Low confidence
Post-discharge support	n=1 study Level 2-mod	Direct	n/a	Applicable	Low confidence
Supported housing	n=3 studies Level 1-mod Level 3-mod	Indirect	Consistent	Applicable	Moderate confidence

Social housing pathway

Three studies provided indirect evidence of interventions (legal support, financial counselling) to reduce premature exits from social housing; however, given they are single studies the evidence base was considered insufficient to grade.

Table 16. Grading of evidence for homelessness risk factors for people leaving social housing n=3

	Evidence base	Directness	Consistency	Applicability	Grade/Strength
Legal support	n=1 study Level 2-high	Indirect	n/a	Applicable with some caveats	Insufficient
Financial counselling	n=1 study Level 2-mod	Indirect	n/a	Applicable	Insufficient
Hoarding and squalor intervention	n=1 study Level 3-mod	Indirect	n/a	Applicable	Insufficient

Findings

Young people leaving out-of-home care

Key evidence points regarding risk factors for homelessness:

- Only a handful of studies were found that directly examined risk factors for homelessness among OOHC leavers.
- The most consistently reported risk factor was placement instability. An increasing number of placements were associated with greater likelihood of homelessness or housing instability post-care in all eight studies reviewed, whether qualitative or quantitative methodology was employed, and when other markers of instability were controlled for.
- There were other indicators of instability associated with homelessness including two studies that found a significant association with a history of running away and homelessness prior to leaving care, delinquency and criminal history, and frequent school moves or leaving school early. Three studies observed poor formal and informal support networks.
- At a program level, one study found a lack of a transition plan was associated with unstable housing trajectories and this was related to the instability of the OOHC experience.
- A range of health problems were found to be significantly associated with homelessness but these were not consistently measured across studies. This included victimisation (two studies), physical injury (one study) and mental health problems (three studies).
- Demographic variables were not consistently identified as being predictive of housing or homelessness outcomes – sex, cultural identity and being a young parent were each identified by a single study only.
- No specific research exists on understanding homelessness risk factors for Aboriginal and Torres Strait Islander children, young people and their families in relation to OOHC.

Key evidence points regarding effectiveness of interventions for homelessness:

- Three targets for intervention were identified from the literature: extending the age of leaving care; mentoring and independent living skills training to protect against the accelerated transition into adulthood; and supported housing in the post-transition environment.
- One study examined the impact of extending the age of leaving care and found young people had a smoother transition if they extended their care placement, however this was a small pilot and was biased toward young people with more stable attachments (who likely have the lowest risk of housing instability post-care). Supporting evidence suggests a policy change in Australia could be cost effective but that relational needs and stability appear to be important determinants of who would stay in care and benefit from this policy change.
- Despite placement instability being found as a consistent risk factor for homelessness post-care, no studies were identified in the primary search that evaluated policies or programs to address this.
- Overall there was little direct evidence of the effectiveness of mentoring in reducing the risk of homelessness post-care. The supporting evidence suggests mentoring relationships need to be stable and relatively enduring, beginning well before the transition out of care and continuing after other services have dropped off. Although there was some suggestion that natural mentoring may be more appropriate than formal mentoring programs for OOHC young people, no studies have directly compared the efficacy of these two approaches.
- Similarly, there was little direct evidence of the effectiveness of independent living programs (ILPs) in reducing homelessness for OOHC young people, predominantly due to the poor design of studies rather than a lack of studies per se. Additionally, ILPs sometimes included housing but none of the studies examined the relative contribution of these two components to the outcomes observed. Thus there is a lack of conceptual clarity regarding

ILPs with and without housing, and transitional housing which, in the Australian context, typically includes case management focused on developing independent living skills.

- The effectiveness of youth Foyer models, a particular type of transitional housing, has not been demonstrated. Supporting evidence suggests a discrepancy between the target population of Foyer models and the reality that many young people requiring housing support present with high and complex needs.
- There is some Aboriginal and Torres Strait Islander-led research in the health space that could inform research in the OOHC space. Topics that have been researched in, for example, the health and wellbeing context may be relevant to OOHC. These include kinship caring, family-based interventions, intergenerational and extended family roles, strengthening cultural identity, holistic care to address complexity, and addressing underlying disadvantage.

Risk factors for homelessness among young people leaving out of home care

A total of eight studies (six peer reviewed articles and two non-peer reviewed reports) were found that directly examined the risk factors for homelessness among young people leaving OOHC. These ranged from NMHRC Level II to Level IV evidence with two studies rated as being of high quality, three rated as moderate and three as low. This is shown in Table 17 below. Some consistency in findings was evident for two risk factors – number of care placements and child maltreatment – however further research is needed as the severity of these experiences may be more important than simply any exposure. Findings regarding emotional and behavioural problems were inconsistent although, again, severity of exposure may be most important. Overall, the strength of evidence regarding risk factors for homelessness among young people leaving OOHC was rated as low.

Among the eight studies, three studies were Australian while the five remaining studies were from the United States. A ninth study from the UK was not included because there was insufficient detail regarding participant recruitment, selection of measures and data analysis, making it difficult to interpret the findings.[31] OOHC includes residential care, group homes and home-based care (e.g. kinship care, foster care). The US literature predominantly uses the term foster care to refer to these different types of care.

Table 17. NHMRC Level and quality of evidence of included studies for the out-of-home care pathway: risk factors

	Low quality	Moderate quality	High quality
Level I evidence – systematic review of prospective studies			
Level II evidence – prospective design	Shpiegel & Simmel 2016[34]		Dworsky et al. 2013[36]
Level III evidence – retrospective cohort (temporal analysis) or case-control design		Shah et al. 2016[38] Fowler et al. 2009[41] Crane et al. 2014[43]	Natalier & Johnson 2012[26]
Level IV evidence – cross-sectional or case series design	Rielly 2003[39] McDowall 2009[40]		

Studies measuring homelessness or housing outcomes at a particular point in time post-care

Five studies examined associations between one or more risk factors and living circumstances at a particular point in time post-care.[22, 24, 32-34] Four of these measured homelessness, defined variously as 'nowhere to sleep' through to insecure housing. One study measured both housing instability and homelessness service use, and another study measured housing transitions. Three studies examined multiple risk factors together in a single analysis and thus provide an indication of their relative importance or contribution to the overall risk of homelessness after leaving care.[22, 24, 34] The remaining two studies conducted a separate (univariate) analysis for each risk factor and thus the findings are less reliable.[33, 35] A summary of the risk factors

measured in these studies is shown over the page in Table 18; the factors in bold text are those that were found to be significantly associated with homelessness or housing instability.

Regardless of study design or quality, all five studies found that a greater number of care placements was associated with an increased likelihood of homelessness or housing instability post-care. However, there may be a threshold at which risk of homelessness is elevated as the strength of the association was negligible in the two studies that used a continuous measure of number of placements.[22, 34] In contrast, the Shah et al.[24] study found an almost two-fold increase in risk of homelessness/housing instability for young people who had four or more group placements. This suggests it is not only the number of placements but perhaps also the type of placement that is important. Multiple group placements may reflect greater instability and/or placement difficulties.

A number of inconsistent findings were noted:

- Running away during placement was found to be significantly associated with homelessness in the Dworskey et al.[22] study but not in the Shah et al.[24] study, which also measured homelessness during care. This latter measure was found to be associated with an almost two-fold increase in risk of housing instability or homelessness service use post-care.
- Sexual abuse was not found to be associated with homelessness post-care in the three studies that measured this; however other types of maltreatment were associated with a slight increase in risk. Again, severity may be an important part of construing risk as one study found health presentation due to injury rather than physical abuse was associated with an almost two-fold increase in risk.[24]
- Delinquent behaviours were found by one study to be significantly associated with homelessness although the effect size was small.[22] A second study measured behavioural problems and found no significant association with housing instability or homeless service use.[24]
- Finally, three studies reported inconsistent findings for male gender, sexual orientation and African-American identity.[22, 24, 34]

Table 18. Summary of risk factors examined in relation to homelessness or housing instability for the out-of-home care pathway: point-in-time estimates

	Dworksy et al 2013[36] Level II – High (n=624)	Shpiegel & Simmel 2016[37] Level II – Low (n=355)	Shah et al 2016[38] Level III – Moderate (n=1202)	Reilly 2003[39] Level IV – Low (n=100)	McDowall 2008[40] Level IV – Low (n=164)
Demographic characteristics	**Male (OR 1.5)** African-American ethnicity Heterosexual orientation Currently employed	Male Non-white race Hispanic ethnicity **Sexual minority (OR 2.4)**	Male **African-American ethnicity (OR 1.9)** **Young parent (OR 2.2)**		
Education and skills	Did not complete high school Completed high school but no college Completed at least 1 year college	No. school transitions	**Higher school performance (OR 0.6)** **4+ school transitions past 3yrs (OR 1.7)** 2-3 school transitions past 3yrs Unexplained absences past year Early school leaver		
Behavioural problems	**No. delinquent behaviours (OR 1.1)**		Behavioural problems		
Emotional problems	**Post-traumatic stress or depression symptoms (OR 1.4)** Alcohol or other drug use disorder		Mental health treatment need		
Trauma and victimisation	Sexual abuse prior to placement **Physical abuse prior to placement (OR 1.4)**	Sexual abuse – ever **Other child maltreatment – ever (OR 1.1)**	History of sexual abuse History of physical abuse History of neglect **Health presentation: injury (OR 1.8)** Health presentation: poisoning		
Social and community	Very close to parent/grandparent Social support			**Smaller social support network (r=-0.23)**	
Justice system involvement	Incarceration since last interview		**4+ convictions (OR 1.6)** Juvenile rehabilitation past 2yrs		

Program characteristics	**Greater no. care placements (OR 1.2)** **Ran away from placement (OR 1.7)** Group care Kinship care	**No. care placements (OR 1.1)** No. independent living services received Group care Kinship care	**Disrupted adoption (OR 3.4)** **4+ group placements (OR 1.8)** 2+ placements (any) Ran away from placement **Homelessness in-care (OR 1.9)** **Placed with relative (OR 0.7)** Last placement = group No. of respite stays	**Greater no. care placements (v=0.33)**	**Greater no. care placements (r=0.46)**
System-level	State of residence				
OUTCOME	First episode homelessness: nowhere to sleep or poor housing security	Self-report homeless OR stayed in hotel, street/improvised dwelling, shelter	Housing instability or homeless service use	Homeless at any time since leaving care	No. housing transitions

NB Bolded risk factors are those that were found to be significant

Each study is discussed in detail below.

The highest level of evidence found were two prospective studies of young people aging out of care in the US. The first of these was a large study known as the Midwest Evaluation of the Adult Functioning of Former Foster Youth.[36, Level II – High]. Risk of homelessness was associated with being male (OR=1.5), a history of running away (OR=1.7) and increasing number of care placements (OR=1.2), history of physical abuse (OR=1.4), mental disorder symptomatology (OR=1.4), and a higher delinquency score (OR=1.1). Baseline surveys were conducted with 732 young people at age 17 when they were still in care with subsequent surveys conducted at 19, 21, 23, and 26 years. Homelessness was measured with a single item at each follow-up time point and time to first homelessness was estimated using a discrete time hazard model (with n=624 participants retained in the analysis). The prevalence of homelessness post-care was 36% with a 2.6-fold increase in risk of homelessness between the ages of 19 and 21 and a 3.5 fold increase between the ages of 21 and 23. Factors examined but not found to be associated with homelessness included race/ethnicity, group care versus kinship care, history of sexual abuse, substance use disorder, incarcerated since last interview, closeness to parent or grandparent, employment, education, sexual orientation and social support.

The second prospective study analysed the two-year outcomes from the Multisite Evaluation of Foster Youth Programs (MEFYP), which compared the effectiveness of four independent learning programs for 405 OOHC leavers.[37 Level II-low] A stepwise procedure was used to identify the most predictive set of risk factors. Similar to the previous study, increased victimisation within the young person's family of origin (OR=1.1) and multiple care placements (OR=1.1) were significantly associated with homelessness. In contrast to the previous study, this study also found a significant association for sexual orientation (OR = 2.4). Other factors included in the model but not found to be associated with homelessness were race, ethnicity, sexual abuse, number of school transitions and number of independent living services.

One retrospective cohort study was found. The US study followed up 1202 young people who aged out of care in 2010–2012. The majority of the sample had left foster care by age 18 with approximately 10% leaving when aged 19-21 years.[38; level III-moderate] Analysis was conducted on linked state-level data across child welfare, housing, public assistance, education, criminal justice and health systems in Washington State. Just under one-third (27%) of the sample had experienced homelessness in the 12-month follow-up period. A multivariate analysis found the following significant predictors of homelessness post-care: homelessness in the year prior to OOHC exit (OR=1.9) or previous three years (OR=1.4), four or more school moves in the previous three years (OR=1.7), having had a disrupted adoption (OR=3.4), four or more congregate care placements (OR=1.8), four or more convictions in previous two years (OR=1.6), being a young parent (OR=2.2), African-American identity (OR=1.9), and injury (OR=1.8). Having a higher GPA (OR=0.6) or ever being placed with a relative (OR=0.7) was associated with a reduced risk of homelessness. Other risk factors included in the model but which were non-significant included: mental health treatment need or involvement in juvenile rehabilitation in the two years prior to exit, two or more placements of any kind, and behavioural problems during placement.

Two cross-sectional studies, both of low quality, were found. Both studies relied on univariate statistical analyses (i.e. single variable), examined a smaller number of risk factors, and had smaller samples compared to the three previous studies discussed. Although of lower quality both studies had findings consistent with the studies employing more sophisticated methods. In the first study, young Americans aged 18-25 years (n=100) were recruited from the total State population of young people that had left care in the previous three years (n=239; 44% response rate).[39; level IV-low] A cross-sectional survey measured housing stability and a range of other factors (demographic, psychosocial wellbeing, substance use and health) in the period since leaving care. The study found a greater number of foster care placements (v=0.33) and smaller social networks (*r*=-0.23) were associated with experiences of homelessness post-care.

The second cross-sectional study reported on the outcomes of 67 young Australians who had transitioned out of care and which found a moderate correlation (*r*=.46) between the number of care placements and the number of housing transitions experienced post-care. The data is from an annual national survey of Australian OOHC young people undertaken by CREATE Foundation, a national peak body for children in care in Australia[40; level IV-low] The post-care sample included n=57 females (mean age 21yrs) and n=20 males (mean age 20yrs). Participants were asked about experiences of homelessness and housing stability in the first year after leaving their final care placement. The prevalence of homelessness in the period since leaving care was 34%. Among those who had been homeless, approximately one-third were homeless for 1-6 months, 10% experienced a homeless episode of up to one year and one-third experienced an episode lasting more than one year. Approximately one-third of the young people who experienced homelessness

did not access any homelessness support. More than one-third of the post-care sample (39%) had up to five different housing transitions and 19% had more than five housing transitions since leaving care.

Studies that examined the clustering of risk factors over time

In addition to the five studies just described, three studies were found that used a pathways framework to consider the relationship among risk factors over time. The first of these was a quantitative study from the US that retrospectively surveyed 265 adolescents (aged 19–23 years) three years after leaving foster care.[41; level III-moderate] General growth mixture modelling was used to identify four different pathways or trajectories that young people took after leaving care. These were:

1. Continuously stable pathway (n=153) – the majority of participants in this group were classified as stably housed at each three-month follow-up.
2. Increasingly stable pathway (n=31) – less than 15% of this group were stably housed in the first six months following care but this gradually increased to 68% over the next 18 months.
3. Decreasingly stable pathway (n=29) – approximately three-quarters of participants in this group were stably housed immediately following care and this rate remained relatively stable for the first six months before gradually declining to about 25% toward the end of the two-year follow-up period.
4. Continuously unstable pathway (n=52) – only a small proportion of participants in this group were stably housed once they left care (<10%) with only a slight increase to 14% by the 21st month.

Compared to group 1 ('continuously stable'), the 'increasingly stable' group differed only on a couple of variables. They were more likely to have experienced a high level of sexual and physical victimisation (OR=3.5) and less likely to have finished high school (OR=0.3). In terms of placement characteristics, the only difference found was a lower likelihood of their last placement type being a congregate care setting (b=-0.6). Given the low rate of housing stability of this group in the immediate period following care, it is possible they were able to access other services (e.g. youth refuges) which assisted them to achieve more stable housing in the longer term.

Pathways 3 and 4 were more similar to each other and distinct from the two 'stable' groups. Compared to group 1, the 'decreasingly stable' and 'continuously unstable' groups had a higher rate of emotional (OR=3.6 and OR=4.6, respectively) and behavioural (OR=2.5 and OR=3.3) problems (the latter defined in terms of substance use and conduct problems). Both groups also had elevated rates of physical and sexual victimisation (OR=5.2 for 'decreasingly stable' and OR 6.7 for 'continuously unstable') and criminal arrests/convictions (OR=2.4 for both groups) and lower rates of high school completion (OR=0.3 for 'decreasingly stable' and OR=0.5 for 'continuously unstable'). These two groups also experienced a greater number of foster care placements (b=0.8 for 'decreasingly stable' and b=0.6 for 'continuously unstable'). Additionally, relative to the 'continuously stable' group, those in the 'decreasingly stable' group entered care at a younger age (no parameter estimate reported) while those in the 'continuously unstable' group were less likely to be living independently at their last placement (b=-0.7).

Although the overall response rate for this study was low (34% of the total OOHC leaving population of n=867), there was no difference between participants and non-participants with regard to either demographic or OOHC characteristics. Additionally, the random selection of participants and the frequency of follow-up interviews (three monthly intervals over two years) enabled reliable measurement of housing transitions among this population.

Qualitative evidence also supports the idea of stable and unstable housing trajectories following care. An analysis of post-care trajectories among 77 young people in Victoria and Western Australia[42; level III-high] identified two pathways: 'smooth' and 'volatile'. Participants were recruited from community support services within five years of the young person leaving care when participants were aged 18-26 years. Only a minority of participants (n=18) were classified as experiencing a smooth transition; this pathway were characterised by more positive OOHC placements involving secure attachments, they typically left care at a later age, and felt more involved in their own transition plans. The authors argue that this base enabled these young people to more successfully pursue employment and training opportunities which in turn contributed to a more stable housing pathway. In contrast, the majority of care leavers (n=59) experienced a volatile pathway. This pathway was characterised by instability in care placements, they typically left care at a younger age (commonly precipitated by a crisis) and it was less common for a transition plan to be in place. Consequently the type of housing they accessed was typically congregate arrangements where personal agency and safety were compromised. This pathway was also characterised by impoverished social networks and limited engagement with the formal support system.

Using the conceptualisation of smooth and volatile pathways identified in this study, another Australian study explored the transitional experiences of young people leaving care in Queensland and Victoria.[43; level III-moderate] Individual interviews were conducted with 27 young people, 17 of whom also participated in a second inteview approximately four months after the first. Similar to previous research, the stability of housing experienced post-care reflected the stability of placements in-care. Moreover, child maltreatment that occurred in-care contributed to placement breakdown, which led in turn to homelessness. Thus homelessness experiences occurred both in-care (e.g. being kicked out, running away) as well as post-care. This study also found that attachment difficulties arising from trauma and placement instability influenced the relationships the participants subsequently developed with others in the post-care environment, including violent relationships with intimate partners.

A summary of the risk factors identified by these three pathways studies is shown below.

Table 19. Summary of risk factors examined in relation to homelessness or housing stability for out-of-home care leavers among studies using a pathways approach

Pathway	Fowler et al. 2009[41] Level III – moderate (n=264) Latent class analysis	Natalier & Johnson 2012[42] Level III – high (n=77) Qualitative analysis	Crane et al. 2014[43] Level III – moderate (n=17) Qualitative analysis
'Smooth' Continuously stable Increasingly stable		More secure attachments Older age at exit from care More involved in transition planning ⇩ (leading to improved employment & training)	
'Volatile' Decreasingly stable Continuously unstable	Greater no. care placements (*b*=0.6–0.8) Younger age at entry to care Lower likelihood of independent living at last placement (*b*=-0.7) Higher rate of emotional problems (OR 3.6–4.6) Higher rate of behavioural problems (OR 2.5–3.3) Elevated rates of physical and sexual assaults (OR 5.2–6.7) Higher rate of arrests/convictions (OR 2.4) Early school leaver (OR 0.3–0.5)	Instability in care placements Younger age at exit from care Lack of transition plan Poor social networks Poor engagement with service system	Instability in care placements In-care child maltreatment ⇩ (resulting in placement breakdown and involvement in violent relationships post-care)

Effectiveness of interventions to prevent homelessness and sustain housing among young people leaving out-of-home care

Much of the discussion in the literature on young people leaving care is concerned with the contracted and accelerated transition into adulthood and the need to provide supports that ameliorate the risk associated with this. From this literature, three primary targets for intervention can be identified. The first of these is to extend the age of leaving care so that it more closely resembles the transition period experienced by young people in the general population. The second is transition planning, including training and support that enable the young person to develop the skills necessary for the accelerated transition. Within this area, two types of supports are reviewed – mentoring and independent living programs (ILP). The third target is to provide housing-specific support in the post-transitional period. This includes priority access to social housing, transitional or supported housing programs, or floating case-management support.

There are additional targets for interventions that can be identified from the review of risk factors above but for which no publications were identified through the primary search strategy of the review. For example, interventions to improve placement stability would appear to be important. Such interventions might particularly focus on OOHC young people with emotional and behavioural problems, those dually involved in the juvenile justice system, or those that experience trauma in-care. The clustering of risk factors suggests more intensive and longer interventions may be required for young people experiencing placement instability. For example, mentoring and independent living programs may require the involvement of specialist staff while supported or transitional housing programs may need to adopt a therapeutic model of case management. Likewise, being a young parent appears to increase the likelihood of homelessness, consistent with studies on family homelessness more generally. This is another group of OOHC leavers that might benefit from ILP or transitional housing programs being adapted to meet their specific needs (i.e. inclusive of parenting support). As will become apparent, there is limited examination of the effectiveness of interventions for different groups of young people leaving care.

A total of 29 papers were reviewed as evidence on the effectiveness of interventions to reduce homelessness among young people leaving OOHC. Much of this is indirect evidence with only nine studies providing direct evidence in relation to the review question. The level of evidence each provides, as well as the quality of these studies, is summarised in Table 20 below. For example, three of the studies are level 1 evidence and of high quality and thus the findings reported in these studies are most reliable. Most studies however were classified as level 3 or 4 evidence.

Table 20. Level and quality of evidence of included studies for the out-of-home care pathway: interventions

	Low quality	Moderate quality	High quality
Level 1 evidence – systematic review (qual &/or quant synthesis)			Everson-Hock et al. 2011[57] Montgomery et al. 2006[59] Thompson et al. 2016[47] Levin et al. 2015[73]
Level 2 evidence – RCTs, quasi-experimental studies, qual comparison studies	Purtell & Mendes 2016[48]	Munro et al 2012[44] Zimmerman et al. 2002[54]	Grossman & Rhodes 2002[53] Munson & McMillen 2006[56]
Level 3 evidence – realist reviews of complex interventions, case studies or program evaluations lacking a comparison group	Brown & Wilderson 2010[67] Senteio et al. 2009[68] Edwards 2010[69] Mendes 2011[50] McDowall 2008/2009[63] Spencer et al. 2010[55]	Grace et al. 2011[74] Kroner & Mares 2011[60] West et al. 2013[61] Osterling & Hines 2006[52] Crane et al. 2014[62]	Deloitte Access Economics 2016[45] Clayden & Stein 2005[51]
Level 4 evidence – program descriptions, opinions	Steen & MacKenzie 2016[75] Bone & Inverarity 2016[71]	Beauchamp & Hollywood 2014[76] Galvin et al. 2010[70] Meade & Mendes 2014[49]	Eastman et al. in press[46] Hussein & Cameron 2014[72]

Policy intervention: age of transition

Although there were several commentaries in the literature regarding the age of transition for OOHC young people, only one study was found that directly examined the impact of this policy on housing outcomes. The mixed methods study evaluated a UK government pilot program to allow young people to stay in their care placements beyond the age of 18.[44; level 2-moderate] Overall, the findings indicated a smoother transition for young people who extended their care placement compared to those who left at age 18.

The pilot program was implemented by different agencies in different geographic locations. Four sites were included in the evaluation and differences in program implementation were documented and taken into consideration in the interpretation of findings. In-depth interviews with 21 young people who 'stayed put' and 11 young people who 'moved on' were undertaken by peer interviewers with a lived experience of OOHC. The sample was drawn from a population of 36 foster carers. Thirty-one carers agreed to extend placements for the young people in their care and 23 young people accepted the offer to 'stay put'. Poor-quality relationship with foster carers was the most common reason for young people not wanting to stay. Other reasons included the desire for independence or wanting to be with their birth family.

Twenty-two transitions to independent living were observed during the two-year study period (nine participants from the 'stayed put' group and 13 from the 'moved on' group). Participants in the 'stayed put' group (n=6; 67%) more commonly experienced direct transition pathways, where they moved directly from foster care into independent living. In contrast, participants in the 'moved on' group (n=6; 46%) typically experienced complex transition pathways characterised by housing instability. A small number of participants experienced transitional placement pathways where they lived in supported housing before moving into independent housing. This pathway was undertaken by four participants who were unable to remain in their foster care placement and forced to transition earlier than they would otherwise have liked. Support networks were also observed to contract after a young person made the transition to independent living; however, this was not specifically examined with respect to the three pathways. This was a small pilot (comprising six of 11 locales where the program was trialled) and was constrained by the two-year evaluation period which limited the number of transitions to independent living made by participants in the 'stay put' group. It was also compromised by the program eligibility criteria requiring the young people to have an established relationship with their foster carers and therefore precluded those with unstable

placements and who were considered at significant risk of homelessness post-care. Nonetheless, it is the only evaluation of an intervention targeting the age of transition and suggests that, even among more stably placed care leavers, extended periods of support are related to improvements in housing outcomes post-care.

Indirect evidence comes from an Australian study commissioned by the Victorian Government, which undertook economic modelling of extending the leaving age to 21 years.[45; level 3-high] The model assumed 25% of OOHC leavers would opt to extend their care placement. Based on this assumption, it was estimated that over a 40-year period there would be a return of $1.84 for every dollar invested in continuing the placement. Costs included in the model were housing support, education and employment, justice involvement, hospitalisations and substance dependency. Other outcomes such as improved mental health and social connectedness could not be costed due to a lack of data; however, it could be expected that savings would be even greater if these costs were also considered. Regarding who among OOHC young people might opt for extended care, an analysis of administrative records in the US where extended stays have been enacted found several characteristics associated with higher rates of remaining in care. These included: young people who had first entered OOHC when they were aged five years or less; those who had experienced six or more placements; those who had a longer length of time in care; and those who had entered care because of substantiated emotional abuse.[46; level 4-high] In contrast, young people residing in congregate settings at age 17 were less likely to opt for extended care. These findings suggest that relational needs and stability may be important in determining who would be likely to remain under an extended care policy.

Transition planning: mentoring

Mentoring has been defined as a 'positive relationship with a caring, non-parental adult' and is seen as normative for young people in the general population.[47] *Natural* mentors are embedded within the young person's existing social network and can include both kin and non-kin mentors. In contrast, *formal* mentoring programs pair a young person with either an adult from the community or with a peer who has already transitioned from care. While there is a large literature on mentoring among young people in the general population, studies on the effectiveness of similar programs specifically for young people transitioning from OOHC are limited. Critically, for the present review, only one study was found that reported on the effectiveness of mentoring programs for OOHC leavers specifically in relation to housing stability or homelessness. A secondary search for studies of mentoring programs for young people transitioning from OOHC was therefore conducted (limited to a search of Google and Scopus databases). This search yielded 33 publications, 18 of which were excluded based on title and abstract (primarily because they involved younger adolescents who were not in the process of transitioning from OOHC). Of the 15 remaining publications that were assessed for inclusion, eight were included as supporting evidence.

The first study is a review of natural mentoring for OOHC young people.[47; level 1-high] The review found an overall positive relationship between natural mentoring and psychosocial outcomes, (however, only one study reported effect sizes). The review included 38 studies published between 2006 and 2015, 12 of which were qualitative or mixed methods studies, 13 were quantitative studies, and the remainder were conceptual/theoretical papers. A number of the studies (both quantitative and qualitative) found duration and consistency of the mentoring relationship to be important, with some studies also suggesting that age of entry into foster care and associated permanency of care placements facilitated this. There were several limitations identified by the review, including the broad range of definitions of 'natural mentoring' employed by the studies and the cross-sectional nature of most study designs. The authors of the paper suggest that natural mentoring may be a better fit for OOHC young people compared to formal mentoring programs because a young person's history of child maltreatment and placement instability may make attachment to an unfamiliar adult challenging. However, no studies were found that directly compared these two forms of mentoring relationships.

The remaining four studies were evaluations of *formal* mentoring programs. An evaluation of an Australian mentoring program 'Stand By Me' has recently been completed and found housing outcomes were similar for both the mentoring group and those receiving usual leaving care services.[48; level 2-low, 49] The difference between the two groups was the pathway they took to obtaining their housing. The comparison group were housed via support from youth homelessness services which they accessed post-care. For program participants, the mentoring relationship supported young people to access housing during their transition from OOHC. No details were provided regarding the selection of the comparison group or how they compared to the Stand by Me participants (who were selectively enrolled in the program because they were considered to be at high risk for homelessness and other negative outcomes). Additionally, the sample was

small (9/12 participants in the pilot program participated in the evaluation) so caution is required in generalising the findings to other at-risk young people or to the general population of OOHC leavers. Particular attributes of the program thought to have contributed to the outcomes included:

- Establishment of the mentoring relationship in the 6–12 months prior to leaving care which helped to smooth the transition from care to independent living
- Maintenance of the mentoring relationship up to age 21 and retention of the same personal advisor regardless of changes in location (e.g. a move out of area to access housing or employment) which helped to stabilise the young person during a time when other services typically dropped away.

A second Australian evaluation was found of a regional Victorian leaving care service that included mentoring as one component in a larger suite of services. Housing outcomes were reported for the study participants as a whole and there was no comparison of housing outcomes among the young people that participated in the mentoring component (n=11) with those who did not (n=7).[50; level 3-low] Likewise, housing outcomes were not explicitly examined in a UK study of mentoring programs implemented across several geographic locations.[51; level 3-high] Both studies however provide insight into the challenges and successes of formal mentoring with OOHC young people. Interviews with the young mentees and service staff in the Australian study described improvements in self-confidence and social skills, greater maturity, and having a source of advice and positive interpersonal interaction with someone who is 'not a worker'.[50] Mentoring relationships were less successful when contacts with mentors were infrequent, mentors left the program unexpectedly or the young people had significant mental health problems. The UK experience was similar in that mentees valued the informal nature of the mentoring relationship compared to the formal relationships of child welfare workers.[51] This study also found mentoring programs varied substantially in their focus on 'task-oriented' versus 'befriending' roles of mentors. A number of challenges were also identified, including the time-limited nature of the programs and maintaining boundaries within the mentoring relationships.

Finally, a US program embedded independent living skills training within the mentoring relationship.[52; level 3-moderate] Although housing outcomes were not directly measured, a survey of n=52 young people found that 44% had the skills to 'find a place to live' as a result of the mentoring relationship. The authors recommended that the mentoring relationship be established well before leaving care as a strong relationship appeared to be necessary before independent living skills could be addressed by the mentors.

Overall, there is little direct evidence of the effectiveness of mentoring in reducing homelessness among OOHC leavers and sparse evidence that it is effective in improving outcomes more generally. There is great diversity of mentoring programs, making it difficult to compare outcomes across studies, however mentoring appears to be most effective: when the relationship is established early (i.e. before transition) and maintained for at least one year [53; level 2-high]; when contact between the mentee and mentor is consistent; and there are shared experiences or interests between the mentee and mentor. The evidence reviewed above hints that mentoring may be most effective for OOHC leavers experiencing relational instability, a potential risk factor for homelessness in this population. Other research has suggested mentoring may reduce involvement in substance use and delinquent behaviour [54; level 2-moderate], both of which may be considered potential risk factors for homelessness. However, there has been some concern that mentoring relationships may be more difficult for young people with behavioural and emotional difficulties.[55; level 3-low] This may be a greater concern for formal mentoring programs where it has been found to impact on the duration of the mentoring relationship[53]; in contrast, a study of natural mentoring found that child maltreatment and mental disorder were not associated with the characteristics of the mentoring relationship. [56; level 2-high] Several researchers have highlighted the need to understand which type of mentoring program is best suited to specific groups of OOHC young people.[47]

Transition planning: independent living programs and leaving care services

Transitional planning and support encompasses a broad array of programs and services that focus on living skills development. Stable housing is just one of the outcomes targeted as part of these programs. Two systematic review papers, one cohort study (without comparison) and one program evaluation were found. Overall there is little existing evidence of the effectiveness of independent living programs (ILPs) for young people leaving care. This is mainly due to poorly designed studies.

A systematic review of these services concluded the available evidence on the effectiveness of ILPs was unreliable.[57; level 1-high] The review included evaluations of ILPs and leaving care services delivered or commenced while a young person was still in care, and which included a comparison group of OOHC young people receiving usual care. Seven cohort studies were included in the review, five of which were retrospective and two were prospective. Six studies were conducted in the US and one in the UK and all but two were published before 2000. These more recent studies both used a retrospective study design. All of the studies used samples of young people in foster care arrangements; none of the studies included young people in residential care or group homes. A major criticism noted by the authors was the lack of detail provided to enable classification of interventions as targeted (i.e. adjusted for OOHC young people with high and complex needs) or universal (i.e. all young people). Thus, the review was unable to comment on program components related to successful outcomes. Six studies (including the UK study) examined housing situations either at the time of leaving care or following leaving care. In all cases, the intervention group had better housing outcomes than the comparison group. Findings were mixed however, with regard to homelessness. Two studies showed no difference between the intervention and comparison groups and two studies found a positive effect for the intervention group.

A second systematic review of ILPs for young people leaving care (published by the Campbell Collaboration) found no randomised or quasi-randomised evaluations to include in the review.[58] Subsequently, the authors published an expanded review with slightly less stringent inclusion criteria. [58; level 1-high] Studies were included if they met all other criteria except for random assignment i.e. they assessed the effectiveness of ILPs against usual care, no intervention, or another intervention; but excluded those with a special needs focus (e.g. those with disabilities, teenage parents, or young offenders) to improve the generalisability of findings. Eight studies were identified and included in the review, six of which examined housing outcomes and all of which reported positive outcomes for those who participated in ILPs. One study found that a higher proportion of ILP participants (n=44) were living independently at follow-up, compared with non-participants (n=32) (68% vs 41%), although there was no difference in their experiences of homelessness post-care (52% vs 53%). Another study found that 36% of the ILP participants (n=44) were living on their own post-program compared with the non-ILP group (n=46). Program participants (n=81) were found, in another study, to have a lower prevalence of homelessness than the comparison group (n=133) but this difference was non-significant (23% vs 16%). The review also included a study that found ILP participants (n=30) moved significantly less than those who did not participate (n=29). However, as with the previous review paper, the authors note that the reliability of the positive claims across the different studies is undermined by the use of poor methodologies, small sample sizes, and variation in ILP design.

There have been a number of studies published since these systematic reviews were completed however the methodological problems have persisted and most studies used samples from the broader homeless youth population and do not report housing outcomes separately for young people with OOHC histories. Notwithstanding these limitations, two additional studies are reviewed here as they provide particular evidence regarding the feasibility and meaningfulness of ILPs for OOHC leavers.

The first study is an evaluation of a housing-based ILP from the US.[59; level 3-moderate] The majority of program participants (n=314; 86%) entered via a supervised setting (predominantly OOHC placement – 66% – with the remainder from juvenile justice, psychiatric or substance use treatment settings). Among this group, a little over half exited the program into independent living (54%) while 19% went to live with others (e.g. family, other relative, or family friend) and 12% returned to a supervised setting (e.g. detention facility, inpatient health facility, group home or therapeutic foster care) at the end of the program. There was no follow-up period post-discharge so it is not known whether these outcomes were sustained in the longer term. The authors of this study also contend the program was effective in young people with an identified mental disorder (65%) based on the following: 1) all were able to be accommodated within the program with additional supports (although these are not described); and 2) none exited the program into a psychiatric facility. The authors make the distinction between ILPs that include a residential component and

those provided in addition to existing accommodation. They suggest *housing-based* ILP may not be warranted for young people without mental health problems. Without a non-residential ILP comparison group, however, it is difficult to know the relative contribution of the ILP and housing components to the outcomes observed. Similarly, none of the previously reviewed studies make this distinction between housing and non-housing program elements and housing outcomes.

The second study provides Australian evidence on the effectiveness of a pilot ILP in improving housing stability among 112 OOHC leavers in regional NSW.[60; level 3-moderate] Two-thirds of program participants were either homeless or at imminent risk of homelessness when they were referred to the program.The proportion of this group that was stably housed at completion of the program was not reported; however, a total of 39 housing placements were established and 43 young people sustained stable housing throughout the year-long study period. Of critical interest is that the program was found to improve access to private rental opportunities via two mechanisms. First, the involvement of a caseworker reduced the perceived risk by real estate agents in leasing a property to a young person, and second, young people were able to accrue 20 identification points towards the 120 points required for a lease by completing a tenancy course called 'Reality Rental'. Another area of success of the program was the acceptability of the program for Indigenous OOHC leavers. This was thought to be due to the strengths-based approach adopted by the program as well as the embedding of Aboriginal youth workers in a 'mainstream' service which meant that Aboriginal young people didn't feel singled out. These successes were achieved in the context of ongoing structural risks, including the lack of affordable housing options available in the region and the lower income of young people making them less attractive than other community housing tenants (because rent is determined as a proportion of income). At a systems level, the program had difficulty linking young people into residential substance use treatment because of a lack of available treatment places. Additionally, young people were commonly referred to the program within weeks of their due date for leaving care. This limited the time available to establish stable housing for the young person and as a result, they typically presented to the service in crisis. These two risk factors – the need for residential treatment and short time frame for referral – could be addressed as part of transition planning and could ostensibly fit within the remit of the child protection system.

In general, the evidence suggests effective transition planning should occur early (e.g. at 15 years), involve the young person in the planning process, and take into consideration the age, gender and maturity of the young person.[62-64] Links to support services being established prior to leaving care or the continuation of existing supports into the post-care environment would appear to be important. This was raised by young people themselves in a qualitative study of OOHC leavers who had experienced a period of homelessness after leaving care.[62] The young people suggested the following would have been helpful:

- being linked into post-care services prior to leaving care
- continuity of supports from pre- to post-care, including assertive follow-up
- information and advice available both before and after leaving care
- links to mental health services to support them through the transition phase

Future research needs to explore the effectiveness of transition planning for young people with differing risk profiles (i.e. stable versus unstable care experiences; behavioural and emotional problems; connection to family and other supports) and consider both housing and relational stability as intertwined outcomes. Moreover, given the commentary on the inconsistent and partial implementation of transition planning among young people leaving care [62-66], it may be prudent to examine the effectiveness of a continuum of leaving care programs that are mapped to the relative risk of housing and relational instability for different groups of young people. This might include mentoring programs where informal independent living skills development is embedded as part of the mentoring relationship, a structured course-type program that young people attend prior to leaving care and linked to floating case management support post-care, through to transitional housing models that include an ILP component.

Housing support: transitional or supported housing models

Transitional or supported housing models typically provide either subsidised housing or housing vouchers/stipends alongside case management (which itself may target independent living skills). Two studies were found that directly examined housing outcomes of OOHC young people accessing transitional support services, both of which were from the US. [67, 68] Both studies relied on program administrative data with housing outcomes measured either during the program or at exit, and minimal statistical analysis was undertaken. Four Australian papers were also found, one of which provided level 3 evidence while the remaining three were program descriptions and thus level 4 evidence. These articles describe three different models of housing support for OOHC leavers: a 'lead tenant' model, therapeutic residential model and

floating case management. Of the six studies providing direct evidence, only two were of moderate and high quality. Both of these were classified as level 4 evidence; therefore the overall strength of evidence in this area was insufficient. Finally, a secondary search for research regarding youth Foyer models was undertaken. The evidence for this particular model is described at the end of this section.

The first study compared the housing outcomes for young people with OOHC histories accessing two transitional housing programs – one specifically for OOHC leavers and one for homeless young people.[61; level 3-low] An examination of program administrative data found small differences between the two groups on housing status at exit; however, no statistical analysis was undertaken and no follow-up was employed. Consequently, the study is unable to confirm whether providing transitional housing at the time of leaving care is more beneficial than support provided as part of the general youth homelessness service system. The OOHC transitional program targeted OOHC young people who were referred before leaving care as part of their transition planning. The general transitional program targeted young people who were either currently homeless or at serious risk of becoming homeless; clients of this program with a history of OOHC formed the comparison group. Both programs provided housing in scattered-site units as well as life skills training, education and employment services and healthcare services (including mental health and substance use problems). The housing outcomes of n=145 direct-OOHC pathway clients and n=146 homeless-OOHC pathway clients were compared. At program exit, a slightly higher proportion of the comparison group had run away or was staying at a shelter (11%) relative to the direct-OOHC pathway group. Additionally, fewer participants in the comparison group were in private residence (68% vs 85%). Length of stay was not reported; however, both groups had similar proportions that completed the residential program. Unexpectedly, those in the comparison group had a lower proportion of involuntary discharge.

The second paper suffers from similar methodological concerns and analysed administrative data from the Transition Resource Action Centre's (TRAC) transitional housing program.[62; level 3-low] The study found statistically significant improvement in housing status over a one-year period; however, given the very small sample size and the lack of a follow-up period (all assessments appeared to be conducted while the young person was still in the program), the findings may be unreliable. The goal of TRAC is to provide stepped support for current or former OOHC clients to transition to independent living. Participants in the program must be under age24 and can stay in the residential program for a maximum of two years. TRAC operates three levels of housing support services. Level one focuses on intake, assessment, and stabilisation, with four young people sharing an apartment with on-site supervision from a resident advisor for up to three months. When they are ready, participants move on to level two, which is also shared living but with off-site (rather than on-site) supervision; this phase lasts for up to six months. At level three, participants are ready to move into their own apartment, with minimal off-site supervision and they begin to pay rent. Case managers completed the Self Sufficiency matrix for each client within four weeks of entry to the program and then again every June and December that the young person remained in the program. The Self Sufficiency matrix is an assessment and outcome measurement tool used by TRAC as a means of monitoring program efficacy. The study included n=24 records where two assessments had been completed at least one year apart. Pearson chi-square tests were used to examine changes in homelessness, housing stability, employment, income, education, life skills, family relationships, and community involvement. Compared to baseline, at review there were: less participants who were homeless or threatened with eviction (37.5% vs 4%); a greater proportion in transitional, temporary, or sub-standard housing (29.2% vs 54.2%); a similar proportion in safe, subsidised housing (8% at both time points); and a small proportion of participants that had moved into non-subsidised housing (0% vs 8.3%).

Australian research on supported housing models for OOHC young people proved difficult to locate. A magazine article was found that described the outcomes of a leaving care program for young people with a disability in NSW.[63; level 3-low] The model itself was not described; however, it appeared to involve floating case management support to ensure young people with a disability did not exit OOHC into homelessness. Data on the effectiveness of the model was collected via a self-complete survey (n=61) and interviews (n=15) with young people but there was no comparison group or follow-up period and no statistical testing of the survey data was undertaken. Homelessness since leaving care was reported by a small number of survey participants (n=5; 8%) while all of the interview participants were classified as being stably housed. A number of factors were identified as contributing to these positive outcomes including: the adoption of a two-year planning and transition period; involvement of the young people and their carers in the planning process; inter-governmental involvement (community services, ageing & disability, and housing); and a re-positioning of support from a child protection to a disability framework.

Two program descriptions of 'lead tenant' models were found. One of these programs focused on young people living in a regional area of Victoria and described supported housing coupled with living skills development.[64; level 4-moderate] St Luke's Anglicare 'Leave Care' program is based on a lead tenant model but where a live-in carer acts as the lead tenant. The live-in carer is employed by St Luke's to reside with three young people in a property managed by St Luke's and receives ongoing training and support. When young people are ready, they can move out of the live-in carer house into an independent unit (also managed by St Lukes) which allows them to test their readiness to live independently. The second program description was of a 'lead tenant' model in Melbourne and provided a case study of a young person being supported by the program.[65; level 4-low] Unfortunately no details about the program were provided and aside from the case description, the effectiveness of the model with regard to housing and other outcomes was not discussed.

The final Australian paper described a therapeutic residential model for homeless young people with a background of child maltreatment.[66; level 4-high] The model had a clearly articulated theory of change linked to program activities and expected outcomes however no evaluation studies of this model were found.

A secondary search was conducted for studies evaluating Foyer models, a type of transitional housing with embedded links to education and training. A search in Scopus yielded one peer reviewed paper.Four non-peer reviewed reports and a review paper were also located via a website search.[1] Three of the studies were retained for review. The review paper assessed the quality of evidence related to Foyer models and their applicability to the Australian context.[67; level 1-high] Fifteen studies were located (only one of which was peer-reviewed). The claims made by individual studies regarding the effectiveness of the Foyer model were found to be largely unsubstantiated. The authors concluded that existing research on the Foyer model was methodologically flawed and "was mostly unable to report key program mechanisms" because of a lack of documentation regarding service practices. With this criticism in mind, two Australian studies are discussed as they highlight the potential mismatch between the intended target population of Foyer models and the level of need among young Australians seeking housing support.

The first Australian study used qualitative methodology to explore experiences of 28 ex-residents of a Foyer-type model in Melbourne and demonstrated favourable outcomes for some participants.[68; level 3-moderate] Almost all of the participants (n=24; 86%) were assessed as being in stable housing at follow-up. Among this group, around two-thirds (n=14) had experienced stable trajectories since leaving the program while others experienced less stable trajectories that were impacted by significant mental health issues (n=10). Two required psychiatric hospitalisation while in the program and two others subsequently accessed more intensive support after being terminated from the program. The positive outcomes of these young people could be attributed (at least partly) to the additional psychiatric and intensive support they received. The remaining participants (n=4) were living in short-term (unstable) housing at follow-up and had ongoing emotional and behavioural problems. Overall, the program appeared to be most effective for young people with low needs and was less successful for those with serious mental health concerns and relationship difficulties.

Another Australian study considered the financial sustainability of Foyer models in Australia by comparing income and expenditure of five models in the UK.[69; level 4-low] The study lacks sufficient methodological detail to draw independent conclusions; however, the authors caution that Australian Foyer models may not be financially viable in the longer term. Future program evaluations would need to include an economic evaluation to more reliably assess this finding. The study also reported qualitative evidence that many UK Foyer models were working with medium-high needs young people despite the program rationale to fund and support young people with lesser needs. Along with the findings reported by Grace and colleagues[68], this indicates a need to modify and appropriately resource Foyer models in Australia if they are to be effective for OOHC care leavers with high/complex needs. Otherwise, alternative supported housing options are required for this group.

An alternative policy option to the provision of transitional housing is to give OOHC leavers priority access to social housing and for this to happen early in the transition planning process. This was a recommendation put forward by the young people involved in an Australian study on homelessness among care leavers.[70; level 3-moderate] A policy paper published by Uniting Care noted that a similar strategy was in place in Western Australia, where young people in OOHC are able to register on the priority housing needs register from the age of 15.[71; level 4-moderate]

[1] This included the websites of the Foyer Foundation in the UK and Australia; however, these did not contain any published outputs of program effectiveness.

Young people leaving juvenile justice

Key evidence points:

- Overall the quality and level of evidence regarding risk factors for homelessness among JJ young people is poor.
- No studies were found that directly examined risk factors although an Australian dataset was identified that could potentially examine correlates of homelessness post-release.
- An Australian data linkage study was found that identified female sex as a *potential* risk factor for homelessness post-release.
- There is significant overlap between the OOHC and JJ pathways, with involvement in delinquent and criminal behaviour being a risk factor for homelessness among OOHC young people. Further research is required to differentiate those involved in both systems from those involved in one or the other. This may help to inform the type of interventions that are most relevant – it is likely the interventions reviewed here and in the previous pathway are suitable for both groups with adjustments potentially required for those dually involved in both systems (e.g. intensity of the intervention).
- Overall, the quality and level of evidence regarding the effectiveness of interventions to prevent homelessness among juvenile justice young people is poor.
- There is low/moderate support for the effectiveness of transitional housing where this is combined with highly structured and intensive case management.
- Other potentially relevant models include individual-level interventions such as intensive fostering and Multisystemic Therapy. These are multi-modal and behaviourally-focused interventions that engage the whole family. Unfortunately housing outcomes are not typically examined. One study found that improvements in housing stability were not sustained post-intervention.
- At a systems level, there is scant evidence for the effectiveness of Wraparound services for juvenile justice young people despite their intuitive appeal.
- Future research needs to compare the relative effectiveness of different interventions (e.g. intensive fostering versus Multisystemic Therapy) and with specific reference to different groups of young people (i.e. OOHC young people versus JJ young people versus dual OOHC/juvenile justice young people).
- In the context of globally-high rates of detention of Aboriginal and Torres Strait Islander young people, evidence on homeless risk factors and interventions is profoundly lacking.
- Only a very small number of reports were accessible; these more generally described issues and interventions rather than providing robust evidence.
- Notably lacking was any research on release planning, engagement of families, strengthening of family relationships or the role of intergenerational trauma. Further, no specific research was found on shared determinants of preventing homelessness or reducing recidivism post-detention.

Risk factors for homelessness among young people leaving juvenile justice

As with the OOHC pathway, studies were sought that: a) identified young people before their release from juvenile justice supervision and were able to follow them over time to see who experienced homelessness and who was able to secure stable housing; or b) identified this same group post-release and retrospectively examined their pathways to housing stability or homelessness. Studies that examined juvenile justice involvement among a youth homeless population were unable to inform the research question directly but were included if they suggested potential risk factors that could be the subject of future research.

No studies were identified that directly examined factors associated with homelessness among young people being released from juvenile justice facilities. Much of the literature is focused on recidivism and associated risk factors including substance use and other behavioural problems. Homelessness or housing circumstances, when measured, was never examined as an outcome per se. For example, an Australian study used a longitudinal design to examine outcomes in the first 18 months post-release among young people leaving juvenile detention.[77] The follow-up survey included measures about difficulties finding accommodation (experienced by 10% of the sample); however, this was not associated with recidivism and given the focus of the paper on offending behaviour, an analysis of factors associated with accommodation problems was not undertaken.

The only other information about *potential* risk factors is from an AIHW linkage of juvenile justice and specialist homelessness services data (Level III-moderate). This study found that 8% of the juvenile justice sample presented to the specialist homelessness service (SHS) within 12 months of their supervision order ending.[78] Young women had a higher presentation to SHS relative to young men and this was observed for both Indigenous and non-Indigenous young people. This sex difference appears to be more prominent following periods of sentenced detention than community-based supervision. This data, however, is limited in that it describes who among those with a juvenile justice history subsequently access homelessness support and thus may simply describe the characteristics of young people most likely to *seek help*. Research on OOHC young people suggests they may be less likely to seek help given a history of maltreatment, attachment disturbances and placement breakdown. This is likely to be the case also for young offenders, of whom a substantial proportion also has a history of OOHC.

Table 21. Level and quality of evidence of included studies for the juvenile justice pathway: risk factors

	Low quality	Moderate quality	High quality
Level I evidence – systematic review of prospective studies			
Level II evidence – prospective design			
Level III evidence – retrospective cohort (temporal analysis) or case-control design		AIHW 2012[78]	
Level IV evidence – cross-sectional or case series design			

Effectiveness of interventions to prevent homelessness and sustain housing among young people leaving juvenile justice

The literature on interventions to prevent homelessness and sustain tenancies among young people leaving juvenile justice is limited. No studies were found of evaluations targeting the period prior to release from juvenile justice facilities. Only two studies were identified that examined interventions in the post-transition environment, both of which were evaluations of supported housing programs that differed significantly in the model of case management employed. Although reflecting a lower level of evidence, the Australian study has been included because of the paucity of research in this area and the insights it provides regarding the complexities of working with this population.

Secondary searches were therefore conducted to identify promising interventions that could be considered for this population. Given the overlap between the OOHC and juvenile justice populations, it could be

similarly argued that behavioural and mental health problems are worthy targets for interventions. Three interventions were considered, two of which target the young person and their family environment:

- Intensive fostering – 78 studies were identified via a database search, seven of which were excluded because they were duplicates; five were selected for inclusion in the review
- Multisystemic Therapy (MST) – 63 studies were identified via a database search and three papers were identified by desktop/manual review of reference lists; three studies were selected for inclusion in the review

The third intervention reflects a systems approach to the prevention of homelessness and was included as an example of intersectoral collaboration:

- Wraparound – eight studies were identified via a database search and three reports were located via a website search and four articles/reports were selected for inclusion in the review.

Altogether, this secondary search resulted in 12 additional articles being identified. It should be noted that these interventions typically target broader populations of young people with emotional or behavioural problems. Although these problems are highly prevalent among young offenders, they are not the exclusive domain of this group. As will become apparent, much of the literature reviewed has used samples of young people involved in the OOHC system and could therefore also inform promising interventions for the OOHC pathway. It also means the specific benefits and challenges of an intervention for a young offender population are difficult to ascertain.

A summary of the evidence found (by level of evidence and study quality) is shown below in Table 22.

Table 22. Level and quality of evidence of included studies for the juvenile justice pathway: interventions

	Low quality	Moderate quality	High quality
Level 1 evidence – systematic review (qual &/or quant synthesis)			Littell et al. 2005[88] van der Stouwe et al. 2014[89]
Level 2 evidence – RCTs, quasi-experimental studies, qual comparison studies		Valentine et al. 2015[81]	Biehal et al. 2011[84] Pullman et al. 2006[91]
Level 3 evidence – realist reviews of complex interventions, case studies or program evaluations lacking a comparison group	Nisbet et al. 2012[93] Goldfarb 2010[72]	Deakin 2013[79] Davis et al. 2014[90] Caldwell & van Rybroek 2013[87] Leve et al. 2015[86] Mackenzie & Thielking 2013[94]	
Level 4 evidence – program descriptions, opinions		Lipscombe 2003[85]	Manno et al. 2014[39]

In terms of direct evidence, an Australian study was found that evaluated the effectiveness of a Foyer-type model for young people, including a referral pathway from juvenile justice.[72; level 3-moderate] This was the only evaluation of a Foyer-type model that separately discussed the applicability of the model for young offenders. The model involved a partnership between a community housing provider and a case management service. The evaluation relied on administrative data to measure outcomes – unfortunately the juvenile justice clients (n=23) were unable to be distinguished from young people coming through the other referral pathways so housing outcomes could not be determined separately for this group. The evaluation also gathered information via semi-structured interviews with 34 key stakeholders (three of whom were clients although it is not known whether any of these were juvenile justice clients) and two focus groups (one young people, none of whom were juvenile justice clients). The evaluation findings suggested the high and complex needs of young people leaving juvenile justice meant they were unsuitable for independent

living even when supported by a floating case management model. A number of tenancies were reported to have failed within three months and a limited number of participants remained in the program for longer than six months (exact numbers are not reported; based on qualitative interviews with key stakeholders). This suggests this type of supported housing model may not be appropriate for a juvenile offender population without additional supports or an adjustment to the model. Other evaluations of youth support services have similarly found young people referred via a juvenile justice pathway were difficult to engage and retain in support.[73]

The second study was an RCT of a Transitional Living (TL) program for young people leaving juvenile detention or OOHC in the US.[74; level 2-moderate] Overall, this RCT demonstrated positive impacts on housing stability although the size of the effect was small (<0.2). Unlike previous research, the program appeared to be equally effective for young people transitioning from juvenile detention and OOHC. This may be the result of the intervention itself (involving an intensive case management approach) or due to the eligibility criteria that resulted in a relatively high functioning group of young people accepted into the program.

The intervention comprised a highly structured floating *clinical* case management model that had four components: comprehensive assessment and treatment planning with plans reviewed monthly; weekly case management sessions lasting at least an hour and typically conducted at the young person's home or nearby community setting; additional case management contact via phone calls and text messages; and monthly peer group meetings with other program participants, although these were not well attended.[75; level 4-high] Underpinning the model were three strategies employed by the clinical case managers: consistent use of evidence-informed tools to develop living skills; evidenced-based counselling techniques that all clinical case managers were trained in (e.g. motivational interviewing, cognitive behavioural therapy); and provision of practical support (e.g. attending rental appointments with the young person). Housing was not included as part of the intervention. The duration of the program was nine months and clinical case managers had a small caseload (approximately eight young people). The program targeted young people leaving OOHC, juvenile justice facilities or those otherwise considered at-risk and requiring support. Young people with severe mental health and substance use problems, or who had developmental delays or a history of severe violence, were excluded from the program. This relates to the requirement that young people demonstrate "capacity to live independently with appropriate supports" (p. ES-7). As will be described later, the program likely works with the more highly functioning group of young people leaving juvenile justice or aging out of foster care.

The study included n=1322 young adults aged 18-24 years who had been in juvenile justice or OOHC placement for at least one year after age 14 or at least one day after age 17. Participants were recruited via direct referrals to the TL program as well as a 'master list' from the Department of Community Services of all young people aged 17 years or older who were due to transition from juvenile justice or OOHC. Eligibility assessments were conducted by designated assessors, specifically trained for this purpose. This was a highly structured process and included "a housing plan to help young people maintain or find stable housing" (p. 59). Once deemed eligible, participants were randomly allocated to the TL program (n=788) or a waitlist control group (n=534). The two groups were similar in terms of demographic characteristics, OOHC and justice placements, substance use and mental health problems, and housing situations. The random assignment of participants and similar profile of baseline characteristics means differences in outcomes between the two groups can more reliably be attributed to the intervention. Approximately half of the participants completed the full nine months of the program. A substantial minority (20%) had discontinued in the program by three months while a further two-thirds remained in the program for up to five months. Some of the early discharges were thought by the clinical case managers to be appropriate because the young people were assessed as not requiring further support however the exact number of such participants was not recorded.

One-year program impacts were examined using a 12-month survey (with analyses adjusted for pre-random assignment characteristics) and found significant reductions in housing instability between the two research groups.[81] This was primarily driven by reductions in the proportion that experienced couch surfing (36% vs 44% for the program and control groups, respectively) and rough sleeping (21% vs 27%) with no differences observed between the two groups in their inability to pay rent (26% vs 30%) or loss of housing because of this (16% vs 18%). These four indicators were summed to create a total 'housing instability' score for the past year. While there was a significant impact of the program on this outcome, the effect size was small (-0.16), possibly because the majority of participants were in stable housing at the beginning of the study period, including a substantial number living with biological parents (29%) or other relatives (19%). Less than 2% of participants were sleeping rough and less than 5% resided in a group home, halfway house or

residential treatment facility at the start of the program. Moreover, while the program group had a significantly higher overall level of case management contact relative to the control group, just 37% of all case management contacts involved discussions about housing, which was low relative to discussions about education and employment (based on client survey and case management file data). Compared with the control group, the program group was more likely to receive help obtaining housing – including help with finding an apartment (29% vs 16%) – completing a rental application (22% vs 12%), and financial assistance for the bond (13% vs 8%). Some housing effects may not have been evident because the housing measures did not capture case management support to maintain existing tenancies in response to problems that arose with living arrangements.

There were also no statistically significant effects on social support or criminal involvement. Similar to the baseline findings on housing, levels of social support were high among both participant groups while levels of self-reported criminal behaviour were extremely low (0.6 out of a total of 10 behaviours that were measured). Thus, the study population was deemed to be "stable, motivated, or higher-functioning compared with young people who were not part of the study" (p.ES-12) and therefore might not reflect the sub-group of young people identified to be at greatest risk of homelessness following OOHC and juvenile justice involvement (i.e. severe mental health problems, high offending or delinquency).

When the sample was divided between those with any juvenile justice involvement (including young people with a history of both juvenile justice and OOHC placements) and those with OOHC placements only, a number of differences emerged. Among the juvenile justice sub-group, the program group had a lower score on housing instability and a higher score on social support but there was no difference in the proportion spending time in custody during the follow-up period, relative to the control group. Within the OOHC group, the program group demonstrated less housing instability and mental health problems and had a lower proportion of participants who had spent time in custody, compared with the control group. The sample was also divided into clusters based on a latent class analysis of baseline characteristics. A latent class analysis identifies groups of individuals based on the pattern of characteristics they share. In this analysis three distinct groups of participants were identified. The first was labelled as 'hindered but connected to family' and included individuals who were predominantly male, had low education and extensive involvement with the juvenile justice system, but were typically connected to their family. The second class of young people were labelled as 'maltreated but avoiding trouble'. This group was characterised as being predominantly female and involved in the child protection system owing to experiences of child abuse or neglect. They were also unlikely to have had contact with the juvenile justice system or the substance use treatment system. The third class of young people were labelled the 'long-term system-involved but engaged' because they had the most extensive histories of child protection and juvenile justice system involvement but were well connected to employment and education. Within the third group, there were small differences observed between program and control participants on housing instability, economic hardship and mental health problems with the program group faring better on all three outcomes. However, overall, there was little difference in program impacts across the three latent classes.

Other potential models

As previously mentioned, given the limited findings generated by the primary literature search, secondary searches were conducted for evidence regarding other potentially useful interventions. These included individual-focused interventions such as intensive fostering and Multisystemic Therapy as well as system-focused interventions.

Individual-level interventions

Intensive fostering involves an OOHC placement with a specific 'therapeutic parenting' model, known as the Multidimensional Treatment Foster Care (MTF-C) model, developed in the US. The model has two components: modelling and supporting appropriate behaviour in the young person during a foster placement; and working with parents or guardians to develop skills to support young people to maintain newly acquired skills when they return following their placement.[76] No systematic reviews of MTF-C were found and only one study was found that measured housing stability alongside other outcomes. Biehal and colleagues[77; level 2-high] examined the application of the model in a UK context and found a lower rate of recidivism and greater housing stability among the program participants relative to the comparison group at one-year follow-up. Specifically, more than half (56%) of the intervention group were residing with parents or relatives compared with less than one-third (29%) of the control group. However, many of the outcomes did not persist once the young person was returned to their family environment. This may indicate differences in the implementation of the model in the UK context or perhaps that a longer

placement or additional support is needed following the return of the young person to their family. Another UK study raised further issues regarding the efficacy of intensive fostering for young offenders on remand, including the short time frame to determine a suitable placement following a court order (and the subsequent increased risk of placement breakdown), as well as the premature breakdown of placements due to disruptive behaviour or re-offending.[78; level 4-moderate]

There is a large body of research regarding MTF-C; however, it is beyond the scope of the present review to synthesise this. The reader is instead directed to two papers that consider MTF-C alongside other evidence-based interventions for young people with emotional and behavioural problems. The first of these focused on randomised studies evaluating four different models, including MTF-C.[79; level 3-moderate] The authors suggest the effectiveness of these interventions relates to core characteristics that they all share including: being family-focused; use of behavioural strategies to address a range of outcomes (not just recidivism); and highly manualised and closely monitored to ensure model fidelity. The second paper also reviewed MTF-C alongside other models but with specific reference to violent adolescent offenders.[80; level 3-moderate] As with the previous paper, the authors identify a number of commonalities of effective interventions including a focus on behavioural functioning and contingency management, multi-dimensional treatment, continuous monitoring of outcomes, and a clearly articulated framework to guide professional practice.

Another potentially useful intervention is Multisystemic Therapy (MST) but findings regarding the model's effectiveness are inconsistent. Three papers are reviewed here, two of which are review papers involving meta-analyses of published and unpublished data. The first systematic review identified eight RCTs and analysed findings with respect to arrests/convictions and OOHC/custodial placements.[81; level 2-high] Evidence for the effectiveness of MST was determined to be inconclusive. The authors noted that almost all of the research has been conducted by the developers of MST. They also note the substantial heterogeneity and small number of studies, which limited the statistical power of the meta-analysis. Further, and given the high cost of delivering MST, they question the cost-effectiveness of the intervention if it is unable to produce longer-term savings in the juvenile justice and child protection systems. In contrast, a more recent meta-analysis of 22 studies found MST was effective in reducing recidivism and other psychosocial outcomes.[82; level 1-high] The different finding is likely related to several differences pertaining to study selection and inclusion – a greater number of studies was included resulting in a larger pooled sample size, both randomised and non-randomised studies were included, as were published and non-published articles, and studies were restricted to those using samples of juvenile offenders. The findings suggested MST may be most effective for Caucasian young people and young people aged under 15 years. Effectiveness may also differ depending on offending behaviour with type of delinquency accounting for differences in effect sizes across the studies. The authors submit that the smaller effect sizes observed for MST when compared to 'combination treatments' suggest the impact of MST may be due, in part, to its multimodal approach. They further suggest that the role of family functioning in the MST theory of change may not be as prominent given the recidivism outcomes were largely moderated by effects on parenting and not family.

Aside from the two review papers, a third paper was found describing housing and other outcomes from a small pilot involving an adaptation of MST for older young people aged 17–21.[83; level 3-moderate] All of the young people involved in the intervention had serious mental health problems and past-year involvement with the justice system. The pilot recruited n=36 participants from community mental health or child welfare services as well as juvenile or adult justice supervision services. The sample is therefore not entirely consistent with the scope of the present review. A pre-post study design was employed and demonstrated improvements in the key program outcomes of recidivism and mental health symptoms. There was no statistically significant improvement in housing, however. Given this was a small pilot to test feasibility in an older cohort, the lack of improvement in housing circumstances may be a result of the small sample size, program eligibility criteria or an error in reporting (as the proportion of participants across the three residence categories exceeded 100%). Further research is required, particularly in light of the conclusions drawn by the systematic reviews described above.

System-level interventions

System-level interventions target processes designed to identify and intervene at a population level. While the research included in this section is not entirely in scope (as it focuses upstream from the transition period) it does demonstrate the capacity of intersectoral collaboration to prevent adverse outcomes for at-risk young people. The literature suggests there is some overlap between the juvenile justice and OOHC populations, suggesting a need for these two systems to work together and an

exploration of common antecedents that might be better addressed by a unitary intervention rather than separate mechanisms.

Wraparound refers to a strengths-based community-level intervention involving service planning and coordination. Although there is growing literature on the effectiveness of Wraparound for at-risk children and young people more generally, research on the effectiveness of these models specifically for young offenders is limited, with only a handful of program evaluations having been conducted.[84] Moreover, none of these evaluations included housing as an outcome – the outcomes of interest for most studies are a reduction in recidivism and improvements in emotional/behavioural problems. The most well-known intervention is Wraparound Milwaukee. Although there have been two published studies (pre-post cohort design, no comparison group) we were unable to obtain a copy of these papers within the time frame of the review. A website search located a brief report that documented an overall recidivism rate of 12% among program participants (n=411) and a declining trend in the proportion of participants re-offending over a nine-month period.[85; level 3-low]

The highest level of evidence for Wraparound services comes from an evaluation of 'Connections.'[84; level 2-high] This intervention was delivered by a team comprising a mental health professional (who took on the role of care coordination), family support worker, probation counsellor and juvenile justice officer. Each team had a caseload of 25 families with young people selected according to the following criteria: minimum probation period of six months; diagnosed behavioural health disorder; multiple systems involvement; and moderate-high risk of re-offending. Analysis of program administrative data found that, relative to the historical control group, those receiving the intervention took longer to recidivate, had fewer episodes of detention and less overall days in detention. The intervention group also had improved scores on the measures of emotional and behavioural problems. The study was unable to draw any conclusions about which program elements were responsible for these outcomes (no fidelity measure was used and no qualitative data was collected), nor was an economic evaluation undertaken.

Two studies describing the application of systems-level interventions in an Australian setting were identified. One of these was a small pilot of a Wraparound service called the Family Inclusion Project.[86; level 2-low] The pilot was extremely small, working with just four young offenders and their families in a regional NSW town. All of the program participants were male. Administrative data was used to examine recidivism with two participants re-offending during the intervention; no other outcomes were measured. Interviews were also conducted with two young people and two staff at the end of the pilot. The young people described low engagement with the program while the staff highlighted the improved coordination across the different service systems as a positive outcome of the pilot.

Similarly, The Geelong Project is a place-based intervention that combines early identification of risk with early intervention embedded in a whole-of-community response.[87; level 3-moderate] The target population is all young people, rather than those typically described as being 'at risk' such as young offenders and young people in OOHC. Population screening of high school students is undertaken to identify those at risk of homelessness given school may be one of the first places that antecedents to homelessness, such as truancy and disruptive behaviour, are observed. These young people are then matched to one of three intervention levels involving community and government organisations. At this stage the evaluation is cross-sectional, involving baseline data collection comprising case studies, youth survey to ascertain homelessness prevalence and associated risk factors, and routine collection of program outputs. Opportunities for longitudinal measurement will be engaged as the project develops.

People leaving prison

Key evidence points:

- Having been incarcerated is identified as a risk factor for homelessness; homelessness or housing instability is a risk factor for recidivism – this is described as a reciprocal relationship.
- Few papers were found that directly examined risk factors for homelessness among people leaving prison; most studies considered homelessness as a risk factor for recidivism with time to recidivism being the primary outcome of interest.
- Age at release and recidivism were the only two factors found to be significantly associated with homelessness by the two studies that directly examined risks; these studies were limited in the range of risk factors they considered.
- Indirect evidence suggests structural issues may play a role, including a lack of affordable and supported housing suited to the needs of those returning from prison. Damage to family and community relationships and ties because of incarceration also reduces availability of housing and support options.
- Relatedly, inadequate assessment of needs pre-release and lack of pre-release planning contribute to this risk.
- Risk of homelessness may be hidden immediately post-release because release from prison demands a community address be given which may be unstable and contribute to later homelessness.
- With regard to interventions, much of the research is focused on preventing recidivism rather than homelessness post-prison release, with recidivism meaning either a return to prison, re-arrest or revocation of State Orders such as parole or bonds.
- In synthesising the evidence, four 'pillars' contributing to success emerged: i) intersectoral collaboration (including bridging the gap between services and sectors); ii) pre-release planning; iii) post-release housing; and iv) coordinated case management.
- One gap in research was the role of family, to whom some return, albeit briefly
- None of the higher-level evidence described the effectiveness of interventions for Aboriginal and Torres Strait Islander peoples specifically; a program evaluation providing lower-level evidence outlined critical features of care worthy of further development and research such as holistic care and integration between health, legal, community and family services.
- A small number of non-peer reviewed reports were available focussing on Aboriginal and Torres Strait Islander peoples. However, these identified neither risks for homelessness, nor effectiveness of interventions to prevent homelessness specifically.
- These reports did, however, identify from Aboriginal and Torres Strait Islander peoples' perspectives enablers and barriers to accessing services for support, as well as critical success factors for improving wellbeing and healing accumulated trauma, with key insights into the role of mentors and informal carers in the transition period.
- These reports provide promising insights into research questions and methodologies for the homelessness context.

Risk factors for homelessness among people leaving prison

Housing is often described as a vital first step to establishing stable community living after release from prison, particularly to reduce risks for reincarceration.[95] However, surprisingly few studies examine homelessness as an outcome, instead focussing on the effect of homelessness on recidivism. Many studies focus on establishing caUSlity between homelessness and incarceration – on linking these – rather than examining factors contributing to homelessness per se. This is partly due to the complex relationship between incarceration and homelessness, with these recognised as 'reciprocal' risk factors, which are multi-directional and influenced by other personal and societal factors.[96]

Very few studies were identified that either measured or explored the association between risk or protective factors and homelessness – only three such studies were found.[96-98] Two studies used prospective designs, one measured homelessness and one measured housing stability, and both were from the US and deemed to be of moderate quality. The third was a Norwegian cross-sectional study that examined intended living arrangements upon release and was of low quality. Two additional studies were found that provide indirect evidence. One of these was a longitudinal study of Australian offenders and included housing instability as an outcome comparing ex-offenders with and without mental disorder.[99] The fifth study used a quasi-experiemental design to test the effect of offence type on discrimination by landlords.

A summary of the risk factors identified by these three studies can be seen in Table 23 with significant associations shown in bold.

Much of the literature reviewed in this section provides indicative evidence for potential or likely risk factors. Risk factors for homelessness occur at multiple 'levels': structural, programmatic, community and individual.[100, 101]

Structural influences on post-prison homelessness

Lack of low-cost, available social or private housing stock was identified overall as one of the key barriers to temporary or longer-term housing post-prison release among ex-offenders accessing accommodation support.[100, 102] Many ex-offenders come from and return to neighbourhoods of low socio-economic status, with intergenerational economic deprivation and poverty, lack of employment, and limited affordable housing; several studies have found these factors contribute to both homelessness and recidivism.[100, 103] For example, a study that randomised 269 offenders into post-prison release support or usual care, showed that location mattered because it facilitated or inhibited access to further support, social inclusion and opportunity.[97]

Relatedly, housing instability post-prison release has been identified as a key risk factor for reincarceration[96, 104] In the Australian context, Baldry et al[103] and Willis[105] argue that such housing instability is related to lack of choice by ex-prisoners to reside in accommodation they perceive as appropriate and beneficial to their community reintegration, with few options or alternatives in terms of location, type and shared arrangements. In Baldry et al's study[45], 119 of the 226 participants interviewed pre- and post-release said their housing was unsuitable, with half statistically significantly more likely to return to prison compared to a quarter of those who deemed their accommodation suitable. Moreover, housing options have been found to worsen over time and with more periods of incarceration.

At the population-level, a small number of populations have consistently been found as over-represented in coming from and returning to these 'disadvantaged' areas, as well as being over-represented in correctional facilities. Very little research specifically about their experience is available or explored, such as from Aboriginal and Torres Strait Islander peoples' perspectives. Instead cultural identity is construed as a risk factor for both recidivism and post-prison release homelessness.[106] Cultural identity, however, may also reflect broader social or structural risks. For example, the forced removal of Aboriginal and Torres Strait Islander children from their families, communities and culture occurring under government policy until at least the 1970s, created Stolen Generations who are over-represented in Australia's prisons as well as in data about homelessness.[107-109]

Several other system difficulties were discussed in terms of their contribution to risks for reincarceration, as well as homelessness. These included not having proper identification or documentation such as birth certificates or a drivers licence which impedes access to other forms of assistance including income support and medical care[110-112] and delays in income support being enacted.[100] Also under-researched and relatively hidden, is the issue of pre-existing debt to public housing authorities and the barrier this creates post-prison release as well as risk for reincarceration – Baldry et al's study[103] found that 63% of those with public housing debt returned to prison compared with 45% of those with other forms of debt.

Table 23. Summary of risk factors examined in relation to homelessness or housing instability for the prison pathway

	Duwe 2012[97] Level II-mod (n=269)	Metraux & Culhane 2004[96] Level II-mod (n=48,424)	Cutcher et al 2014[99] Level II-mod (n=1324)	Evans & Porter 2015[110] Level III-mod (n=500)	Dyb 2009[98] Level IV-low (n=316)
Demographic characteristics	Male sex Ethnic minority **Age at release (OR 0.9)** Employment post-release Committed relationship Income support Crime-related debts Other debts	**Male sex (HR 1.5)** **African-American ethnicity (HR 1.2)** **Age at release (HR 1.0)**			Male sex Age Country of birth (Norway) Apprenticeship **Post-school education** **Income source (salary) (OR 3.3)** **Marital status (Married/de facto) (OR 5.1)** Age Sex
Education and skills	Education at admission Education qualification gained during imprisonment Enrolled in education post-release Enrolled in vocational training post-release				Post-school education **Apprenticeship (OR 0.2)**
Physical and mental health	Continuity of substance use treatment from prison to community		**Lifetime diagnosis of mental disorder (OR 1.5, unadjusted)**		
Trauma and victimisation					
Social and community	Sources of social support				
Offending behaviour	Number prior supervision failures Number prior felony convictions **Risk of recidivism (OR 0.9)** Number days to re-incarceration	**Prior felonies (HR 0.9)** **Prior misdemeanour (HR 1.1)** **Reincarcerated & released in follow-up (HR 5.3)** **Parole violation (HR 1.2)**		**Criminal history: child molestation, statutory rape, drug trafficking versus no offence history (F(3966)=165.9)**	**<2 months of sentence remaining** No prior imprisonment Prisoner category (custodial sentence)

Program characteristics	Admission type (new, probation violation, release violation) Offence type for current incarceration **Length of stay (OR 1.2)** **Number of disciplinary actions during incarceration (OR 0.8)** Participation in community support programs post-release	**Previous shelter use (HR 4.9)** Previous incarceration Admission from, or release to, mental health facility **Conviction type – burglary (HR 1.2)** Conviction type – assault Conviction type – drug distribution, possession **Conviction type – weapons related (HR 0.6)** **Conviction type – violent offence (HR 1.1)** **Released on parole (HR 1.8)** Year of release **Time incarcerated (HR 1.0)**			**Rented (OR 7.3) or owned (OR 17.9) dwelling before prison** **<2 months of sentence remaining (OR 5.3)** Remand versus sentence
Structural factors	County of release and supervision Community crime rate				
OUTCOME	Housing stability – number of residences in six months post-release	Homelessness – shelter use post-release	Unstable housing – two or more moves in six months	Property inspection	Housing stability – intention to reside in fixed abode after prison

NB bolded risk factors are those that were found be significant

Program-level factors

In general, people who have been homeless before incarceration are considered at greater risk after incarceration, regardless of type or length of homelessness.[113] For example, Dyb's study of a representative sample of prisons among 299 inmates in Norway found that incarceration worsens risk of homelessness: two-thirds of their population had not retained a dwelling while in custody, and two-thirds were homeless upon release, despite only one-third being homeless before incarceration.[114] That is, incarceration contributes to more homelessness and housing instability. Similar results were found in a longitudinal study of 12,600 people interviewed regularly since 1979[115], as well as a large study among 50,000 people released in New York City.[113]

While this evidence connects homelessness and incarceration, planning for accommodation post-prison release is still "almost completely overlooked."[114] Part of the issue is prisoners having to provide a fixed post-incarceration address to secure their release, therefore propensity for homelessness risk to be hidden is the norm. Dyb acknowledges:

> *…in many cases this will not be where the person actually lives. Having an address from the very beginning is less likely to draw attention to the person's housing situation later on… The address may belong to a family member or friend, but in any case it is not the place where the ex-inmate intends to live or may even be welcome. Thus, intervention intended to promote and ease reintegration can cause the system to malfunction…* [114, p812]

Relatedly, other research has documented inadequate assessment or needs being under-assessed [4], as well as disconnections in discharge procedures between prisons and other institutions [5]. Further, this situation is compounded by the experience of uncertain release dates.[118, 119]

In a prospective study of recently released offenders in the US, only 5% of males and 10% of females arranged public housing for their post-release life [8]. In contrast, 55% of their study population interviewed between 1–3 weeks post-release and again 2–9 months post-release were already considered homeless, with multiple other social and health stressors at this early time post-prison release. Likewise, the Post-Release Experiences of Prisoners in Queensland (PREP-Q) study conducted among people four weeks pre-release found that 19% of males and 15% of females had made no arrangements for housing before they left prison.[121] This finding was consistent with other studies showing that little preparation in terms of arranging stable housing or ensuring any income is realistically undertaken.[122] In 'usual care' in Queensland correctional centres for example, only those serving longer than 12 months have access to exit planning, which is optional not routine. Only a minority of Aboriginal and Torres Strait Islander people have been found to access Queensland's relatively new mainstream-focussed Transition Programs.[123]

Lack of system and care coordination has been reported as hampering efforts to support prisoners in their critical transition from custody, with poor partnerships between community-based services and government agencies a serious concern.[124]

Aside from transition planning, there is some evidence that characteristics of the prison stay are associated with homelessness or housing instability post-release, although the findings are not consistent. For example, in one of the few prospective studies conducted in this area, multivariate modelling did not find an association between length of prison sentence or type of offence and access to housing among a sample of US offenders leaving prison.[125] In contrast, another US longitudinal study found an increased risk of homeless shelter use for offenders who were released on parole, and those with a conviction of burglary, weapons-related or violent felony offence but not drug-related offences.[113]

Community-level factors

Incarceration has been shown to damage social relationships.[126] People exit custody faced with the reality that their families and communities may have changed[127] and been stressed as a result of their absence [16], becoming more 'disorganized', with scarce resources.[129] 'Collateral' effects of incarceration reduce communities' capacity to reintegrate people[129-132] and weakens ties to positive social supports, "and in some instances, actively discourage them" [133; p.41-42] Post-prison release community reintegration of an individual is influenced by these relationship and social factors, and in turn are risks for homelessness and reincarceration.[119] However, contact with, or support provided by, family has not been explicitly examined as a risk factor for homelessness or housing instability in the post-release period.

Baldry et al. [134] also found a marked reticence among ex-prisoners, particularly in NSW, to use services other than for income support through Centrelink, with very few even considering seeking help. Howerton et al[135] similarly reported this distrust for services, which extended from pre- to post-release. However, individual

differences in level of trust for government services have not been explicitly measured in relation to housing instability or homelessness.

Finally, while there is some evidence that stigma and labelling of ex-offenders is a general barrier to accessing housing in this population [136], there is no evidence that offence characteristics are specifically related to this. One quasi-experimental study, in which the researchers posed as ex-prisoner 'testers' seeking rental accommodation, found that that landlords were significantly less willing to consider prospective tenants with a criminal conviction.[137] Such discrimination also restricted access to permanent housing provided by community organisations [138] and may be especially real for sex offenders who in most jurisdictions are not to be released without an address, with multiple other legislative requirements and restrictions on housing.[139]

Individual-level risk factors

Findings related to specific demographic variables have been inconsistent, with homelessness or housing instability sometimes associated with being male and other times not [113, 125] and younger and older age both being associated with increased risk of homelessness. [113, 125] The number of studies examining these factors, however, is small.

In the only study to specifically examine the relationship between mental health problems and homelessness among ex-offenders, admission to a mental health facility in the year post-release was not associated with homeless shelter use.[113] Few, if any, studies directly assess relapse to substance use post-prison release and risk of homelessness, in part because of other influences and compounding reincarceration risks at this time.[140]

In summary, the key risks for homelessness post-prison release reflect those for reincarceration, although there is a dearth of literature specifically examining risks with homelessness as the outcome measure. Homelessness and incarceration have been described as having a 'reciprocal relationship' and because of this it is difficult to clarify separate risk factors for each in the absence of prospective study designs. As a result, this section explored a range of potential risks for homelessness post-prison release, particularly lack of pre-release planning, housing instability, poor community support, and pre-existing and co-occurring drug and alcohol and mental health issues.

In an evaluation of a NSW prison-to-community support service for women, the early period post-release is seen as most critical:

> *The transition from correctional institutions is seen as too challenging for some clients who need intensive support to build skills and understanding of the responsibilities of sustaining an individual tenancy, as well as getting settled out of custody in the initial three months post-release period in particular.* [141; p.29-30]

Effectiveness of interventions to prevent homelessness and sustain housing among people leaving prison

The Australian Institute of Criminology provided good guidance on risks and prevention of homelessness among people leaving prisons in their Final Report to the National SAAP Coordination and Development Committee, *Ex-Prisoners, SAAP, Housing and Homelessness in Australia*.[136] It is too extensive to fully review here and does not present primary evidence as such. However, it provides excellent summaries of key strategies to prevent homelessness among those exiting prisons in the Australian context, drawing on a wide range of evidence.

Since Willis's report, landmark revisions occurred in 2015 to the 1955 United Nations Rules for the Treatment of Prisoners, now called the Mandela Rules. [136] With relevance to preventing homelessness among people exiting prisons, the Mandela Rules require greater commitment to rehabilitation, non-custodial measures, healthcare, continuity of care (including with community organisations), education opportunities, improved prison conditions and staff training, ensuring "reintegration of such persons into society upon release so that they can lead a law-abiding and self-supporting life" (Rule 4). Since Willis's 2004 report, rates of incarceration of Aboriginal and Torres Strait Islander peoples have doubled. In light of this, as comprehensive an alignment as possible to the Mandela Rules may help reduce the over-burden now experienced by Australia's First Peoples. The Mandela Rules provide a human rights framework to inform evidence checking, with the Mandela Rules expected to be reflected in legislation and policy of UN member states.

Eight studies were found that provide some evidence of the effectiveness of interventions to prevent homelessness among people leaving prisons. The level and quality of evidence they provide are shown below in Table 24.

Table 24. Level and quality of evidence of included studies for the prison pathway: interventions

	Low quality	Moderate quality	High quality
Level 1 evidence – systematic review (qual &/or quant synthesis)			
Level 2 evidence – RCTs, quasi-experimental studies, qual comparison studies		Duwe 2012[125] Fontaine 2013[158] Woods et al. 2013[145]	Lutze et al. 2014[159]
Level 3 evidence – realist reviews of complex interventions, case studies or program evaluations lacking a comparison group		Quilgars et al. 2012[119] West et al. 2013a[141] Ross 2003[147]	
Level 4 evidence – program descriptions, opinions	Buck et al. 2011[150]		

Coordinated care for post-prison success: four pillars of intersectoral collaboration, pre-release planning, housing and casemanagement

In reviewing evidence about effective strategies to reduce prisoners exiting to homelessness, four pillars for post-prison success emerged: intersectoral collaboration; pre-release assessment and planning; release to pre-arranged housing; and casemanagement in the community. In simple terms, these are 'coordinated care.'[142] Each of these pillars has an historical and contemporary literature; taken together and in the context of prison exit, less is available. However, among the contemporary literature these pillars of coordinated care are frequently discussed. Due to a great body of criminological reviews and commentaries published about 'what works' during the 1990s and 2000s, the more holistic process of coordinated care has more evidently been adopted in the last decade, with more sophisticated research undertaken and published.

While 'throughcare' is still considered an ideal – supporting prisoners to access rehabilitative care from the time they come in contact with the criminal justice system until beyond release[143] very little evidence is available demonstrating its uptake or implementation by authorities, and therefore its effectiveness.[144] However, the programs and research reviewed here all use key strategies for implementing throughcare – coordinated care based on the four pillars of post-prison success. It is difficult to discuss each of these pillars separately, because as several authors have noted, it is difficult to apportion caUSlity to one characteristic of a program when the program also contains other characteristics. Instead it is likely that success can be apportioned to the inter-relationship between program characteristics, as well as those of individuals participating in the program.

Three programs in particular demonstrate coordinated care and the four pillars of post-prison release success. These are:

- The *Minnesota Comprehensive Offender Reentry Plan* (MCORP) was evaluated through its randomised experimental design and comparison of the experiences of 175 participants to 94 in a control group who received usual care (Level 2 evidence).[125] MCORP was developed through collaborations between a mix of legislators, government officials and community service providers, reflecting best-practice evidence and local resources and context.
- Similarly, the *Connecticut Building Bridges Reentry Initiative* (CRI) was evaluated using a longitudinal quasi-experimental design (Level 2 evidence).[145] Data for 173 clients enrolled during the first 18 months of the program were analysed, as well as post-release service log data for 126 clients. A demographically matched comparison group of inmates was created, and received standard pre-release services through the State of Connecticut Department of Correction.

- The evaluation of community-based agency Shelter's Prisoners Advocacy Release Team (PART) was a longitudinal, mixed methods study, using within-group comparisons and comparison with outcomes of a similar program at a women's prison (Level 3 evidence).[119]

Each of these programs relied on their ongoing collaborations across government and community agencies, for information flow and to meet needs of both prisoners and organisations. Each accessed prisoners within 3–6 months of their release. Pre-release assessments and planning then occurred between corrective services and other department staff, program staff who were generally called case managers, as well as the prisoner. For MCORP especially, community supervision agents were involved; these appeared akin to Community Corrections Officers in NSW. Case managers coordinated the relationships and communications as well as mechanisms for accountability. For CRI, participants were 'centrally involved' in making their plans and plans were reviewed every 60 days. The plans had a 'strengths and needs' summary as well as a strengths-based approach to connect people to post-prison release housing, employment, healthcare and community supports [145; p.832]. PART's joint care team was able to be co-located at the prison, and targeted short-term prisoners with less than 12 months' sentence, who are often excluded from such programs. Referrals were made to PART by prison staff, Shelter's existing housing advice worker located in the prison, other community-based organisations working in the prison, and by prisoner self-referrals.

Each of the three programs provided post-prison release, coordinated case-management, referrals and links to access housing, and support to maintain housing once it was attained. In terms of length of care, the programs all extended from pre- to post-prison release. PART provided support for up to 12 months. The average follow-up of MCORP was 16 months, while participants could remain in the CRI program for up to three years. All three programs provided links to a range of health, medical, social and other supports identified on the pre-release plan and adjusted community reintegration plan over time.

In terms of effectiveness, all three programs demonstrated an impact on recidivism and factors that influence homelessness. PART was the only program that reported clear data on homelessness.

PART's evaluation included analysis of administrative data on 192 people at sign-up and point of leaving the service, as well as qualitative interviews with 22 participants conducted at baseline and tracked over 18 months to result in 10 longitudinal interviews. This data was compared with 27 non-PART ex-prisoner interviews. Additional data came from retrospective interviews and staff of key agencies. Two-thirds of PART's services users (63%) expected no accommodation on release, with the majority having experienced housing problems before incarceration. PART users' average age was 33. The majority reported alcohol and drug dependence, half reported mental illness and a third had physical health or disability support needs. PART results showed 31% were accepted for and allocated a tenancy, 34% were provided with temporary accommodation and 13% had not yet had an outcome of their housing authority application. Over 9–12 months of post-prison release support, half of the service users had either reached their support plan goals, were in progress or were referred to more appropriate support. At the end of 18 months, most PART participants who completed their support plan had maintained or improved upon their housing; 12% were living in settled independent tenancies, 20% in supported accommodation or hostels, and 22% with family and friends. A further 20% had been reincarcerated. A reduction in expected offences was observed, with savings associated. From post-release interviews with PART participants successfully housed, the pre-release plans and subsequent support plans and actual support received were considered vital to arranging and maintaining accommodation. Conversely, as Quilgars et al. reported[119; p.63]: "most of the people who did not complete their support plan at case closure had a failed resettlement outcome".

Results of the MCORP evaluation (175 participants and 94 in a control group) showed significantly less MCORP participants had multiple residences compared to the control group (54.1%), indicating greater housing stability.[145] MCORP participants were significantly more likely to live with other supported housing clients, and less with parents or in a single family dwelling as owner or occupant. In addition to understanding housing experiences, MCORP data also focused on addressing underlying determinants of homelessness and recidivism. Significantly more MCORP participants were in employment, and significantly more reported having friendships and professional support, as well as a wider range of support across mentoring, restorative justice circles and faith-based care. Significantly more MCORP participants were in educational training and had accessed income support. MCORP participants also had lower recidivism rates across rearrest, reconviction and reincarceration.

The CRI evaluation showed similar results. Data for the 173 males enrolled during the first 18 months of the program, whose average age was 32, showed almost 90% were housed, with most transitioning into halfway houses or private residences. Most reported substance abuse histories, and half of these reported receiving

treatment including residential and clinical care. One-fifth of the participants had mental illness, and two-thirds met goals around attaining related health entitlements. The CRI reported good attachment of participants to the program from pre- to post-release, with 65% remaining involved. Factors that predicted staying in contact with the CRI were employment, living with family or on their own. Woods et al (2013) also found that participating in community support programs, including mentoring, peer support and mediation predicted a lower likelihood of recidivism.

While obviously not all service users were able to remain out of prison, these programs showed they were able to contribute to a greater number achieving this. For some, the return to prison was related to legal system factors out of their control rather than their participation in new crime as such. So, the measure of recidivism is an arbitrary one, yet little other research measures progress made in either housing stability or improvements in wellbeing, empowerment or strengthening of social ties. Nonetheless, the three programs explored above showed that for reasonably large numbers of service users in urban areas, coordinated care (based on four pillars of intersectoral collaboration, pre-release assessment and planning, connection to housing and casemanagement) made a positive contribution.

Australian program evaluations

In addition to the evidence for effectiveness of coordinated care for post-prison success, and the related four pillars (intersectoral collaboration, pre-release planning, housing and casemanagement), two programs undertaken in the Australian context have also shown improvements in housing stability and reducing recidivism among people returning to the community from prison.

The first, one of the most prominent Australian post-prison release support programs with an emphasis on housing is the Targeted Housing and Support Services (THaSS) for women leaving custody in Western Sydney (level 3-moderate evidence).[141] THaSS enacted Priority 2 of the NSW Homelessness Action Plan, to "transition and maintain people exiting statutory care/correctional and health facilities into appropriate long-term accommodation" [146; p.15]. Evaluation data consisted of administrative record reviews and interviews, with no baseline or comparative data available. Corrective Services NSW (CSNSW) was the lead agency for THaSS, and contracted the Community Restorative Centre (CRC) for program delivery. The CRC has a number of other partnerships and relationships through which to provide services and support across housing, legal, probation and parole, health, employment and social support and Aboriginal and Torres Strait Islander-led services.

The CRC ideally connects with women three months before their release from prison, promotes the supports available, and deals with referral, assessment and engagement, development of an Individual Support Plan and identifies suitable accommodation and post-release intensive support. Nominal resettlement costs are also funded. A caseworker is assigned to each client to secure accommodation and provide intensive tailored case management on a "floating" outreach basis, together with coordination of services and support. Caseworkers have a low caseload in recognition of client complexity and the model has a phased approach. Support steps down over 12 months from an intensive level to moderate, then low and disengagement over time. In the first year of the THaSS project, 20 housing units were allocated through the Nation Building Economic Stimulus Plan; however, these were not available in subsequent years so CRC partnered with community housing providers to facilitate access to housing.

In year one, 25 clients participated in the program, with 30 in year two, from three correctional facilities. The total of 55 was higher than the target of 40, and was based on responding to expressed need. All were provided with accommodation, which occurred through ongoing collaboration with housing providers and holistic care post-release. A total of 13 participants achieved the goals they had set. While a higher number of 24 exited during the program period for varying reasons, they nonetheless had increased access to accommodation and linkage to other services. Clients also reported positive health, wellbeing, education, family, financial and other outcomes. A key role of THaSS was in helping participants stay engaged with the services and programs required of them by community corrections. The positive outcomes were therefore not solely due to the THaSS program alone.

Critical success factors of the CRC reflect the four pillars of case coordination identified earlier and are exemplified in the following quote of a key stakeholder:

> *The capacity of CRC to develop productive working partnerships was consistently identified as a key success factor by many stakeholders. Benefits from this have been both increased access to accommodation and many mainstream services on the one hand, and also heightened awareness in other services of the complexity and nature of the support needs of the client group.*[141; p9]

With some similar processes, Ross[147] (level 3-moderate evidence) showed in his evaluation of Bridging the Gap (BTG) undertaken in Victoria, that pre-release planning, screening and recruitment of prisoners for eligibility at least six weeks before release also occurred, and provided time for a relationship to develop between the prisoner and BTG staff member, with in-prison visits two or three times over that period. Post-release engagement extended for six months post-release, reducing in intensity. Coordination and regular meetings with Community Corrections, the Office of Correctional Services and the evaluation team also occurred. A total of 331 people went through the release-planning process. Variation was noted across age, higher proportion of women (20%) compared with those in prison at the time. Release goals were set across accommodation, relationships, lifestyle, employment and health, negotiated in stages. A post-release planning process also occurred, particularly addressing pressing needs.

Of the 331 who made a release plan, a majority made contact with the key support agency recommended, with only 14% not doing so. Just over half were still in contact with this agency six months after release. Nearly a third of all referrals made during BTG were for housing, and of 173 reports on six months outcomes for clients, half (51.4%) were reported as being in stable accommodation. Although 39.9% were not and 8.9% were unknown, this was still considered to be a likely increase compared to no involvement in BTG. In the six months post-release clients had an average of two housing changes, with only about 30% retaining the same accommodation in that time due to issues such as family or co-resident conflict and inability to pay rent.

Little change occurred in employment status from pre-incarceration, with frequent unrealistic ambitions being cited among participants about finding work, and with parole reporting impeding this for some. Reconnection with family, children and other social supports was also a difficult and long-term process, and thought to influence decision making about housing as well as housing stability. Approximately 90% of the BTG release plans nominated a goal about drug and alcohol addiction treatment, with 66% taking some form of this up post-release. The majority reported not being at risk of harm from drug use, violence of self-harm, and 60% did not re-offend.

A third program important to describe here is the Returning Home, Back to Community from Custodial Care, a pilot project funded by the Commonwealth Government in three sites around Australia to support Aboriginal women leaving prisons.[124] It is one of the only such programs to be implemented in recent times. Case studies of each site were undertaken using the Ngaa-bi-nya Aboriginal-led evaluation framework, as well as cross-case analysis (Level 3 evidence). Each site had strong leadership by Aboriginal and Torres Strait Islander people, although only one was Aboriginal community-controlled, in accordance with best practice and rights. [148, 149] While the three sites differed, each experienced structural barriers hindering communication and developing shared goals between governments and services. One site particularly overcame such barriers, to then develop individual care pathways for 126 women. However one site was not able to access women in prison for pre-release planning at all, and another had mixed experience, impeding capacity to meet performance indicators. Effectiveness in Returning Home service delivery was enabled by coordinated care planning, the creation of 'safe spaces' and group-based healing, building on strengths of the women and creating connections to other services and informal community supports.

Additional insights into pre-prison release planning

In addition to the work of the programs explored above, a number of other programs are worthy to explore because they target particular populations or contexts. For example, the Jail Inreach Project, under the auspices of Healthcare for the Homeless-Houston, provides Level 4 evidence about coordinated care, but from a primary healthcare perspective for people with high needs across mental illness, substance abuse disorders or both, and a history of recent homelessness and recidivism. The Jail Inreach project model of care included pre-release assessments by staff, a discharge plan, medical records transfer through the criminal justice and public health systems, and coordination between justice and health service providers.

Jail Inreach reported 492 encounters by 275 people, with 150 participating in their study.[150] They found that more than half remained linked to their support services post-prison release, with 36% lower arrest rates compared with the one year before contact, and 56% less charges one year after contact with the program. Those who did go back to jail had shorter stays. The authors theorised that Jail Inreach program's effect was related to "bridging gaps between services provided in the jail with services provided in the community" (p. 122), reinforcing the point about a number of strategies being involved in this.

Also in a health context, Young et al [151], used cohort data from the intervention and control arms of an RCT of a service brokerage intervention among 1325 adult prisoners within six weeks of expected release in Queensland and telephone follow-ups at one, three, and six months post-release, or in custody if that again

occurred. With a particular focus on data about primary care physician contact (PCP), the evaluation found that "PCP contact increased among those who reported participating in prison transitional programmes compared to those who did not", concluding that there are "modest benefits of transitional planning."[151; p9]

In the context of older prisoners, Williams and colleagues[152] used data from the 2004 Survey of Inmates in State and Federal Correctional Facilities to conduct a cross-sectional study of 360 prisoners aged 55 and older who were within two years of release. The average age of study participants was over 60, with the majority employed before arrest but risking unemployment post-release due to increasing age and having one or more medical conditions such as heart disease and arthritis. A third indicated they had a disability, and nearly half reported alcohol dependency, with at least 10% reporting serious mental illness. While not testing coordinated care as such, these figures indicate the multiple areas of need to target in models of care, and that coordinated care may be necessary for the potentially increasing numbers of ageing prisoners, which are expected to rise in the future.

Also focussing on a slightly older population, Tsai and colleagues[153] used data on 30,348 people from the Health Care for Re-entry Veterans (HCRV) program, which assists incarcerated veterans in the US. They compared incarcerated homeless veterans with incarcerated non-homeless veterans. HCRV specialists work closely and collaboratively with correctional institutions to identify veterans, run information sessions in prisons, and also conduct comprehensive health, psychological and social assessments and planning for the post-release period. The analysis found that the chronically homeless incarcerated veterans were more likely to engage with HCRV's services as well as those of Veterans Affairs and also mental health and substance abuse treatment, medical care, vocational support and case management. The data did not show uptake of these services as such, but the authors were buoyed by the response and willingness of homeless incarcerated veterans to do so, challenging the myth that homeless people do not seek support.

In one of the only studies investigating pre-release planning and post-release support among Australian Aboriginal people, Williams[154] found through a multi-stage, qualitative grounded theory study that pre-release planning, housing and aftercare occurred with informal supports such as family members, and rarely through formal service providers. This was partly due to few services available in Australian prisons developed for or by Aboriginal and Torres Strait Islander people. However, the informal support people provided links to formal supports post-prison release, particularly Aboriginal and Torres Strait Islander community-controlled services. The study findings suggest involving family in pre- and post-release planning, and taking into consideration the inter-generational caring roles many have, both for their own children and older family members.

Provision of post-prison release housing

This next section turns to consider the provision of housing immediately post-prison release as an important strategy to prevent homelessness. A forthcoming systematic review of quantitatively-evaluated models of supported accommodation in the US for incarcerated adults without specific mental illness or substance use disorders, supported accommodation programs (Level I evidence) and found mixed results in terms of their impact on recidivism.[155] While the review measured recidivism rather than homelessness, again, risk and protective factors for the two are considered 'reciprocal' in this population.

The authors assessed 166 publications in full and included nine in their review, with six including a matched sample to assess effectiveness, and three used an unmatched comparison sample. All nine programs provided supportive housing and mostly in the form of 'halfway houses' i.e. "temporary, transitional group residence for adults recently released from a correctional setting" (p. 5). This immediately reduced short-term post-prison homelessness. Varied results were found among the nine programs in terms of their impact on recidivism – some led to less recidivism and some led to more because:

> *people participating in a supported accommodation program are likely to be under closer supervision than people released from custody who do not enter such a program, and therefore parole violations and new offences may be more likely to be detected* [155; p15]

Therefore, post-prison release housing must come with other supports to reduce criminal activity and debts as risks for reincarceration, as well as provide additional support to reduce risks of parole violation.[156]

Clark's[157] work found this conundrum too. Clark examined five post-prison release housing options in the US using data from Reentry Plan modules in the Minnesota Department of Corrections Correctional Operations Management System (COMS). In that State every person completes a re-entry plan prior to release with an institutional case manager, who then works with community corrections supervisors to ensure the intended address is suitable and approved. Clark then studied outcomes related to private residential housing,

transitional housing, work release centres, shelters and inpatient treatment centres (e.g. for sex offenders). Clark examined how many individual-level and community-level factors influenced recidivism, as well as differences in the types of housing. The results were mixed, with work-release centres associated with less recidivism, along with private residential addresses, compared with higher rates at transitional, short-term housing. Clark found that residing in a deprived neighbourhood with concentrated poverty was related to greater recidivism rates, as was going directly from prison to a homeless shelter or motel. Further, in contrast to surveillance in supported accommodation or correctional-based facilities, "offenders who reside with family and friends or independently likely do not have curfews and are probably not tested for drugs and alcohol as often" and have more social support [157; p.1391]. In all, Clark concluded that the first address, or 'Launch Pad' "could set the tenor of each offender's re-entry process… readiness for re-entry and the amount of support" (p. 1392). This suggests the importance of the pre-release planning and coordinated follow-up care across sectors to ensure appropriate housing is available upon release.

A further two studies are reported here that provided housing for people exiting prisons (rather than only referral to such housing). This occurred in the context of the other pillars of post-prison success – collaborations, pre-release planning and coordinated follow-up care. For example, the Returning Home Ohio (RHO) program was undertaken collaboratively between the Ohio prison system, Ohio Department of Rehabilitation and Correction and a community-based housing advocacy agency, the Corporation for Supportive Housing (CSH). RHO was designed to provide pre-release planning, referral and contact by a housing provider, as well as permanent post-release housing and support to reduce risks for recidivism and unstable housing. Institutional staff determined eligibility and more than 100 people participated, with CSH making the final decision to house eligible prisoners post-release.

Using a quasi-experimental design, the prospective cohort was compared with people deemed eligible but not housed, providing insights about an under-researched population of prisoners with disabilities.[158] Over the one year follow-up, there was no statistically significant difference in the proportion of participants housed from the intervention and comparison groups. For participants in the intervention group, the 'ideal' pathway into housing was identified, which meant being referred and assessed pre-prison release, connected to the CSH, released from prison, being housed and receiving supportive services. The RHO participants experienced improvements in a range of outcomes compared to those not housed, including being 40% less likely to be rearrested and 61% less likely to be reincarcerated, showing a positive pathway for those otherwise likely to be homeless. They also reported better mental health and less drug and alcohol use risks.[158] The strength of the model was the housing provision, and "matching the 'right' people to the 'right' provider… having a large network or pool of community-based providers with various experiences and histories with which correctional departments can work" (2013, p. 71).

As in the RHO, the Washington Re-entry Housing Pilot Program (RHPP) also provided housing in addition to Wraparound services, in particular for high-risk and high-need offenders leaving prison without viable housing.[159] A longitudinal, multisite outcome evaluation was conducted among 208 program participants with a comparison group (n=208) of similar offenders released with an elevated risk of homelessness who received usual care (Level III-2 evidence). The RHPP program was considered successful in significantly reducing new convictions and readmission to prison for new crimes among people who would have otherwise been homeless. They also found that younger people were at greater risk of recidivism. Analysis of the RHPP data showed it was beyond just individual motivation to change; improvements were attributed to the post-prison provision of housing and wrap-around support. The valued feature of the RHPP was "utilization of state level collaborations that capitalize on existing expertise and the power to maintain quality control throughout the process" [159; p.485]. Their data showed that periods of homelessness also significantly elevated the risk of recidivism for new convictions, revocations, and readmission to prison. Despite showing effectiveness, however, the RHPP was cut in a period of recession – although it likely cost less to implement than the target group being reincarcerated.

Release from prison to residential drug treatment

Despite people with substance use disorders and mental illness being frequently identified as most atrisk of incarceration as well as homelessness, few studies have examined their role or effectiveness in this area. In one of the few such studies, sub-groups of people in Assertive Community Treatment (ACT) programs were compared.[160] Although ACT is among the most well-studied and supported interventions for people with severe mental illness, it has rarely been studied for people who have been incarcerated. This ACT is reported here because it shows features of coordinated care and its four pillars of collaboration, pre-release planning, housing and casemanagement, as well as improvements in participant wellbeing.

As part of a larger study, a retrospective cohort study of 4756 people was undertaken comparing those with recent incarceration and those for whom it was longer ago, in 79 New York State locations. Approximately one-fifth (17%) had forensic involvement in the past six months, and 9% had been incarcerated longer than six months ago, compared with the remainder who had never been incarcerated. The group with recent incarceration was younger, with lower educational attainment, recent history of homelessness and from culturally and linguistically diverse backgrounds. The study found that rates of homelessness were greatest among this group with recent forensic experience after one year in the ACT, with 27% becoming homeless. In comparison, 17% of those out of prison longer than six months became homeless. Not surprisingly, the group who participated in ACT and had never experienced incarceration had the lowest rate of homelessness, at 9%.

However, homelessness risk was found to reduce overall, over the three years of follow-up for all groups. After the first year there were no differences in age, gender and race between the groups. The authors suggest that ACT may be appropriate for people with severe mental illness after prison release, and can contribute to housing stability, although program completion will be more challenging among those who have a history of homelessness. The authors however highlight "the need for additional strategies to improve forensic and other outcomes for this high-risk population (p. 437), and that a specifically developed Forensic ACT may prove beneficial.

People leaving hospital

Key evidence points:

- Overall, the evidence on risk factors for homelessness following hospitalisation is poor. No studies were found that explicitly measured risk factors for homelessness among people discharged from hospital; most of the literature is concerned with the high healthcare burden of homeless people and ways to reduce this.
- Conceptually, the literature suggests that early identification of homeless persons in the hospital setting and appropriate discharge planning would lessen the risk of an individual being discharged into homelessness.
- Discharge planning processes and models likely have limited utility when there are few housing and other support options available in the community.
- Although difficult to evaluate, characteristics of effective discharge planning probably include: strong partnerships with community services, integrated pathways involving expertise from both housing and health, and early referral so that there is enough time to organise community supports prior to discharge.
- Further research is needed to identify the relative effectiveness of screening tools to identify homeless individuals in the emergency department and other hospital wards; and ways to identify and engage with homeless people who are likely to leave early and therefore miss out on discharge planning.
- Medical respite services that provide step-up/step-down sub-acute healthcare in a residential setting appear to be promising interventions, especially when linked to good discharge planning practices.
- One Australian study found medical respite to be cost-effective in relation to reducing healthcare costs; however, housing outcomes were not examined.
- The only study to examine longer-term housing outcomes among medical respite patients found patients were more likely to be stably housed at 18 months compared with the control group. This study combined medical respite with housing case management and so it is unclear what the relative contribution of each component was in achieving the outcome.
- While several studies examine Aboriginal and Torres Strait Islander peoples' experiences of and access to hospitals, none have specifically investigated data on homelessness risk factors or effectiveness of interventions to prevent homelessness, or Aboriginal and Torres Strait Islander peoples' perspectives.
- Examples of gaps in the research include identification of Aboriginal and Torres Strait Islander patients, culturally-valid assessments, the role of Hospital Aboriginal Liaison Officers, comprehensive primary healthcare and Aboriginal Community-Controlled Health Services as well as priority needs and compounding historical, social, geographical and cultural safety issues.

Risk factors for homelessness among people leaving hospital

No studies were found that measured risk factors for homelessness among people discharged from hospital. Rather, the predominant focus of the literature is on identifying patients with a high cost burden to the healthcare system. Studies typically measured outcomes related to hospital use including inappropriate emergency department presentations or hospital admissions, length of stay, and re-presentations/re-admissions within a particular time frame (usually 90 days since last presentation or admission).

Conceptually, if a person is identified as homeless at the time of their emergency department presentation or hospital admission they will likely be homeless at discharge unless there is an intervention to prevent this. Rather than homelessness per se, it may be more appropriate to consider risk of discharge to a worse homelessness state; for example, loss of shelter/hostel bed or boarding house room because of an extended hospital stay and a subsequent hospital discharge to the street. A single paper (pre-2000) was found that provided expert commentary regarding a patient's risk of more severe homelessness following hospitalisation.[161; level IV-moderate] In the absence of any analysis, the authors suggest the following set of indicators:

- Unstable or insecure accommodation upon admission to hospital
- A recent history of multiple hospital admissions
- Functional disability or impairment that has been chronic or prolonged
- Financial situation unlikely to be able to support post-discharge care arrangements
- Comorbid physical and mental health conditions
- Lack of family support.

Another indicator of risk may be homeless people who leave hospital early, making it difficult for any discharge planning to occur.[162; level IV-moderate]

Table 25. Level and quality of evidence of included studies for the hospital pathway: risk factors

	Low quality	Moderate quality	High quality
Level I evidence – systematic review of prospective studies			
Level II evidence – prospective design			
Level III evidence – retrospective cohort (temporal analysis) or case-control design			
Level IV evidence – cross-sectional or case series design		Christ & Hayden 1989[161] Moran et al. 2005[162]	

Effectiveness of interventions to prevent homelessness and sustain housing among people leaving hospital

Interventions aimed at preventing homelessness following hospitalisation can be broadly grouped into two types: strategies that focus on improving discharge planning and services that provide residential-based after-care (commonly called medical respite in the international literature). Eleven publications were found, some reporting findings of evaluations, others describing the development and implementation of models in different settings. The available evidence is shown in Table 26 below.

Table 26. Level and quality of evidence of included studies for the hospital pathway: interventions

	Low quality	Moderate quality	High quality
Level 1 evidence – systematic review (qual &/or quant synthesis)			
Level 2 evidence – RCTs, quasi-experimental studies, qual comparison studies		Bauer et al. 2012[174] Hewett et al. 2016[167] Conroy et al. 2016[170]	Sadowski et al. 2009[173]
Level 3 evidence – realist reviews of complex interventions, case studies or program evaluations lacking a comparison group	Moss et al. 2002[165] Hochron & Brown 2013[168] Albanese et al. 2016[169] Pathway 2016[171] Podymow et al 2006[172]	Greysen et al. 2012[166] Homeless Link & St Mungo's 2012[164]	
Level 4 evidence – program descriptions, opinions	Best & Young 2009[163]		Moran et al. 2005[162]

Discharge planning

Although often discussed as a strategy to prevent homelessness among hospital patients, discharge planning has been rarely empirically studied. A properly designed outcome evaluation would be difficult to implement owing to the fact that "discharge planning is not readily separable from the broader program, [and] …. is not well defined or consistently implemented" [162; p.3]. There are however, other avenues of enquiry that could be undertaken, such as the efficacy of screening tools/protocols to identify patients at risk of homelessness. Before reviewing the existing evidence on the effectiveness of discharge planning in preventing homelessness, there are a couple of contingencies to note:

- Discharge planning is likely to be of limited utility in the context of a lack of appropriate housing options and support services in the community [162-164]
- Discharge planning may be constrained by health regulations and other health policies that might impinge on the way activities are conducted in the specific hospital environment.[162] Some of the studies reviewed below identified challenges in the operational fit between health and housing that impacted the effectiveness of discharge planning models.

Emergency department presentations

Only one study was found that described a discharge planning model situated in an emergency department but this did not report any housing outcomes.[165; level 3-low] The rationale was to prevent inappropriate hospital admissions from the emergency department and reduce repeat presentations among vulnerable patients (including homeless individuals). In the 12 months following implementation of the model, there was a small but significant reduction (1%; χ^2=27.7, ρ<.001) in the proportion of emergency department patients subsequently admitted to hospital. There was no change, however, in the proportion of people re-presenting to the emergency department. Although the study does not report on housing outputs or outcomes, it does demonstrate the acceptability of this type of model among Australian patients and hospital staff.

Vulnerable patients were identified using a risk screening tool developed by the Victorian Department of Human Services. Patients screening positive on the tool were then referred to the multidisciplinary Care Coordination Team (CCT) for a discharge risk assessment and coordination of post-discharge supports. For

homeless people, this included a referral to the Homeless Persons Nursing Program – during the 12-month study period 135 individuals were referred to this program. Satisfaction surveys found that emergency department staff thought the CCT usually provided quality patient care and had a positive impact on patient discharge. Patients and their carers reported the team provided a safe and effective discharge and community service providers reported the team had a positive impact on patient outcomes.

A second study was found that provided indirect evidence regarding the potential value of discharge planning. The US study asked residents of a homeless shelter about their experiences of discharge, all of whom had been discharged from an emergency department in the previous 12 months.[166; level 3-moderate] The authors argued that housing was not prioritised within the health system, and health was not prioritised within the homeless system. The homeless participants indicated safe transport and communication were integral to good discharge planning.

Hospital admissions

Three studies were found that evaluated the implementation and/or effectiveness of discharge planning for hospitalised homeless people. One of the first articulated models of discharge planning for homeless patients was the Pathways model developed in the UK. An RCT was undertaken to examine the impact of the model on housing status at hospital discharge.[167; level 2-moderate] The study found fewer participants in the intervention group were discharged to the street relative to the control group (4% vs 15%; OR=0.14). The intervention involved a full-time nurse, part-time GP and peer 'care navigators'. The nurse conducted daily visits to each hospital ward to identify homeless patients and begin a conversation about after-care (including housing). The GP attended ward rounds four times per week to discuss care plans directly with patients and also advocated on the patient's behalf for access to community-based services (e.g. priority housing or social work services) as well as for longer hospital stays when required. A critical aspect of the model was the partnerships, including a weekly multiagency meeting to discuss complex presentations. These meetings were attended by housing and homelessness staff from the community as well as health professionals from within the hospital and external treatment services (e.g. substance use treatment facilities).

Similarly, strong community partnerships and early referrals were seen as critical to the success of the Safe Transitions program, a US model staffed by nurse case managers.[168; level 3-low] Although no independent evaluation was undertaken, the authors report an increase in the detection of homeless people, which presumably allowed an appropriate response to be implemented. The authors also reported there were no discharges to the street following implementation of the model and a lessened reliance on homeless shelters and greater use of nursing homes, family homes and other settings (although these changes were not observed until the second year of implementation). For these benefits to be realised, staff training was implemented regarding the assessment of housing status (using a risk assessment tool) and this training was needed on a regular basis because of staff turnover.

The final study was a multi-site evaluation of pilot programs funded under the UK's Homeless Hospital Discharge Fund.[169; level 3-low] This evaluation found 27% of all patients served by the pilots were assisted to access permanent housing, 27% were discharged into hostel accommodation and 45% were discharged into temporary accommodation including bed and breakfast and step-down (sub-acute care) hospital beds. The majority of funded programs involved discharge planning teams (34 projects), for example housing case workers and/or nurse case managers who met with the patient while still in hospital and who liaised with community services to ensure safe discharge. The remainder of the programs provided post-discharge accommodation either alone (five projects) or in combination with a discharge planning team (13 projects). Models that employed both housing and health caseworkers, or combined discharge planning with accommodation, had apparently better outcomes because the combined expertise gave them buy-in within both systems (homelessness and health). These models also meant that support followed the patient into the community with some suggestion that this floating support improved tenancy sustainment. Across the pilot sites, greater adherence to pathways and protocols resulted in a greater number of referrals as well as earlier referrals. Overall project outcomes were undermined, however, by the short period of project funding with pilots having to be developed and established within six months. Outcomes were also impacted by the availability and choice of accommodation options within each locale, particularly for patients with significant behavioural issues and a history of tenancy problems (that had resulted in blacklisting and exclusions from social housing).

Medical respite

Medical respite provides residential short-stays for homeless people requiring a period of convalescence or monitoring and stabilisation of a health condition. Five studies of relevance were found; four of these evaluated a particular model of medical respite and one examined the characteristics of patients who left respite early, against the advice of staff.

An Australian evaluation of a sub-acute care facility for homeless persons in Sydney was recently undertaken. [170; level 2-moderate] The mixed-methods study found the model was cost-effective with respect to health outcomes but the longitudinal, quasi-experimental design did not include measures of housing stability or homelessness. Service-level data were linked to emergency department presentations and hospital separations data to examine health service utilisation in the two years preceding and following an individual's medical respite stay. A comparison group was selected from emergency department presentations recorded as having 'no fixed abode' during the same period. There was a statistically significant reduction in the frequency of presentations and hospitalisations and in length of stay for the intervention group relative to the comparison group. Over a two-year period, the saving to the hospital system was $8,275 per person; the cost benefit analysis was calculated using local hospital data only and thus did not consider the wider benefits to homeless persons and the health system more generally. Housing status at discharge from the medical respite facility was unknown for a large number of residents (34% of all episodes of care). For the remaining care episodes:

- 21% of residents were discharged to a family/friend's home while 11% were discharged to their own housing
- 18% were accommodated within the homelessness service system and 4% were accommodated in a hotel/hostel or boarding house
- 10% were referred to hospital or another health facility
- A small number were placed in aged care facilities (1%), incarcerated (<1%) or else left Australia (<1%).

The model operates as a step-up/step-down sub-acute residential facility. Individuals may be referred from the hospital or emergency department if their accommodation situation is inappropriate for convalescence or they require supervision to complete treatment (e.g. medication). Or they may be referred from community services for stabilisation of an acute or chronic health condition (including medication stabilisation for mental disorder).[2] The facility, located near St Vincent's Hospital, is staffed by non-medical residential support workers 24 hours/seven days per week. A nurse manager is available during business hours but all healthcare is provided on an outreach basis. All referrals are triaged by a clinical nurse specialist with extensive experience in the delivery of homeless healthcare. In addition to providing a safe environment for stabilisation and convalescence, staff undertake an assessment of ongoing housing and health needs and link the resident into relevant supports (including assisting with housing applications) and provide basic health education. A similar model is in operation in Melbourne (also operated by St Vincent's Health Australia) and an evaluation is currently underway.

A slightly different model was evaluated in a UK study. Pathway2Home was a partnership between an outreach 'hospital-in-the-home' service, a discharge planning service and a hostel for homeless persons.[171; level 3-low] Rather than operating out of its own facility, Pathways2Home had two dedicated beds and a treatment room in the hostel. Patients were linked into the service via the peer housing advocates from the discharge planning service. They also provided ongoing housing support during the aftercare phase. Outreach healthcare was provided by the hospital-in-the-home team. The type of patient referred for medical respite was restricted by the eligibility criteria of the hospital-in-the-home service and thus was narrower in focus than the Australian model described above. The service experienced low bed occupancy and at these times the discharge planning service was able to use them for homeless patients who did not meet the eligibility criteria. This included individuals requiring respite and recovery before moving to alternative accommodation, additional time to work on housing applications, suitable accommodation to reduce exacerbation or recurrence of a health condition, or for relapse prevention. This group of participants therefore received accommodation with case management support from the discharge planning service but no outreach medical care.

[2] The client population therefore includes not only those being discharged from hospital but also those who may have eventually presented to hospital if the deterioration in their health condition had not been stabilised. There is significant overlap between the target population and the population of interest for the present review.

The 12-month pilot identified a number of challenges. First, hospital staff had to adapt to providing oversight of healthcare for patients residing off-site. This took the full year to achieve and required substantial training and education of health professionals. Relatedly, patients requiring methadone maintenance were difficult to accommodate until a methadone policy was developed. Second, nursing staff were initially concerned about visiting the hostel alone. This was overcome by having the peer care navigators accompany the nurses on all visits until they were comfortable with the hostel environment and patient group. There was no evaluation as such; however, patient satisfaction surveys were received from eight patients (29% response rate). Most felt involved in the transition/discharge planning and most were happy with the support provided. Only four patients provided information about housing post-respite. Of these, two were referred to a housing association, one remained in the hostel but no longer received the outreach healthcare, and the fourth patient returned to the street.

A similar model was implemented in Canada where 20 beds in a homeless shelter were designated 'special care' for individuals with complex health needs [172; level 3-low]. Health visits were conducted daily by nursing staff and weekly by GPs although healthcare was available on-call 24 hours. Additionally, a care worker provided health case management (assistance with attending healthcare appointments, dispensing medications, activities of daily living) while shelter staff assisted with housing applications and transportation to appointments. No statistical analysis was undertaken, so the findings are descriptive only. Individuals were referred from the hospital (24%), homeless shelters (57%) or community housing (16%) and could stay for up to three months – substantially longer than other medical respite programs. At discharge 29% were in housing, 36.5% were transferred to a normal homeless shelter bed, 9% were transferred to hospital or a hospice, and 2% were transferred to a nursing home. A small proportion (2%) of patients was incarcerated and 8% left against medical advice.

The only study that examined housing stability prospectively was an RCT of an integrated pathway model in the US [174; level 2-high]. This model had three components: medical respite, transfer to stable housing, and ongoing case management to sustain tenancies. Two hospitals, two medical respite facilities, and 10 housing agencies were involved in the partnership. Patients had to be referred a minimum of 24 hours before discharge. Following a baseline assessment patients were randomised to the intervention (n=201) or referred back to the hospital social worker to receive the usual discharge planning services (n=206). At 18-month follow-up, and excluding participants who had died, a higher proportion of the intervention group were in stable housing compared with the control group (66% vs 11%).

The only other study of a medical respite service relevant to the question of effectiveness sought to identify characteristics of patients who left before being medically discharged on the supposition that this would be associated with poorer outcomes [174; level 2-mod]. Over a 3.5-year study period, 22% of residents became absent without leave and 9% left against medical advice. Among this combined group of patients (n=276), just 22% had completed their treatment plan compared with 77% of all other patients. Additionally, fewer patients who left early had started a housing application compared to all other patients (4% vs 29%). Characteristics of this patient group were being female (OR=1.8), younger than 50 years old (OR=1.44), living on the street before admission (OR=1.4), having no income (OR=2.0) or identification (OR=1.6), and, in the case of those who were absent without leave, having a documented substance use problem (OR=1.9).

Overall, there is consistent, moderate-level support that medical respite improves housing status at discharge but limited support that it promotes housing stability in the longer term.

People Leaving mental health facilities

Key evidence points:

- There is low agreement regarding the risk factors for homelessness among psychiatric inpatients; this is probably related to the small number of studies and large number of potential risk factors.
- Three of the four studies reviewed found a significant association between comorbid substance use problems and housing at discharge/follow-up.
- Two of the three studies that measured global functioning or clinical improvement found a significant association with improved living arrangements at discharge or follow-up.
- Homelessness at admission, being male and having a low income was identified by half of the included studies as significantly associated with homelessness post-discharge.
- Interventions to prevent homelessness among psychiatric inpatients focus on discharge planning and supported housing. Overall, there is a moderate level of support for their effectiveness.
- Five papers were found that evaluated discharge planning models; these described four different models making it difficult to synthesise findings across the studies.
- An attempt to improve discharge planning via a designated psychiatric ward and specialist psychiatrist for homeless patients failed to show any effect on either housing status at discharge or housing stability at 12-month follow-up.
- Providing housing and income support on-site in the psychiatric ward was shown to improve housing status at discharge and housing stability at follow-up, along with greater engagement in psychiatric treatment, an increased sense of personal agency and improved functional status.
- Other models that linked patients with a housing case manager prior to discharge or else provided specialist case management support post-discharge also demonstrated a reduction in homelessness.
- Supported housing models are promising interventions and two such models in Australia have demonstrated good outcomes with regard to housing stability and engagement in mental health treatment.
- Housing First, a particular type of supported housing, was developed specifically for homeless people with a mental illness; this is the most studied supported housing model and a systematic review confirmed its superior outcomes with regard to housing stability – although improvements in mental health symptoms has not been equivocally demonstrated.
- No research from Aboriginal and Torres Strait Islander peoples' perspectives about either homelessness risk factors or effectiveness of interventions for people leaving mental health facilities was included.
- Therefore, no evidence was drawn into this report about issues likely to be particularly relevant to the lives of Aboriginal and Torres Strait Islander peoples including proper identification as an Aboriginal and Torres Strait Islander person in patient records, culturally-valid assessments and healing modalities, the impact of intergenerational social disadvantage and accumulated trauma.
- Missing from the evidence therefore are insights about the role of family and community support, comprehensive primary healthcare and Aboriginal Community-Controlled Health Services.

Risk factors for homelessness among people leaving mental health facilities

The pathway to homelessness among people leaving mental health facilities is a special case of those leaving hospital. However, there is more specific evidence in relation to psychiatric wards and facilities than was reviewed above for the general hospital pathway. The evidence on risk factors for homelessness following discharge from psychiatric facility includes four peer reviewed studies. Two of the studies used a longitudinal study design to examine risk factors for homelessness post-discharge[175,176] and two used cross-sectional designs [177-178]; the study types and quality are summarised in Table 27 below. Three of the studies were from the US and one was from Switzerland. Two of the studies sampled from all psychiatric inpatients, while one focused on patients diagnosed with schizophrenia and another focused on returned service personnel. All but one study used a narrow definition of homelessness; that is, sleeping rough on the street or in a car or other improvised dwelling.

Table 27. Level and quality of evidence of included studies for the mental health pathway: risk factors

	Low quality	Moderate quality	High quality
Level I evidence – systematic review of prospective studies			
Level II evidence – prospective design	Olfson et al. 1999[176]	Compton et al. 2003[175]	
Level III evidence – retrospective cohort (temporal analysis) or case-control design			
Level IV evidence – cross-sectional or case series design		Lauber et al. 2006[178] Greenberg et al. 2006[177]	

The first longitudinal study, based in the US, examined the housing outcomes for 204 psychiatric inpatients participating in a randomised clinical trial of the effectiveness of involuntary outpatient commitment (presumed to be similar to Community Treatment Order in the Australian setting).[175; level II-moderate] Overall, 11% of participants experienced at least one episode of homelessness during the subsequent 12 months. Multivariate, repeated measures analysis (controlling for baseline homelessness) found risk of homelessness during the follow-up period was associated with being male (10-fold increase), poorer daily functioning (16-fold increase) and problematic substance use (three-fold increase). Greater perceived income, treatment compliance and outpatient service provision were found to be protective against homelessness. Participants included patients that had: a diagnosis of schizophrenia or other psychotic disorder or a major mood disorder; duration of mental disorder lasting at least one year; and a clinically significant impairment in global functioning. Follow-up assessments were completed at four, eight, and 12 months after discharge from hospital. Assessments consisted of a combination of self-report measures (homelessness, housing, income) validated instruments (social support, functioning/disability) and key informant and medical record information (substance use, treatment adherence).

The second longitudinal study similarly examined risk factors for homelessness among 316 inpatients with schizophrenia in the US.[176; level II-low] A multivariate logistic regression analysis (adjusted for age, sex and ethnicity) found risk of homelessness was significantly associated with a diagnosis of drug use disorder (OR=6.7) but not psychiatric symptom severity or global functioning. Other factors that were examined (but presumed not to be included in the final model) were homelessness before admission, medication compliance, involuntary admission, previous arrest or incarceration, alcohol use disorder and depression symptoms. This study adopted a narrow definition of homelessness for which only a small number of participants were classified as such in the short follow-up period (n=20; 8%). To be eligible for the study, participants had to be enrolled in, or eligible for, Medicaid. Participants completed a structured assessment within 72 hours of being discharged. Clinical symptoms were assessed using the Brief Psychiatric Rating Scale (BPRS) and Centre for Epidemiological Studies – Depression Scale (CES-D). Global functioning was assessed using the Global Assessment Scale (GAS) and substance use disorders were measured with the Mini-International Neuropsychiatric Interview (MINI). The participants were interviewed again after three months and completed the same assessments. Among those that had slept rough at least once during the

three-month follow-up period, the mean duration of homelessness was 27.8±26.5 days. Among this group, at the time of the follow-up assessment, three participants were sleeping rough and eight participants were staying in a homeless shelter, while four participants were residing in a private house or flat, three were in group housing, and two participants had returned to hospital.

Two cross-sectional studies examined the characteristics of patients with an immediate risk of homelessness following psychiatric hospitalisation. The first of these analysed patient variables associated with the discharge status of 28,204 admissions to psychiatric facilities in the Zurich area for the years 1996–2001.[178; level IV-moderate] The majority of patients were discharged home (66%) or referred to another institution (20.7%). A small proportion (n=269, 1%) were discharged without having permanent accommodation. Compared with the housed patients, the homeless patient group was:

- More likely to be male (OR=1.7), of younger age (OR=1.0), with lower education (OR=1.7) and residing in an urban area (OR=1.3)
- More likely to have a diagnosis of drug use disorder (OR=2.0) across multiple drug classes (OR=3.3) and to have a comorbid drug use and other mental disorder (OR 2.5)
- Less likely to experience clinical improvement during their stay (OR=0.6) and more likely to have left against medical advice or to have absconded (OR=2.4).

Within the homeless patient group, relative to men, women had a lower rate of psychotic disorders, higher rate of affective disorders, received more practical support, and were less frequently secluded but more often discharged against medical advice.

The second study examined national survey data from acute (short stay) inpatient facilities for US veterans.[177; level IV-moderate] Four types of living arrangements were considered: homelessness – defined as rough sleeping or staying in a shelter; institutional housing such as a half-way house, aged care facility or other health facility; 'doubled-up' – defined as temporary stays with family or friends; and independent housing. Three predictive models were estimated using Receiver Operating Characteristic (ROC) analysis, all of which found housing status at admission to be the best predictor of housing status at discharge. The first model examined risk factors for homelessness in the entire sample, the second model compared risk factors for institutional versus independent living and the third model compared risk factors for 'doubled-up' versus independent living. Rates of homelessness upon discharge ranged from 3% to 28%. Those at highest risk of homelessness upon discharge were those who had been homeless at hospital admission (χ^2=208.2), had an annual income of less than $706 ($\chi^2$=10.6) and whose hospital stay was in a medical or psychiatric bed as opposed to a substance use bed (χ^2=7.0 for income <$706; χ^2=10.6 for income >$706). In the second model, the factors associated with highest rate of institutionalisation were being homeless at admission (χ^2=294.7), not treated in a psychiatric bed (χ^2=36.2) and not having a pension (χ^2=6.9) or compensation (χ^2=12.5). Finally, in the third model comparing risk of being 'doubled-up' versus independent living, being 'doubled-up' at admission (χ^2=59.9), younger age (χ^2=17.9) and having a lower annual income (χ^2=14.2) were significant predictors of being 'doubled-up' at discharge.

Table 28 provides a summary of the significant factors found to be associated with housing at discharge among the studies reviewed. As the table shows, there is little agreement across the four studies. There are several issues that make it difficult to put much reliance on these findings. First, the number of studies is very small. None of the studies are of high quality, and one of the longitudinal studies was considered to be of low quality. Finally, none of the studies included a measure of family or social support, which is likely to be protective against homelessness. The relevance of these studies for the Australian setting is also questionable given the narrow definition of homelessness adopted by most of the studies and differences in the healthcare and welfare systems. Further research using prospective study design is needed.

Table 28. Summary of risk factors in relation to homelessness or housing instability for the mental health pathway

	Compton et al. 2003 Level II-moderate (n=204)	Olfson et al. 1999* Level II-low (n=263)	Lauber et al. 2006* Level IV-moderate (n=21,390)	Greenberg et al. 2006 Level IV-moderate (n=3502)
Demographic characteristics	**Male (OR 10.5)** Annual income **Sufficient income for housing (OR <0.1)**	Age Sex Ethnicity	**Male (OR 1.7)** **Younger age (OR 1.0)** **Single/separated (OR 3.2)** **Low education level (OR 1.7)** **Urban residence (OR 1.3)** Income benefit Citizenship	Age Sex Ethnicity Marital status **Annual income <$706** Pension
Physical and mental health	**Substance use problem (OR 2.5)** **Higher functional impairment (OR 16.4)**	Greater severity of psychiatric symptoms **Substance use disorder diagnosis (OR 6.1)** Higher depression scale score Higher functional impairment	Psychotic disorder Alcohol use disorder **Drug use disorder (single) (OR 2.0)** **Drug use disorder (multiple) (OR 3.3)** Mood disorder Neurotic/adjustment disorder Personality disorder Other disorder **Comorbid diagnosis (OR 2.5)** Severity of disorder **Improvement symptoms during stay (OR 0.6)**	Alcohol use disorder Drug use disorder Schizophrenia Other psychosis/affective disorder Post-traumatic stress disorder Other disorder
Social and community	Perceived social support			
Offending behaviour		History of arrest History of incarceration		
Program characteristics	**Homeless at admission** **Greater treatment compliance (OR 0.6)** **Higher outpatient service use (OR 0.2)** Voluntary vs court-ordered treatment **Severe functional impairment x court-ordered treatment at four month f/up (OR <0.1)**	Homelessness before admission Medication compliance before admission Involuntary admission	**Homeless before admission (OR 12.7)** First vs readmission Involuntary admission Compulsory medication Seclusion Type of therapy **Non-routine discharge (OR 2.4)** Treatment after discharge	**Literal homelessness at admission** 'Doubled-up' homelessness at admission Length of stay **Psychiatric bed section** Substance use bed section **Medical/surgical bed section**
System-level factors	Subsidised housing entitlement			
OUTCOME	Literal homelessness at discharge and four, eight & 12 months post-discharge	Literal homelessness at three months post-discharge	Literal homelessness at discharge	Literal homelessness, 'doubled-up', or institutionalised at discharge

NB bolded risk factors are those that were found to be significant
*Only variables that were significant in the multivariate model are bolded; not all variables were included in the multivariate model

Effectiveness of interventions to prevent homelessness and sustain housing among people leaving mental health facilities

Ten studies were identified that either described or evaluated interventions aimed at preventing homelessness among psychiatric inpatients. Most of these were focused on improving discharge planning and/or providing transition support including: an Australian case study of low quality, a quasi-experimental, low-quality study from the UK; three Canadian studies from the same research group describing a small pilot RCT and a larger quasi-experimental study; and a US RCT of moderate quality. The remaining four studies reviewed provide evidence about supported housing models for people living with a mental illness. Three of these studies are Australian, including two case studies of low-moderate quality and an expert opinion piece regarding the applicability of Housing First models in the Australian context. Table 29 summarises the level and quality of evidence found for the mental health pathway.

Table 29. Level and quality of evidence of included studies for the mental health pathway: interventions

	Low quality	Moderate quality	High quality
Level 1 evidence – systematic review (qual &/or quant synthesis)		Woodhall-Melnik & Dunn 2016[187]	
Level 2 evidence – RCTs, quasi-experimental studies, qual comparison studies	Killaspy et al. 2004[179]	Herman et al. 2011[184] Forchuck et al. 2008[180]	
Level 3 evidence – realist reviews of complex interventions, case studies or program evaluations lacking a comparison group	Forchuck et al. 2013a[181] HomeGround Services 2008[183]	Carter et al. 2008[186] Bruce et al. 2012[185]	Forchuck et al. 2013b[182]
Level 4 evidence – program descriptions, opinions			Johnson et al. 2012[189]

Discharge planning and transition support

The first study reviewed here is of a UK partnership between a community-based homeless mental health team and the four hospitals within their local catchment area. In an attempt to streamline care coordination and discharge planning between the outreach team and the 11 hospital wards, a 12-bed hospital ward at one of the four hospitals was designated for mentally ill homeless persons.[179; level 2-low] All patients admitted to this ward came under the care of a single consultant psychiatrist. When the ward became full, clients were admitted to another psychiatric ward that had a free bed, either within the same hospital or one of the other three hospitals. This situation allowed for a naturalistic case-control trial to test if patients in the designated ward would receive more carefully coordinated discharge plans resulting in greater housing stability in the year following discharge. However, the study found no difference between the two groups on either housing status at discharge or housing stability at 12 month follow-up.

Baseline data was collected from care coordinators regarding their client's housing history and length of contact with the team. Client service engagement was measured using the Homeless Engagement and Acceptance Schedule (HEAS). The Clinical Alcohol and Drug Scale (CADS) was used to determine substance misuse, and the Rating of Medication Influences (RoMI) was used to assess factors influencing compliance and non-compliance with medication. Additionally, the Manchester Scale was used to rate the participant's psychiatric symptoms at discharge. Twelve months after discharge, care coordinators repeated these rating scales and recorded details of their client's housing situations. A total of N=50 participants, were followed up, including n=29 in the intervention group and n=21 in the control group, representing a 65% response rate at baseline. Both groups were equally likely to be discharged to stable accommodation (52% case vs 67% control; X^2=1.16, df=1, *p*=.29), and 12 months after discharge cases and controls were equally likely to be residing in stable accommodation (46% case vs 57% control; X^2=0.55, df=1, *p*.46). This study had a small sample size and given that discharge planning from the non-specialist wards was already well established

before the pilot, it may not have been adequately powered to detect a difference in outcome. Moreover, risk of homelessness during the 12-month follow-up period would be increasingly influenced by factors unrelated to discharge planning such as social support networks, exposure to victimisation and trauma, and escalation of mental disorder symptoms.

A second type of intervention was evaluated by a group in Canada. The intervention involved an 'in-reach' visit from a community housing advocate and a fast-tracked process for accessing start-up funds to cover rent in the first month following discharge.[180; level 2-moderate] In the initial pilot, 14 patients with no prior history of homelessness but who, upon discharge from hospital had no housing, were randomised to either the intervention or the control group. Participants in the control group received usual care, which included referral to a social worker for housing support. This small pilot found participants in the intervention group attained independent housing before, or within two days of discharge and maintained this housing when interviewed at three and six months post-discharge. This contrasts with just one participant in the control group who attained housing.

A larger program evaluation was then conducted with some refinements to the intervention.[181; level 3-high, 4; level 3-low] Two community services were brought into the psychiatric ward – a staff member from the government department responsible for income and housing benefits and a housing advocate from a community mental health organisation. Both had direct access to the electronic databases of their respective organisations, which allowed them to initiate benefits and housing applications from the ward. Individual interviews with 66 patients and focus groups with 75 staff were undertaken. Using hospital administrative data, there was an overall reduction in the number of patients discharged to a homeless shelter during the study period (2008) relative to a pre-intervention baseline period (2002).[182] However, this was only observed for discharges from the tertiary care setting and not the acute care setting. One reason for this may have been the temporary use of a shelter while awaiting more permanent housing as analysis of the shelter data showed that the majority (93%) of the 251 patients who accessed the service were connected to either permanent or stable temporary accommodation. Overall, the intervention was well received.[181] Staff reported the intervention enabled patients to more effectively engage with their treatment because their housing situation was being taken care of. They also commented on the empowerment it provided to patients because they could access the service directly and of their own volition. It also provided staff with an opportunity to assess a patient's level of functioning, which helped with discharge planning. There were some differences in the uptake of the intervention in the tertiary care facility, where the drop-in aspect of the model did not work as well as it did in the acute ward setting. This suggests a more intensive response is required for those with chronic serious mental illness.

Regarding Australian evidence, a similar model in Victoria linked psychiatric inpatients with a specialist housing caseworker while they were still in hospital.[183; level 3-low] Forty participants were surveyed at three time points: hospital admission, discharge and then again at program exit. At the end of their support period, approximately 20% had accessed independent housing (including 7% in private rental and 13% in social housing) while another 20% had psychiatric disability supported housing (7%) or else returned to their family (13%). Although the majority of participants were classified as homeless (including 23% in supported accommodation services, 20% in transitional housing and 7% in boarding houses), there were no program exits into primary homelessness. Additionally, improved linkages to clinical mental health services were also observed at program exit.

The third type of intervention identified in the literature was an after-care support service for recently discharged, homeless psychiatric patients in the US.[184; level 2-mod] This was an RCT of Critical Time Intervention (CTI), a stepped model of care designed to strengthen a person's connection to their community supports: Phase 1, months 1–3, supports the person to implement their transition plan; Phase 2, months 4–6, focuses on developing the person's problem solving skills and Phase 3, months 7–9, focuses on transferring the care to their support network. The study found the CTI group had less homelessness at 18-month follow-up compared with the control group.

Participants were recruited from a medical respite facility following discharge from a psychiatric ward. They were eligible for the study if they had been homeless at hospital admission or within the 18 months before that current admission. Prior to randomisation, participants completed the Structured Clinical Interview for DSM-IV and a Personal History Form. They were randomly assigned by gender and diagnosis of lifetime substance use disorder, to reduce variation in key factors. Those assigned to the control group received basic discharge planning, usual psychiatric services, and referral to appropriate community services. Those assigned to the experimental group received nine months of CTI after discharge from the medical respite facility. Participants were interviewed every six weeks for a period of 18 months. A total of n=117

participants completed the 18 month follow up: n=58 in the CTI group and n=59 in the control group (reflecting a 64% retention rate).

At baseline, the majority (79%) of participants reported having experienced two or more previous episodes of homelessness, with about one-third (34%) who had a history of five or more homeless periods. Almost one-third (27%) experienced at least one episode of homelessness during the study. However, the total number of nights spent homeless was significantly less for the CTI group relative to the control group. At last follow-up, 5% of the CTI group were homeless compared with 19% of the control group. Using logistic regression and controlling for baseline homelessness and demographic characteristics, assignment to the CTI group was associated with a significant five-fold reduction in the odds of becoming homeless compared to the control group (OR=0.2). The impact of the intervention was even greater when the minimum three contacts with the patient were made prior to their discharge from medical respite (OR=0.1); demonstrating the model is most effective when fidelity is maintained.

Supported housing models for people living with a mental illness

Separate to the provision of psychiatric disability supported housing (group homes for people living with a mental illness) there has been an increasing acknowledgement of the need to support people with a mental illness to live independently. Within Australia there are several examples of health and housing partnerships that provide floating case management alongside a range of housing options, including social housing, private rental, and boarding with family. The most comprehensively evaluated supported housing model for people with a mental illness is the NSW Housing and Accommodation Support Initiative (HASI). A mixed methods evaluation of HASI found the provision of specialist housing and mental health support improved both housing and mental health outcomes.[185; level 3-moderate]

The initiative has two main outcomes – establish and sustain tenancies and reduce psychiatric hospital admissions. Four levels of support packages are provided, with higher levels targeting individuals with moderate-severe psychiatric disability while lower levels of support target those who have a higher level of functioning and are typically already established in a tenancy. More than 1000 individuals were supported by HASI from 2002 to 2010; administrative data was available for n=895 study participants. The majority of HASI participants had a primary mental disorder diagnosis of schizophrenia or schizo-affective disorder (76%) and a further 19% had a mood disorder diagnosis. Sixteen per cent of participants were referred to HASI directly from hospital, although 25% of participants had at least one psychiatric admission during the study period (covering the two years before and after a participant's referral to the program).

Among the total sample, 90% of consumers sustained their tenancy for the duration of their HASI support period. Those tenancies that ended were planned exits rather than failed tenancies (14% of all tenancies that ended). Other indicators of effectiveness with regard to housing included a low rate of rental arrears (but similar to other social housing providers), tenancy complaints (although this was evident at the higher support levels only), and problems with property maintenance. In addition to housing outcomes, HASI also demonstrated improvements in mental health as evidenced by reduced frequency of hospitalisation and shorter length of stay, and reduced symptomatology and disability as determined by validated measures of psychological distress and global functioning. These analyses were conducted as single variable, repeated measures analyses and did not include other measures that might covary or interact with these outcomes. The qualitative findings suggested a high level of acceptance and meaningfulness for client participants. The challenges identified included the usual constraint regarding the availability of affordable housing as well as some issues with continuity of support when housing changed or delays to accessing housing were experienced.

A second Australian evaluation was found of a similar model in Victoria. The Neami Community Housing Program supported 28 psychiatric inpatients to transition from long-term hospital stays to independent living.[186; level 3-moderate] The program provided floating case management, clinical supervision of mental disorder symptoms and treatment and the provision of permanent housing purchased specifically for the project. One-bedroom and two-bedroom properties were dispersed throughout the project's catchment area. At the 12-year follow-up, 14 clients remained in contact with Neami, the majority of whom were still living in the properties purchased by the program. With the exception of one client, the remaining clients had moved out of the catchment area; five had secured independent housing while the living circumstance of the other clients was unknown. There were several challenges in the implementation of this model, including matching clients appropriately to shared housing situations, ensuring housing was located in communities accepting of diversity, and negotiating shared care of clients between the clinical and non-clinical case management teams which operated from different frameworks.

Another well-known model of integrated housing and support is Housing First. This model was originally developed in the US for chronically homeless people with a serious mental illness. Housing First properties are dispersed throughout the community with case management support provided on an outreach basis and there is no requirement of clients to engage in mental health or substance use treatment. The Neami Community Housing Program just described has a number of elements that are similar to a Housing First model. A recent systematic review of the peer reviewed literature concluded there was strong and consistent evidence of the effectiveness of Housing First in reducing homelessness and increasing housing stability, particularly for homeless people with serious mental illness.[187; level 1-moderate] There was less reliable evidence of an improvement in other outcomes such as psychiatric symptoms (notwithstanding the reduction in hospital admissions that has been observed). Implementation of Housing First type models in Australia has not typically restricted itself to homeless people with a mental illness, although this group is strongly reflected in the target population.[188] For a critical discussion of the implementation of the model in the Australian context the reader is referred to an essay by Johnson and colleagues.[189; level 4-high]

People leaving social housing

Key evidence points:

- Few studies were found that directly examined the trajectories of people through social housing. Most examined characteristics of people who either left social housing prematurely or sought assistance from tenancy support services.
- Overall, there appears to be an accumulation of risk leading to either a premature exit or a poorly supported transition from social housing.
- The adequacy or appropriateness of housing was commonly reported; this may be related to the condition of the property or else related to tenancy needs not being well matched to property type (e.g. households with children, individual versus congregate living arrangements). It has been suggested that the processes by which social housing properties are allocated and transfers approved could either ameliorate or contribute to this risk factor.
- Safety concerns (either within the household or the neighbourhood) appear to be a factor in some people's decision to prematurely leave social housing.
- Financial difficulties resulting in rental arrears are a risk factor, perhaps related to poor financial management skills but also due to tenancies being established with debt (e.g. relocation costs, bond) and which are difficult to resolve on a low income. One study found this risk factor was elevated among those with a history of chronic homelessness.
- Homelessness chronicity as a risk factor also points to the potential of peer networks undermining tenancies. There is some research suggesting loneliness may contribute to the abandonment of properties when these are located some distance from established homeless peer networks and previously frequented support services. Loneliness however was not specifically examined in any of the included studies.
- Substance use and other mental health problems, including hoarding and squalor, were mentioned in a few studies but the evidence regarding these factors is equivocal.
- While relationship and family breakdown was identified as a precipitating factor in people re-entering social housing or seeking assistance from homelessness services, it is a future risk factor and unlikely to be identifiable at the point of tenancy exit.
- The evidence for the effectiveness of interventions for social housing tenants is sparse. Only four studies were found, all of which provided Level 3 (case study) evidence and two of which were considered to be low quality.
- International literature describes interventions aimed at reducing eviction risk by targeting the financial situation of tenants, despite the extant literature demonstrating that evictions are multiply caused. Only one study was found that evaluated an intervention targeting other underlying risks. This study found all at-risk tenancies were sustained among participants of a hoarding and squalor intervention; however, there was no comparison group and no post-intervention follow-up period to confirm sustainability of outcomes.
- There is indicative evidence of the effectiveness of tenancy support services however further research is required to confirm whether outcomes can be sustained.
- While a small number of non-peer reviewed reports were available, these were not from Aboriginal and Torres Strait Islander peoples' perspectives specifically.
- Particularly missing was information on the impact of historical relocation programs, quality and location of housing.
- Important factors to take into account are likely to include Aboriginal and Torres Strait Islander people's diversity across geographical locations, intergenerational structure of caregiving and family responsibilities, and medical and accessibility needs within housing. Additional valuable insights are likely to be garnered from Aboriginal and Torres Strait Islander community-controlled housing organisations, hostels and informal care arrangements.

Risk factors for homelessness among people leaving social housing

Risk of homelessness for people leaving social housing may be related to failed tenancies (i.e. evictions) as well as premature or unplanned exits that subsequently result in homelessness. Few studies were found that followed people as they transitioned from social housing to another form of housing. More often, people were retrospectively identified as 'at risk' when they presented to the homelessness service system for assistance or when they returned to social housing.

Two studies were found that examined risk factors across the entire pathway i.e. from entry into social housing through to failed tenancies and premature departures. One of these studies identified an 'at-risk' cohort at the beginning of their tenancy and followed these people over time[190] while the second took cross-sectional 'snapshots' of people at different points in the pathway.[191] The remaining studies examined risk factors associated with premature exits[192-194] or characteristics of social housing tenants seeking assistance to sustain their tenancies.[195-197]

Table 30. Level and quality of evidence of included studies for the social housing pathway: risk factors

	Low quality	Moderate quality	High quality
Level I evidence – systematic review of prospective studies			
Level II evidence – prospective design		Crane & Warnes 2007[190]	
Level III evidence – retrospective cohort (temporal analysis) or case-control design		Pawson & Munro 2010[192] AIHW 2015[195]	
Level IV evidence – cross-sectional or case series design	Newman & Samoiloff 2005[193] Jones et al. 2003[194] SHASP 2014[197] Flatau et al. 2009[196]	Wiesel et al. 2014[198]	

The single prospective study of tenancy outcomes was a UK study of n=64 older, formerly homeless people.[190; level II-moderate] Participants (aged 50+yrs, 92% male) were surveyed at the time of their referral for re-housing, immediately before being re-housed and then again at three and six months post-housing for up to two years. Participants were rehoused in a variety of settings including independent social housing (n=13), supported housing (n=13), residential care homes (n=16), and share houses or group homes (n=22); note that this sample is not entirely consistent with the definition of social housing adopted for the present review. Stepwise logistic regression analysis found three factors significantly associated with sustained tenancies at 24 months: a homeless history of five years or less, weekly contact with relatives or housed friends, and twice-weekly case manager visits in the first three months after being housed. Bivariate analysis found two factors were associated with failed tenancies at 24 months: prolonged homelessness and continuing contact with homeless peers. In contrast to previous research (and perhaps reflecting the older age of the sample), substance use or other mental disorder was not associated with tenancy outcome at 24 months. Approximately one-third (31%) of tenancies ended through eviction (n=6) or abandonment (n=11), with tenancy failures more common in the first three months and at months 16-18 after being rehoused. Almost all tenancy failures were in congregate settings (e.g. share houses or group homes). These were commonly related to problems with co-tenants in conjunction with long lead times for transfers to more appropriate housing. Therefore, among older aged tenants, key drivers of tenancy failure were the characteristics of homelessness experience as well as the adequacy or appropriateness of housing.

The single retrospective study of tenancy outcomes was a mixed method AHURI research project comprising five studies, two of which were relevant to the present research question.[191; level IV-moderate] Some of the project's findings were subsequently published in the peer reviewed literature[198] however, the evidence relevant to this review is taken from the AHURI report. The first sub-study of relevance analysed the

Household Income and Labour Dynamics Survey in Australia (HILDA) data[3] and reported the proportion of people leaving social housing in 2002 and their subsequent housing status in 2010. By 2010, 41% of the sample were residing in private rental, 30% were living in purchaser owner properties and 11% owned their properties outright while 17% had returned to social housing. Unfortunately there was no comparison of baseline characteristics for these different housing outcomes, despite these being available in the HILDA dataset. Additionally, there was no sample size reported for the re-analysis of the HILDA data undertaken for the AHURI report.

The second sub-study of relevance from this project involved in-depth interviews with tenants in their first social housing tenancy who were employed and had indicated a future intention to leave their tenancy (n=36); tenants who had returned to social housing and were thus in their second or subsequent social housing tenancy (n=21), and former tenants who had left a social housing tenancy in the past year (n=38). No details were provided about the characteristics of these participants, the duration of time since participants had left their tenancy at the time of being interviewed, or the type of analysis conducted. The findings of relevance to the present research question are those related to unsustainable exits. Common factors associated with these exits included financial stress due to loss of employment or loss of a household member who was contributing to household income (through relationship breakdown), higher rents in the private rental market, costs associated with residential moves (sometimes multiple moves in a short period of time due to inadequacy of private rental properties or rental increases), and bond loan repayments due to being ineligible for bond assistance when exiting social housing. Among the group of former tenants (n=38), two experienced homelessness subsequent to their exit from social housing; one of these unsuccessful transitions was due to poor exit planning (no accommodation to go to) and one was due to relationship breakdown/family conflict. Among the group of returning tenants (n=21), seven had experienced homelessness in the intervening period: "These appeared to be more common among participants who had abandoned public housing properties with little prior planning due to conflicts with neighbours or domestic violence" (p.46). Additionally, many of these participants had experienced transitions between social housing and homelessness more than once. The key indicators of future homelessness or housing instability based on this data would then appear to be:

1. Abrupt exits associated with poor planning, for example abandonment due to safety concerns, either because of neighbour harassment or domestic violence
2. Exits where new tenancies are established either with debt (e.g. individuals taking out bond loans to support their transition into private rental) or where their viability is heavily reliant on the contributing income of another household member. These tenancies can subsequently fail when individuals on low income are unable to repay these debts or experience a breakdown in their relationship with the financially supportive household member
3. Individuals with a history of multiple unsuccessful transitions resulting in repeated returns to social housing.

Factors associated with premature exits and evictions

One peer reviewed paper was identified that examined risk factors for premature exits. This study, undertaken in the UK, used routinely collected administrative data of social housing tenancies in Glasgow.[192 level III-moderate] Premature exits were defined as voluntary exits occurring within 12 months of the tenancy being established. The factors found to be significantly associated with premature exits in multivariate analysis included: being a household with children; residing in social housing tagged for regeneration, review or demolition; having a history of homelessness; type of housing; and younger age. This cluster of factors suggests that in addition to homelessness history, the adequacy or appropriateness of the housing may be an important driver of premature exits within the UK social housing sector.

Two conference papers were identified that reported on evictions among Australian social housing tenants. A descriptive analysis of Victorian public housing tenancies in 2000/2001 found that while rates of premature exits were similar for those provided properties via the recurring homelessness segment and the waitlist segment, the two segments appeared to differ in the factors driving these exits.[193; level IV-low] A higher proportion of the recurring homeless segment abandoned their properties or was evicted because of rental arrears, whereas the waitlist segment had a higher prevalence of moving into private rental. This suggests that financial difficulties may play a role in failed tenancies among the formerly homeless. This was also suggested by a qualitative study on Queensland social housing tenants that found tenancy failure was

[3] For methodology see https://www.melbourneinstitute.com/hilda/

associated with financial difficulties due to low income and prior debt (especially relocation costs) and mental illness resulting in problematic behaviours and reduced capacity to live independently.[194; level IV-low] This latter study culminated in a final report for the Queensland Department of Housing; however, this was unable to be located and does not appear to be in the public domain.

Characteristics of households seeking support

Three studies were found that described the characteristics of existing social housing tenants requiring support to sustain their tenancies. The first of these analysed linked specialist homelessness services (SHS) and public housing data in NSW and WA over a two-year period 2011–2013.[17; level III-moderate] A group of 7546 public housing tenants that sought tenancy support via the SHS system were identified. Of these presentations, 15% (1144 clients) had left their tenancy by the end of the study period (end Jun 2013). Compared with those whosustained their tenancies, this group was characterised by a higher proportion of persons in young-middle adulthood (i.e. aged 25–54) and with an identified need relating to substance use, other mental health problem, or legal support. This group also had a slightly higher proportion of males and single adults without children. No statistical testing was reported so it is not known which of these differences best discriminates between the two groups.

A second study described the characteristics of social housing tenants accessing a tenancy support program in Victoria.[197; level IV-low] During the three-month study period, approximately 2300 individuals were supported, with the two biggest cohorts being lone individuals (41%) and single parents (39%). The three most prevalent identified issues for clients were "financial difficulty and rental arrears" (33%) followed by "hoarding and squalor" (13%), and "mental health problems" (10%). The extent to which these can be presumed to be the underlying risk factors for tenancy breakdown is undermined by the inclusion of referral reasons in this category (such as "arrears", "establishing new tenancies", "issues with Office of Housing", "risk of eviction" and "maintenance and transfer advocacy"). This highlights the need for administrative data fields to be unambiguously defined so that contributing and precipitating factors can be clearly identified.

The third study examined support services provided to sustain at-risk tenancies among Aboriginal and Torres Strait Islanders.[196; level IV-low] Data was collected via a survey sent to agencies providing tenancy support services to Aboriginal and Torres Strait Islander peoples. In addition to the factors that drive tenancy failure among the general tenancy population, several culturally-specific barriers to tenancy sustainment were identified. These were (p.40):

- Discrimination by landlords and neighbours
- Failure of landlords and housing agencies to appropriately address cultural behaviour and imperatives (e.g. duties of hospitality, extended family responsibilities, and demand sharing)
- Lack of understanding of Aboriginal and Torres Strait Islander patterns of occupation and use of housing
- Aboriginal and Torres Strait Islander belief systems and mourning customs
- An inability to meet unforeseen expenses, such as funeral costs
- Aboriginal and Torres Strait Islander patterns of mobility.

Finally, the data linkage study referred to above[195] analysed a group of 1093 SHS clients with a previous public housing tenancy during 2011–2013. Almost half (47%) of this group were homeless at the time of their SHS presentation. More than one-third (between 35% and 40%) sought assistance within three months of exiting their public housing tenancy; approximately one-quarter sought assistance within 3–6 months, one-quarter at 6–12 months, and about 15% after 1–2 years. The reasons for presentation to SHS were financial or housing affordability (one-third) and domestic/family violence and family breakdown (one-fifth) – similar to the findings reported in the AHURI study. Overall, there was a higher proportion of females (67%) than males (33%) presenting for support and this may be associated with reasons for accessing support related to domestic/family violence and family breakdown.

Effectiveness of interventions to prevent homelessness and sustain housing among people leaving social housing

The evidence for the effectiveness of interventions for social housing tenants is sparse. No studies were found that provided Level 1 or 2 evidence. The four studies that were included for review provide level three evidence, one of which was considered to be of high quality. This is shown in Table 31 below.

Table 31. Level and quality of evidence of included studies for the social housing pathway: interventions

	Low quality	Moderate quality	High quality
Level 1 evidence – systematic review (qual &/or quant synthesis)			
Level 2 evidence – RCTs, quasi-experimental studies, qual comparison studies			
Level 3 evidence – realist reviews of complex interventions, case studies or program evaluations lacking a comparison group	Flatau et al 2009 SHASP 2014	Mission Australia 2016	Holl et al 2016
Level 4 evidence – program descriptions, opinions			

The peer reviewed evidence for interventions to prevent homelessness among social housing tenants is informed by a single systematic review paper evaluating the effectiveness of interventions to prevent housing evictions.[199] Both peer and non-peer reviewed literature were included. Seven publications were identified and four were peer-reviewed. Three of the papers examined effectiveness, including one that used randomised allocation to the intervention and two that used mixed methods (evidence levels 2-4). The other four included studies did not examine effectiveness per se, but described the number of households that were helped by the intervention. These four publications are not described here but are included in Appendix 2.

The three intervention studies differed by target population and type of intervention:

- Legal support for low-income tenants (US) was evaluated using a quasi experimental design. The outcomes of court cases relating to evictions were assessed for 268 participants randomly assigned to legal aid or full representation in court (intervention group, n=134) or no support (control group, n=134) at the time of first presentation to the Housing Court. Note, although not provided legal support through the project, 4% of the control group had their own legal representation. The number of eviction warrants was significantly lower in the intervention group than it was in the control group (24% vs 44%)
- Debt advice for social housing tenants in rent arrears (UK) comprising telephone support or face-to-face sessions which was evaluated in two ways. First, via a telephone survey of 179 tenants who received the intervention and which found 93% reported it had helped them avoid eviction. Second, via analysis of incidents of rental arrears for the 12-month period before and after the intervention for two groups – 92 tenants who received advice and 315 tenants who did not. Rental arrears were found to have decreased by 37% for the intervention group while it *increased* by 14% for the non-intervention group. Moreover, the face-to-face sessions were found to be more effective in reducing rental arrears relative to the telephone advice. Overall, the intervention was found to deliver a net cost benefit (although the costs were not reported separately for the telephone versus face-to-face modalities)
- Intensive case management (lasting up to two years) targeting anti-social behaviour to prevent evictions among families residing in community and private housing (UK). This study was of poor

quality due to the lack of a comparison group, insufficient detail on the analytical approach, and lack of data on those who dropped out of the intervention. Effectiveness was evaluated by analysing administrative data and surveying 51 case managers and 63 tenancy managers on the housing circumstances of each family. Qualitative interviews with 53 family members (representing 20 families) were also undertaken. Twenty-four family members (representing 10 families) were interviewed a second time with six of these families reporting an improvement in their housing situation. The survey found improvements in housing circumstances for approximately half of the families (as reported by case managers) whereas tenancy managers reported all but a few families had improved housing situations. Administrative records were reviewed for 56 families who received the intervention. Thirty-three families were considered to have successfully completed the intervention, 10 were considered unsuccessful and 13 had either moved or no longer met the criteria for the program (no details provided). The percentage of successful cases was higher among the families who were staying in housing provided as part of the project (83% in a residential unit and 82% in dispersed housing) than among families receiving outreach support (56%).

The authors of the review paper comment on the number of interventions aimed at reducing eviction risk by targeting the financial situation of tenants, despite the extant literature demonstrating that evictions "are caused by a complex combination of financial, social, relational and health factors" (p. 544). They conclude that although a range of eviction prevention programs exist, few of these have been robustly evaluated, resulting in inconclusive evidence of their effectiveness. The authors suggest effectiveness should be compared for short-term assistance (e.g. debt advice, legal assistance/mediation, emergency loans) and more intensive assistance (e.g. case management) including the groups of at-risk tenants most likely to benefit from these different interventions.

One Australian study that addresses this gap is an evaluation of a hoarding and squalor intervention for social housing tenants.[200] The intervention involved two components: 1) cognitive behavioural therapy group sessions for all participants plus cognitive rehabilitation sessions for participants with low cognitive functioning (as determined by neuropsychological assessment); and 2) intensive case management. Despite tenancies being variously at risk at the commencement of the program, all tenancies were sustained at program end. Additionally, linear mixed models found statistically significant improvements in personal wellbeing for younger, relative to older aged, participants and for ratings of domestic squalor, where a greater improvement was observed for females relative to males. Qualitative findings suggested increased awareness and insight among participants regarding their hoarding and squalor behaviours. Personal agency over the process and the group-based interventions were identified by participants as important in engaging in change and addressing the social isolation that is a part of hoarding and squalor. The critical components of a best-practice model identified through the evaluation included: embedding social interaction into the intervention (e.g. group format); targeting cognitive behavioural therapy sessions to those with hoarding disorder; undertaking home visits to reinforce behaviour change; client decision making and personal agency as central to the intervention; and after-care via a peer support group that could be peer-led.

Other Australian research in this area has focused on tenancy support services that aim to address the issues threatening to undermine the viability of a tenancy. These are typically housing-related and include rental arrears, nuisance complaints and antisocial behaviour, property damage or non-compliance with other aspects of the tenancy agreement. Tenancy support services also commonly address non-housing factors such as substance use and other mental health problems, and domestic or family violence. Two reports were found, one of which was peer reviewed and provides evidence regarding the meaningfulness of these types of programs for Aboriginal social tenants.

The first report is a research bulletin produced by the network of services delivering the Social Housing and Advocacy Support Program (SHASP), a Victorian Government-funded outreach case management program that provides support to public housing tenants whose tenancies are at risk and those who need help to enter into a new tenancy (SHASP Managers Network, 2014). The program was designed to address the underlying issues contributing to tenancy breakdown, with the aim of reducing homelessness and preventable exits from social housing. New tenants entering social housing with identified needs may be immediately referred to SHASP for case management support to ensure the tenancy is established well. The majority of case management support, however, is provided to existing social housing tenants where the tenancy is at risk of failing. During a three-month period additional data items were collected by SHASP providers as part of their routine administrative data. During that time 1021 households were being assisted

by SHASP across Victoria. The type of support provided was broken down into three categories: intervention (59%); liaison with other agencies (18%); and referrals and linkages (23%). At the beginning of the data collection period 387 clients (38%) owed rent in arrears. By the end of the snapshot, 73% of those tenants had either paid their rent arrears in full (15%) or had entered into a repayment agreement, with only 3% known to have been evicted. Additionally, at the end of the snapshot period, 60% of clients were able to maintain their current tenancy, 18% were still working with SHASP, and 13% did not engage. The program has previously been evaluated but the evaluation findings do not appear to be in the public domain.[182] At the time of the evaluation the SHASP included case management, short-term interventions and advocacy but since 2012 is now focused entirely on case management.

The second source of evidence regarding the effectiveness of tenancy support services comes from an AHURI report that reviewed outcomes for programs providing support to Aboriginal Australians [18]. An open-ended question was included in a survey to agencies providing tenancy support services for which the following housing and non-housing outcomes were attributed to program delivery:

- Avoidance of eviction and homelessness
- Reduction in rent arrears and tenant liabilities
- Improvement in property conditions and reduction in charges relating to property damage
- Fewer reports of disruptive behaviour
- Increased linkage to services and improved access to counselling services, referrals to mental health and substance abuse services, and financial counsellors
- Capacity building among clients
- Increased self-esteem, confidence and trust by tenants resulting in a greater capacity to engage with local community support services and community participation.

Additionally, six program components were identified as contributing to the above outcomes:

- Early intervention
- Client empowerment
- Local knowledge and trust
- Support workers
- Case management
- External support linkages.

There is indicative evidence of the effectiveness of tenancy support services; however, further research is required to confirm this, particularly the capacity of these services to reach their target population of at-risk tenants and the key components of service provision that deliver long-term housing stability.

Discussion of findings

Overall, there is a paucity of research explicitly measuring risk and protective factors for homelessness in the period during which people transition from government-funded services. The available literature typically does not use the most appropriate study design to answer questions about causality. Prospective study designs that involve multiple assessments of risk and protective factors enable a better understanding of the accrual of risk over time. This is complex modelling but important if we are to understand the combination of factors that contribute to an individual's overall level of risk. Qualitative studies using pathway approaches are also capable of providing insights into this. This may require consideration of some pathways together where one pathway transitions into another (such as the OOHC and juvenile justice pathways). It is therefore difficult to determine a reliable set of indicators that could be targeted by interventions to reduce the risk of homelessness or support people in housing. Nonetheless, a summary of the risk factors identified for each pathway is shown in Table 32 and organised according to ecological level.

Similarly, there is a lack of strong evidence for the types of interventions or models that are effective in reducing homelessness or sustaining housing for each of the pathways reviewed. Much of the research undertaken does not use RCT or other study designs that include a comparison group, making it difficult to reliably determine the effectiveness of the intervention. While RCTs may not be appropriate in all settings, studies could make use of wait-list control or other comparison groups. Alternatively, a stepped wedge cluster randomised trial could be used. In this type of design all study participants commence as part of the control group and a group of participants is randomly selected to move across to the intervention at regular intervals.[201,202] Eventually, all of the study participants move across to the intervention. Given the multiple risk factors implicated in homelessness and the fact that some of these risk factors may be well-established and enduring for an individual, a reasonable follow-up period is required to reliably demonstrate the durability of change effected by an intervention once support from that intervention has ceased.

Many of the interventions are also poorly described and specific program elements are not articulated and linked to outcomes. As noted by other reviewers[203-205], it is difficult to synthesise findings across comparative models when critical details of the intervention are neither described nor measured. This includes the level of intensity or 'dosage' of an intervention received by participants, the length of time that support was provided, the type of case management model employed within the intervention (e.g. intensive case management, assertive community treatment), and whether housing was provided directly by the intervention or accessed via usual mechanisms. Adequate description and measurement of key components of a model would also contribute to our understanding of the mechanisms or processes that need to be the target of change. Looking across the aetiological and intervention research, there perhaps needs to be greater synthesis between the factors identified as contributing to homelessness risk and the interventions aimed at ameliorating this. An ecological framework can be useful in this regard because it can identify the actions required of an intervention at each of the ecological levels.

The substantial gaps in the knowledge base along with the tendency in Australia for multiple, small pilot studies suggest there is a need to consolidate evaluation resources. The US benefits from a number of large-scale, multi-site evaluations that not only provide sufficient sample size for sophisticated analysis but also contribute evidence regarding the feasibility and meaningfulness of interventions in different communities. Pooling resources in this way may be a more strategic use of limited funds.

Table 32: Summary of homelessness risk factors identified for each transitional pathway

	Out of home care	Prison	Mental health facilities	Social housing
Demographic characteristics	Inconsistent finding of male sex Inconsistent finding of African-American ethnicity Inconsistent finding of sexual orientation Single study measured employment, no association Single study measured young parent, significant association	Inconsistent finding of male sex Inconsistent finding of African-American identity Consistent finding of younger age at release however effect size was small Single study measured employment and financial difficulties, no association found	Consistent finding of male sex, two studies of mod-high quality Consistent finding re low income, significant association Three studies, all low-quality, measured age; inconsistent finding Consistent finding re ethnicity, no association Inconsistent finding re marital status, both studies Level IV and low quality	Single study found younger age was associated with premature exits
Education and skills	Inconsistent finding re school transitions Inconsistent finding re early school leaver Single study measured academic grade, significant association	Single study measured education before, during, and after incarceration; no association found	Single study (Level IV-low) measured low education, significant association	Not measured
Trauma and victimisation	Consistent finding re sexual abuse, no association Inconsistent finding re physical abuse (severity of physical abuse may be most important) Some studies fail to measure sexual and physical abuse separately Qualitative study found child maltreatment in placement to be linked to placement breakdown	Not measured	Not measured	Single study (Level III-mod) found domestic violence was associated with premature exits

	Out of home care	Prison	Mental health facilities	Social housing
Behavioural and emotional problems Physical and mental health	Two studies measured psychiatric symptoms, emotional problems, significant association Single study measured substance use disorder, no association Single study measured mental health treatment need, no association Inconsistent finding re delinquent/behavioural problems	Single study measured continuity of substance use treatment pre- and post-discharge, no association Single study measured lifetime mental disorder diagnosis, significant association	Two studies found significant association for problematic substance use; two studies measured alcohol and drug use disorder separately (inconsistent findings, low-quality studies) Three low-quality studies measured psychiatric symptoms, no association; comorbid diagnosis was found to be significant by one study Level II high-quality study found significant association for functional impairment but not Level II low-quality study; Level IV low-quality found symptom improvement was significant	Substance use and mental health problems were not associated with housing outcomes among older, formerly homeless social housing tenants Generally not measured by most studies
Social and community	Inconsistent finding re social support (although univariate analysis unreliable) Qualitative study found secure attachments were protective while poor social networks and engagement with service system was harmful Family involvement, conflict or cohesion not measured	Single study measured sources of social support, no association found Family involvement, conflict or cohesion not measured	Single study (Level II-high) measured perceived social support, not significant Family involvement, conflict or cohesion not measured	Continuing contact with homeless peers was associated with failed tenancies while contact with relatives or housed friends and case manager visits were protective Two studies found tenancy failure was linked to co-tenant or neighbourhood problems
Offending behaviour, justice system involvement	Consistent finding re recent incarceration, no association Consistent finding for greater number of arrests/convictions, significant association	Two studies measured prior convictions (different types), inconsistent findings Two studies measured recidivism, consistent significant association	Single study (Level II-low) measured arrest and incarceration, not significant	Not measured

	Out of home care	Prison	Mental health facilities	Social housing
		Single study measured time reincarceration, non-significant		
Program characteristics	Consistent finding re greater number of care placements, possible interaction with type of placement (i.e. group care) Inconsistent finding re running away from placement Single study found younger age at entry to care, significant association Qualitative study found younger age at exit from care and lack of transition plan were important	Two studies measured offense type, inconsistent finding Consistent finding regarding time incarcerated Single study found significant association for prior shelter use No association for admission type or mental health referral pathway Single study found significant association for those released on parole	Consistent finding re homeless at admission, significant association Single study (Level II-high) found greater treatment compliance during and post-admission was significant Consistent finding re involuntary/court-ordered treatment, no association Single study (Level IV-low) measured non-routine discharge, significant association	One study found homeless history of 5+ years at entry to social housing was associated with failed tenancies Consistent finding for inappropriate housing and long lead times for transfers Single study found households established with debt or dependent on single income are associated with failed tenancies; several Level IV low-quality studies also identified financial difficulties linked to debt and rental arrears were associated with failed tenancies and use of tenancy support services Single study identified lack of understanding and accommodation of Aboriginal patterns of mobility, occupation and use of housing
Structural factors	Single study found no association for state of residence	Single study measured community crime rates and county of release and supervision, no significant association	Single study measured subsidised housing entitlement, not significant	Single study found discrimination by landlords and housing agencies contributed to failed tenancies among Aboriginal tenants
OUTCOME MEASURE	First episode homelessness Any homelessness	Shelter use post-release	Literal homelessness at discharge	Sustained vs failed tenancies

Out of home care	Prison	Mental health facilities	Social housing
Homeless service use	Number of residences in past six months	Literal homelessness at follow-up (up to 12 months)	Premature exits from social housing
Poor housing security	Two or more moves past six months	Doubled up at discharge	Tenancy support service use
Housing instability	Property inspection	Institutionalised at discharge	
Number of housing transitions			

Structural and program-level risks

Structural risk factors were rarely examined although there is much literature commenting on the lack of affordable housing as a determinant of homelessness in general. For the two youth pathways, the availability of housing was compromised by young people's lower earning capacity, even when considered in relation to the larger population of people receiving income support and lack of a tenancy history. In the context of incarceration, housing availability was constrained not just by the housing market within a particular geographic location but also with respect to conditions of parole and the supports required to minimise the likelihood of re-offending. In the hospital pathway it was acknowledged that interventions at the point of discharge are of limited utility in the context of low availability of housing and support services.

At the program-level, a lack of planning was a common determinant of poor housing outcomes. Sometimes this was the consequence of abrupt transitions driven by other risk factors such as safety concerns in social housing, running away from OOHC placements, or discharging oneself against medical advice in the hospital and mental health pathways. The literature also points to the difficulties in the implementation of transition planning even when this is recognised to be best practice (for example, in the OOHC, prison and hospital pathways). Adequate time for transition planning to take place was critical, regardless of the setting and heavily dependent on the early identification of an individual's homelessness risk. Transition planning services referred to assessment processes sometimes but few of these processes were clearly articulated or their effectiveness directly assessed. Additionally, the context or environment in which such an assessment takes place is an important consideration of effectiveness. For example, in the prison context, an individual's stated living arrangements appear to be influenced by the need to provide an address suitable to guarantee release. The role of assessment in transition planning would be an important area for future research.[206]

Continuity of care appeared to be a pivotal element missing from interventions for some of the pathways. There was substantial commentary in the literature regarding the barriers to establishing links where transitions involved moving from one sector to another. The literature reviewed points to the need for a multi-sectoral plan and coordinated strategies, sometimes involving more than one pathway (such as the case with young people aging out of care who are also involved in the juvenile justice system). In particular, interventions designed to sustain people in housing following a transition require in-reach to the pre-transition environment to ensure continuity of care. Thus cooperation from those government services to support and enable this 'bridging' is critical. Examples of this cooperation can be seen within the health system where, in some instances, community-based housing caseworkers were able to connect with patients before discharge to assist with their transition from hospital. This sometimes required a temporary stay in short-term accommodation before more stable housing could be arranged. Partnerships like these need significant investment in terms of developing staff relationships in both sectors and recognising staff sometimes need to work across very different operating environments.

Following on from this, there is a need to align the outcomes of the different government agencies within a single pathway. The term 'transition' implies a degree of integration and thus the outcome of one government agency cannot be the end point at which it transfers care to the next. Outcomes need to extend beyond this point and be a shared outcome that both agencies are working toward.

Past homelessness predicts future homelessness

Across most of the pathways, past homelessness was identified as a predictor of future homelessness, suggesting the risks associated with homelessness have not been ameliorated or addressed during the person's involvement in the government-funded service. Sometimes an association was found for chronicity of homelessness and sometimes it was observed for recency of homelessness. Chronic homelessness was sometimes observed in those with homeless peer networks. This may reflect a lack of connection to family and the effect of marginalisation and social exclusion. Recent homelessness (i.e. homelessness occurring in the year before exit) may reflect the early emergence of risk factors that carry forward into the post-transition environment.

It may not always be feasible to prevent a cross-over from a mainstream government-funded system into the specialist homelessness service system. This is particularly the case given the role that transitional housing plays in supporting people leaving care and custodial placements and the typically short time frame between admission and discharge among hospital patients. In this sense, the homelessness service system could conceivably have a role in creating stability for a person during the transition period. There was some suggestion that the uncertainty of independent living was overwhelming for some individuals. For example, one study reported young people felt overwhelmed at the idea of moving from their OOHC placement to independent living. Similarly, a study of psychiatric inpatients reported better engagement with treatment

once housing with community supports had been organised. A transition into the homelessness system then, may not necessarily be a poor outcome if it is well matched to the needs of the individual and there is a clear transition plan into more stable housing in the longer term.

Social connectedness

Few studies considered risk and protective factors related to social connectedness. These indicators could operate at the level of family, peer networks, or community. Across the different pathways, only a handful of studies measured indices in this area:

- Two studies measured social support in the pre-transition environment and found it was not related to housing status at discharge. One of these studies also measured OOHC young people's self-perceived closeness to a parent or grandparent but this association was also non-significant
- The social networks of young people who had left care were impoverished and linked to housing instability in two studies. One of these studies found former OOHC young people had poor engagement with the formal support system
- Weekly social contact with family was found to be protective among older, formerly homeless, social housing tenants
- Relationship breakdown, sometimes precipitated by violence, and often causing a loss of household income, was associated with homelessness among social housing tenants.

Taken together, the findings from these five studies indicate that a person's social network in the community is important in helping to stabilise their housing, but does not appear to be as strongly associated to future risk of homelessness when considered alongside other risk factors in the pre-transition environment. This is of course, a suggestive conclusion give the small number of studies and the range of measures used. Theoretically, a person's social network and the social support they derive from this network are thought to be conceptually distinct. Given social isolation and social support are common targets of the interventions reviewed herein (e.g. the hoarding and squalor intervention for social housing tenants), it would be helpful if measures of both constructs were considered, and measured in a consistent way, in future research.

Family is predominantly missing from this set of risk factors. Only one study measured the degree of connection or belonging to family and there were no studies that measured family conflict or the level and type of support provided by a family. While some types of support that might be expected to be provided by a family (e.g. informational or tangible support) can also be attained through other social networks, some roles of the family are difficult to replace.

Health and wellbeing

Indices of health and wellbeing were variously measured across the different pathways. It was surprising that mental health problems did not feature more strongly across the pathways given the volume of papers mentioning it as a feature of homelessness. There was simply a lack of studies where it was explicitly considered alongside other risk factors for homelessness. When measured, mental health problems intersected with other risk factors to cause homelessness. For example, mental health symptoms were found to have compromised the capacity of individuals to live independently, which in turn led to property abandonment, or else was associated with anti-social behaviour leading to an eviction. Conceivably, severity of mental disorder may also impact on vulnerability in financial decision making including the uptake of bond loans and other financial contracts. Within the hospital and mental health pathways the focus was on measures of impaired functioning (i.e. level of disability) with comorbid substance use being identified as a specific risk factor within the mental health pathway. Despite the high prevalence of mental disorder and cognitive impairment among offenders, only one study in the prison pathway included a mental health indicator. Trauma-related mental disorder was not measured in any of the studies, despite trauma exposure being highly prevalent among homeless populations in general.

Studies within the OOHC pathway were the exception. Among young people, health was conceptualised in terms of emotional and behavioural problems, including substance use and delinquency. Victimisation, including violent relationships and sexual and physical assault, was also measured as a potential risk factor by at least three studies.

In spite of the lack of consistent evidence regarding the role of mental health in determining risk of homelessness, a number of interventions could be seen as addressing this, particularly in the two youth pathways. For example, a number of the studies on mentoring made explicit reference to the importance of safety and emotional wellbeing among participants given their probable histories of trauma. Likewise, the

promising interventions identified for young offenders clearly identify emotional and behavioural problems as a primary target of these interventions. Among the adult pathways, few interventions were found that directly targeted mental health. Many interventions referred to generic case management models without specifying how mental health supports were incorporated, i.e. via in-reach or out-reach pathways. There were some exceptions to this. For example, two Australian evaluations reported positive impacts in the areas of housing and health, including reduced psychiatric hospitalisation among HASI clients and increased personal wellbeing among a hoarding and squalor intervention group.

Gaps in the evidence

There are substantial gaps in our knowledge of the risk factors for, and interventions to address, homelessness among people leaving government-funded services. In particular:

- Homelessness and housing stability, while considered important factors related to recidivism and re-hospitalisation, are not typically analysed as outcomes in their own right. The available evidence is *informative* about which risk factors tend to be shared across outcomes of recidivism/rehospitalisation and homelessness. However, without (at least) cohort studies that use multivariable modelling (or, in the case of qualitative research, draw upon a pathways framework or similar to analyse interview data), it is difficult to confirm a set of reliable indicators that might help to identify people leaving hospital or prison in most need of support.
- Given homelessness and housing instability are commonly measured in studies examining health and justice service use, a repository of such datasets would enable a re-analysis of this information with housing status as the outcome.
- While there is reasonable evidence regarding the risk factors for homelessness among young people leaving care, no evidence was found for risk factors related to homelessness among young people leaving juvenile detention. In contrast, there was limited evidence regarding efficacy of interventions across both pathways. Given the overlap between these two client populations, and the similarity in the type of interventions reviewed for both pathways, it may be pertinent to compare the effectiveness of interventions for three groups of young people – those with OOHC histories, those with juvenile justice involvement, and those with experiences in both. Future research could also identify generic and unique risk factors for each of these groups.
- Overall, there is a dearth of research that directly engages people prior to leaving government-funded services and documents their pre-transition characteristics. This includes the nature of these exits i.e. whether exits are voluntary or involuntary for those leaving OOHC or social housing, early exits or transitions that might be relevant for those leaving hospital or OOHC and the conditions placed upon release for those leaving prison or juvenile justice.
- Forthcoming research that could inform our understanding of risk factors for homelessness includes two longitudinal Australian studies of young people involved in OOHC that are currently in progress in Victoria and NSW:
    1. Beyond 18 The Longitudinal Study on leaving care being undertaken by the Australian Institute of Family Studies for the Victorian Government http://www.beyond18.com.au/about-the-study/
    2. Pathways of Care Longitudinal Study being undertaken by a consortium including NSW FACS.

  There are a number of existing longitudinal studies that could also help to inform transitions between government services, including social housing, hospitalisations and incarceration:

    - Household, Income and Labour Dynamics in Australia (HILDA) (https://www.melbourneinstitute.com/hilda/)
    - Journeys Home (http://melbourneinstitute.com/journeys_home/index.html)
- Perhaps not surprisingly (given the overall lack of good quality research), few of the included papers used regional or rural sample. Given services are limited in these areas there is a question about the generalisability of the findings for these populations.
- Contemporary western or 'mainstream' health and social sciences repositories hold only a relatively small amount of knowledge about Aboriginal people's lives; there are a limited number of Aboriginal and Torres Strait Islander-focussed research contributions to the peer-reviewed literature thus far. This is particularly in comparison to the on-ground experience in supporting people in the health and criminal justice systems. This is an important gap to fill. Findings from mainstream research can have very different implications for Aboriginal and Torres Strait Islander people because of their history of having been colonised and because of the contemporary population make-up being much younger

than the general Australian population. Additionally, racism is now well recognised as a regular experience of Aboriginal people and an important determinant of Aboriginal people's health.[207] However, no studies about racism in the out-of-home care, juvenile detention or post-prison release context have been conducted, nor the compounding effect of racism with negative labelling as offender which has elsewhere been shown to inhibit access to housing, employment and support.

Evidence trends

Given the scarcity of the literature it was a difficult task to synthesise the findings in order to generate a reliable understanding of how homelessness comes about for these six transitional populations, and how it could be best addressed. The literature is dominated by other research questions, such as reducing the cost burden associated with repeated presentations to hospital, re-incarceration or tenancy abandonment and evictions. The pathway that has been most researched is young people leaving OOHC. Here there is a greater acknowledgement of the intersection between wellbeing and home, something that is also evident within the mental health literature with its strong focus on recovery-oriented approaches. This intersection between wellbeing and home is well-understood in the lives of Aboriginal and Torres Strait Islander peoples whose sense of wellbeing reaches beyond the individual standpoint to also encompass the wellbeing of family and community members, as well as of community structures that provide support. Research into holistic, comprehensive primary healthcare provided by Aboriginal and Torres Strait Islander community-controlled health organisations (ACCHOs) shows that demand outstrips supply, and with better outcomes compared to mainstream service addressing only one aspect of health or wellbeing.

Relatedly, across the pathways there was evidence of increased contextual understanding of how risk for homelessness unfolds. System-level barriers and opportunities are being identified, helped by the growing acceptance and legitimacy of qualitative methods. The development and use of fidelity measures has also been useful in this regard, not only in contributing to the methodology of multi-site evaluations and enabling comparisons of regional and international applications of an intervention, but also in articulating the components or attributes of a model that are necessary to achieve the stated outcomes.

Following on from this, there also appears to be growing recognition of 'best practice' program evaluation. With the increasing breadth of research approaches, there is a need to combine the different types of evidence that are generated. This was the most challenging aspect of the present review. The frameworks for assessing the level of evidence and quality of a study are well developed for quantitative methods, but somewhat under-developed, or even contentious, for other methods. How does one appraise the overall level and quality of evidence within an area when there are only a handful of studies using a range of methodologies and study designs? Some researchers have argued for keeping separate the different ways of generating knowledge. We chose a different position and have attempted to equate 'apples' with 'oranges' by comparing the study design, sampling frame and analytical approach of qualitative and quantitative studies. Thus multiple qualitative interviews undertaken over time were seen as comparable to quantitative surveys involving longitudinal follow-up. The type of data collected may be different but if the study design and analytical approach enabled documentation of change over time than these approaches were rated similar in terms of the level of evidence they provided. In doing so, we tinkered with the traditional notion of bias that would normally exclude qualitative evidence. The appraisal of evidence and conclusions drawn from these are our best attempt at integrating sparse but diverse research knowledge. No doubt, debate and discussion about the best way to synthesise different sources of knowledge will continue.

Policy recommendations

Given the significant gaps in the evidence base for many of the pathways, confident recommendations about which interventions to support are difficult to make. In particular, a lack of knowledge regarding the risk factors for homelessness among the six at-risk populations hinders our ability to match the focus and intensity of an intervention to level of need. Nonetheless, Table 18 provides a summary of the evidence base for the different intervention types reviewed and makes a recommendation about whether an intervention should be supported (and where it needs to be accompanied by further research).

It is likely there are a number of interventions that are missing from Table 18. As mentioned in the preceding sections, some identified risk factors were not targeted in any of the interventions reviewed and some interventions are targeting risk factors not identified or measured by the aetiological research. For example, strategies to address placement instability among young people leaving care would appear to be a priority target for intervention while family functioning would appear to be a potential risk factor for a number of pathways.

Table 33: Summary of evidence and recommendations for interventions to prevent homelessness among people leaving government-funded services

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
OUT OF HOME CARE PATHWAY						
Extend age of leaving care	Munro et al. 2012 (mod)[44]	Deloitte Access Economics 2016 (high)[45]	Eastman et al. in press (high)[46]	Single study found housing stability more likely with extended stay; two studies suggest lower risk young people more likely to stay; economic modelling suggests it would be cost-effective	Low	Consider trial period with an evaluation – Theoretically consistent with developmental model of young adulthood – Query whether those most at risk of homelessness would benefit
Mentoring	Thompson et al. 2016 (high)[47] Purtell & Mendes 2016 (low)[48] Grossman & Rhodes 2002 (high)[53] Zimmerman et al. 2002 (mod)[54] Munson & McMillen 2006 (high)[56]	Clayden & Stein 2005 (high)[51] Osterling & Hines 2006 (mod)[52] Spencer et al. 2010 (low)[55]	Meade & Mendes 2014 (mod)[49]	Single study found formal mentoring resulted in a smoother pathway to housing but no difference in housing status per se; two studies demonstrate feasibility if formal mentors are provided adequate support; review study found overall positive relationship between natural mentoring and psychosocial outcomes among OOHC young people; duration and consistency of mentoring relationship consistently associated with positive outcomes	Insufficient	Further research required before recommendation can be made – Attributes of a good mentoring relationship have been established – Question for OOHC young people is type of mentor (natural vs formal) and appropriateness for young people with emotional and behavioural problems Include measure of involvement in mentoring in Pathways of Care Longitudinal Study

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
Independent Living Program (ILP)	Everson-Hock et al. 2011 (high)[57] Montgomery et al. 2006 (high)[59]	Kroner & Mares 2011 (mod)[60] West et al. 2013 (mod)[61] Crane et al. 2014 (mod)[62] McDowall 2008/2009 (low)[63]		The two systematic reviews concluded the available evidence was unreliable; one evaluation suggested ILP + housing most effective for young people with mental disorder; Australian evaluation demonstrated system-level impacts that increased young people's access to private rentals	Low	Worthwhile supporting with adoption of a stepped-care approach e.g. – 'short-course' type ILP before leaving care – Plus case management across transition period for low-moderate homelessness risk – Plus transitional housing for high risk
Transitional housing		Brown & Wilderson 2010 (low)[67] Senteio et al. 2009 (low)[68] Edwards 2010 (low)[69]	Galvin et al. 2010 (mod)[70] Bone & Inverarity 2016 (low)[71] Hussein & Cameron 2014 (high)[72]	Two studies found small differences in some housing measures at program end but no f/up; Australian study noted improvements in housing but lacked methodological details	Insufficient	Worthwhile supporting for young people with moderate-high risk of homelessness – Consider therapeutic model to address emotional and behavioural problems – Direct pathway from care into supported housing would provide stability while developmental age 'catches up'

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
Youth Foyer model		Levin et al. 2015 (high)[73] Grace et al. (mod)[74]	Steen & MacKenzie 2016 (low)[75]	Review concluded evidence was unreliable; observational study not specific to OOHC young people but found mental health negatively impacted housing outcomes; economic evaluation lacked rigour	Insufficient	Not promising to pursue for OOHC young people (or juvenile justice young people)
JUVENILE JUSTICE PATHWAY						
Transitional housing	Valentine et al 2015 (mod)[81]	Deakin 2013 (mod)[79]	Manno et al. 2014 (high)[39]	Single RCT found small positive effect on housing stability but participants were higher functioning than those most at risk of homelessness; an Australian observational study of a youth Foyer model found juvenile justice young people difficult to engage and no outcomes were reported	Insufficient	Research trial required for dual OOHC/juvenile justice aging out of care: – Homelessness system in partnership with child protection and juvenile justice systems given the overlap between these two risk pathways – Incorporates therapeutic component (e.g. MST or similar)
Intensive fostering	Biehal et al. 2011 (high)[84]	Caldwell & van Rybroek 2013 (mod)[87] Leve et al. 2015 (mod)[86]	Lipscombe 2003 (mod)[85]	One study measured housing outcomes and found these were not sustained after care placement; two realist reviews found effective components included the focus on family and behavioural functioning plus highly structured, multimodal treatment (housing not the focus of these reviews)	Insufficient	Further research required before recommendation can be made – Consider for dual OOHC/juvenile justice young people

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
Multisystemic Therapy (MST)	Littell et al. 2005 (high)[88] van der Stouwe et al. 2014 (high)[89]	Davis et al. 2014 (mod)[90] Mackenzie & Thielking 2013 (mod)[94]		One meta-analysis found studies were inconclusive, a later meta-analysis found MST effective in reducing recidivism but housing outcomes not considered; a small observational study of older young people found no impact on housing	Insufficient	Research trial required – Focus on juvenile justice young people being released to family of origin – Need to measure family functioning as mediating factor in risk of homelessness post-release – Need to consider pre-release component i.e. in-reach to prepare young people and family prior to returning home
Wraparound	Pullman et al. 2006 (high)[91]	Nisbet et al. 2012 (low)[93] Goldfarb 2010 (low)[72]		None of the studies measured housing outcomes; the case-control study found improvements in recidivism and emotional/behavioural problems; the small Australian pilot reported low engagement by young people; no findings yet available for The Geelong Project	Insufficient	Await findings of The Geelong Project – Require outcomes for juvenile justice-involved young people
PRISON PATHWAY						
Offender re-entry program	Duwe 2012 (mod)[125] Woods et al. 2013 (mod)[145]	Quilgars et al. 2012 (mod)[119] West et al. 2013a (mod)[141] Ross 2003 (mod)[147]	Buck et al. 2011 (low)	Two studies provided contextual evidence only and did not report housing outcomes Proportion of participants housed at study end varied for the three level 3 studies (no comparison group) The only study to include a comparison group and compare housing outcomes (Duwe 2012) found no difference in homelessness but proportion with residential stability was lower in the	Low	Worthwhile pursuing with research evaluation – In-reach and multidisciplinary team critical to model, requires partnership between the corrections and homelessness systems – Optimal timing of intervention before release is unknown (range of six weeks to three months in the studies) – Further research required to establish outcomes for different subpopulations, have a longer follow-up period, and compare to re-entry programs that include a housing component

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
				intervention group; however, this outcome measure is problematic		
Re-entry program with housing	Fontaine 2013 (mod)[158] Lutze et al. 2014 (high)[159]			Two studies well designed to answer recidivism question but provided limited evidence on housing outcomes. One study suggests scattered versus single site housing has no impact on recidivism; second study found homelessness but not residential mobility was lower in intervention group (univariate analysis only)	Insufficient	Worthwhile pursuing – Consistent with broader literature on housing access issues for prisoners – Consider targeting to those at highest risk of homelessness
Assertive community treatment (ACT)		Beach et al. 2013 (mod)		Single study found ACT was equally successful in improving housing stability among recently released prisoners, people with a prison history (not recent) and people without a prison history	Insufficient	Further research required regarding whether ACT alone or in combination with housing support is effective

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
HOSPITAL PATHWAY						
Discharge planning	Hewett et al. 2016 (mod)[167]	Greysen et al. 2012 (mod)[166] Moss et al. 2002 (low)[165] Hochron & Brown 2013 (low)[168] Albanese et al. 2016 (low)[169] Homeless Link & St Mungo's 2012 (mod)[164]	Best & Young 2009 (low)[163] Moran et al. 2005 (high)[162]	Feasibility evidence provided by two observational studies; multisite evaluation found models combining health and housing caseworkers were more effective than either alone; small RCT found intervention reduced discharge to the street	Low	Worthwhile pursuing only if integrated with housing options – Requires good assessment of homelessness risk and partnership between health and homelessness service systems – Discharge planning is highly meaningful although effect size for housing likely to be small – difficult to measure impact as embedded in broader clinical practice and constrained by availability of housing and supports in community

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
Medical respite	Sadowski et al. 2009 (high)[173] Bauer et al. 2012 (mod)[174] Conroy et al. 2016 (mod)[170]			Single RCT that combined medical respite with transitional housing found greater housing stability; an Australian economic evaluation found residential respite was cost-effective in terms of health expenditure but no analysis of housing outcomes; two observational studies of hostel-based respite identified a number of challenges with one describing housing status at discharge (but no comparison)	Low	Promising intervention requires confirmation of housing outcomes in the absence of a transitional housing component – Sustained tenancy may be unrealistic outcome; improved engagement with homelessness services and community supports to facilitate transition to permanent housing may be more reasonable
MENTAL HEALTH PATHWAY						
Discharge planning	Killaspy et al. 2004 (low)[179] Forchuck et al. 2008 (mod)[180]	Forchuck et al. 2013a (low)[181] Forchuck et al. 2013b (high)[182] HomeGround Services 2008 (low)[183]		Case-comparison study of psychiatric ward designated for homeless people found no impact on housing status at discharge (discharge planning team already in place); a small pilot RCT and larger program evaluation of housing and welfare support provided onsite in psychiatric ward found positive impacts on housing at discharge and improved engagement with psychiatric treatment alongside increased personal agency; an Australian evaluation of in-reach housing support	Low	Worthwhile supporting if integrated with housing support – Pathway to housing available via HASI means discharge planning has greater feasibility – Components of the on-site support model may already be in operation in some hospitals in NSW – consider shared protocol and streamlined data collection for monitoring

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
				found reduction in discharge to primary homelessness		
Post-discharge care	Herman et al. 2011 (mod)[184]			Single RCT of after-care support found significant reduction in risk of becoming homeless and time spent homeless over 18 months follow-up	Low	Not promising to pursue given the existence of HASI
Supported housing	Woodhall-Melnik & Dunn 2016 (mod)[187]	Carter et al. 2008 (mod)[186] Bruce et al. 2012 (mod)[185]	Johnson et al. 2012 (high)[189]	Improved housing stability and lower psychiatric hospitalisation observed in two Australian longitudinal studies	Moderate	Continue to support HASI-type model – Query re mental health support and impact on mental disorder symptoms – Need more evidence regarding access and uptake via discharge referral pathway
SOCIAL HOUSING						
Legal or financial advice		Holl et al. 2016 (high)[199]		Review paper questioned the focus of interventions on financial risk alone and concluded lack of robust studies meant evidence was inconclusive	Insufficient	Not promising to pursue as stand-alone intervention
Tenancy support services			Flatau et al. 2009 (low)[196] SHASP 2014 (low)[197]	Two descriptive studies of tenancy support services suggest positive impact on reducing premature exits	Not graded	Emerging practice for the prevention of premature exits from social housing: – Further investigation required regarding need/timing for tenants that have left social housing

	Level 1-2 studies	Level 3 studies	Level 4 studies	Findings & direction	Strength of evidence	Recommendation
						– Improved data collection/reporting would provide better data on underlying risk factors being addressed
Hoarding & squalor		Mission Australia 2016 (mod)[200]		Single small pilot found maintained housing and improved wellbeing	Low	Promising practice – Consider partnership with health for an RCT – Size of problem unknown however rationale for pilot suggests it is a significant problem in terms of repeat evictions; data on prevalence could potentially be collected through social housing tenancy managers or tenancy support services

Conclusion

This synthesis of research on risk factors for, and interventions to address, homelessness among people leaving government-funded services was difficult to undertake. This was partly related to a lack of appropriately designed studies that measured and reported on correlates of homelessness following transitions. It was also hampered by poor reporting of program details and studies that failed to include a follow-up period or a period of sufficient length to demonstrate the durability of program impacts.

Missing from the literature was evidence on disability, intergenerational trauma, policy shifts, barriers to self-determination and lack of representation on government and research decision making bodies. These are issues that Aboriginal and Torres Strait Islander leaders and peak organisations highlight as critical to take into account when considering effective interventions and developing a robust evidence base about risk and protective factors.

The limited evidence suggests program-level factors might be useful indicators for identifying people at risk of homelessness post-transition, particularly those related to transition planning. This also points to the need for higher quality research on different models of transition support services matched to intensity of need among the different cohorts. More evidence is required regarding factors associated with unplanned or abrupt transitions for which transition planning is very difficult to implement. These include emotional and behavioural problems among young people and mental disorder among adults, and safety concerns for both.

There is a growing acknowledgement of community-level factors and the intersection of these with individual-level factors. However, the measurement of community (including peer networks and family) needs to be improved across all of the pathways. This would help to target an intervention to population need, including the level of intervention required as well as the availability of an intervention.

Overall, there is a need to build the evidence base regarding the six at-risk populations that were the focus of this review. For some pathways this would require a shift from a focus on system-level efficiencies to housing and wellbeing outcomes. Greater consistency in measurement and reporting as well as improved data collection systems would also help to improve the evidence base. Finally, investment in more appropriately designed studies (and perhaps pooling resources across programs and agencies) would have a significant impact on the confidence with which recommendations could be made.

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Appendix 1: Table of included papers

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Albanese, Hurcombe & Mathie 2016 England[169]	Evaluate different types of integrated approaches to hospital discharge, among 52 pilot programs funded under "Homeless Hospital Discharge Fund" (HHDF).	Mixed-method, small-scale evaluation, assessing against patient experience, suitability, access to accommodation and level of support received, determining progress and typology of the 52 pilots.	Six typologies of services were identified: those that provided accommodation only; those that provided a project worker and accommodation; or a pathway navigator; a link worker with nursing background only; a link worker with a housing background; or link workers with nursing and housing backgrounds. The integration of nursing/clinical and housing staff, and discharge planning provided positive health and accommodation outcomes for homeless people. Communication breakdown among hospital staff contributed most to client dissatisfaction.	Canadian Homelessness Research Network (CHRN) Level 4 evidence Moderate quality program-level research	Hospital pathway Qn 2 interventions
AIHW 2015 Australia[195]	Examines transitions between social housing and the specialist homelessness system.	Linked specialist homelessness services and public housing authority data in NSW and WA for the period 1/07/2011–30/06/2013. N=18,688 housing tenants with a corresponding presentation in the SHS were identified. Descriptive analysis only.	Approx. 40% of the sample sought SHS assistance during their tenancy; of this group, 15% had exited their tenancy and appeared to have more complex needs such as substance use, mental health, and legal problems. Approx. 6% presented to SHS following a public housing tenancy. Of these, almost half were homeless at the time of seeking assistance and more than one-third sought assistance within three months of leaving their public housing tenancy.	NHMRC level III-2 evidence Moderate quality	Social housing pathway Qn 1 risk factors Non-peer reviewed report

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
AIHW 2012 Australia[27]	To quantify the extent of multiple-sector involvement of young people in Supported Accomodation Assistance Program (SAAP), juvenile justice (JJ) and child protection.	Data linkage study –SAAP, JJ supervision and child protection notifications and substantiations. Date range: 2006/07–2008/09 Two jurisdictions: Victoria and Tasmania.	Proportion of JJ sample that received SAAP support was 15% in the year before and 8% in the year following, their most recent supervision order. Proportion of CP sample that received SAAP support was 6% in the year before and 7% in the year following their most recent substantiated notification. Within one month after the end of a period of sentenced detention, 3% of periods were followed by a period of SAAP support and this increased to 9% within six months. Young women were twice as likely as young men to receive SAAP support in the month after the end of a sentenced detention period.	NHMRC level II-2 evidence Moderate quality	JJ pathway Qn 1 Risk factors Non-peer reviewed report
Atkinson 2002 Australia[107]	To explore how to heal intergenerational trauma experienced by Aboriginal people.	Used Dadirri as research methodology: deep listening with Aboriginal people.	Trauma has transgenerational effects and Aboriginal people experience ongoing trauma from dispossession from homelands, laws, identity and connections. Sensitive, non-judgemental, deep listening is required in research with Aboriginal people; current research requires reform and decolonising.	CHRN Level 4 evidence	Prison pathway Indirect supporting evidence from an Aboriginal perspective

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Baldry et al. 2003 & 2006 Australia[103,104]	Examines whether, and to what extent, former prisoner housing and associated social factors are important to post-prison release community reintegration.	339 participants from 14 prisons were interviewed prior to prison release, and again at three, six and nine months post-release (follow-up sample size varied).	Overall homelessness for participants increased from 18% (61/339) prior to incarceration to 21% post-release (49/229). At the three-month interview, those who reported that they had moved two or more times since release, were significantly more likely to be reincarcerated at the nine-month follow-up.	NHMRC Level II evidence	Prison pathway Qn 1 risk factors Primary evidence
Baldry & McCausland 2009 Australia[104]	Propose development and features of a NSW Aboriginal women-specific transitional model for reducing reincarceration.	Draws on principles of decolonisation, human rights and social justice and literature review.	Promotes the need for stable and supported post-prison release housing, which addresses Aboriginal women's context, needs and parenting roles. A decolonising, holistic framework for throughcare is required, and to reduce intersectional discrimination and exclusion.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; excellent analysis and discussion for the Australian context

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Barn & Tan 2015 UK	Explore experiences and outcomes of young people transitioning from OOHC.	Mixed methods Cross-sectional survey with n=261 former OOHC young people (duration since leaving care not reported); measures included past 30 days substance use, number of OOHC placements, homeless since leaving, etc; hierarchical regression analysis with substance use as outcome variable. In-depth interviews with 16 male and 22 female survey respondents explored after-care experiences; analysed thematically – generated two themes of risk and protective factors for substance use.	40% homeless at least once since leaving care; duration not reported. Homelessness (risk factor; *r*=.25) was significantly associated with substance use (outcome) in a multivariate regression analysis alongside other risk and protective factors.	NHMRC level IV evidence	OOHC pathway Qn 1 risk factors Peer reviewed article
Bauer et al. 2012 US[174]	To ascertain effectiveness and outcomes of a medical residential respite program which included triage, round-the-clock medical staff, team care, and social worker assessment and case management.	Retrospective cohort study using administrative data of 860 encounters of medical respite care, investigating post-hospital connections to community services, likelihood of re-hospitalisation after 90 days and risk factors.	Approximately 30% of medical respite encounters were ended early by the patient, despite 22% completing a discharge plan. Increased risk was noted among those new to respite, females, substance users and those homeless and with no income before respite. Those who left early were more likely to decline referrals to additional services and more likely to be readmitted within 90 days. Medical respite was considered an important 'bridge' to aftercare, with discharge planning critical.	NHMRC Level III-2 evidence CHRN Level 3 evidence Moderate quality	Hospital pathway Qn 1 risk factors Qn 2 interventions

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Beach et al. 2013 US[160]	Compared rates of arrest and incarceration, homelessness, psychiatric hospitalisation and discharge from assertive communities, and explored risk factors.	Retrospective cohort study including mental health records of 4756 people in assertive community treatment in New York State, divided into three groups: those with recent, remote or no history of incarceration.	Those with recent incarceration had highest risk of homelessness and early discharge from assertive community treatment; for all groups homelessness was a risk for reincarceration and problematic substance abuse.	NHMRC Level III-2 evidence CHRN level 2 evidence	Prison pathway Qn 1 risk factors Primary evidence
Beauchamp & Hollywood 2014 Australia[76]	Evaluate current research and legislation regarding OOHC young people transitioning to adulthood. Discuss implications for future policy and suggest possibilities for better outcomes.	Discussion paper including a literature review of young people after leaving care and what improves outcomes. Outlines current legislation and policy in each Australian state. Brief outline of developments in the UK and US.	Six point plan to improve outcomes for OOHC young people transitioning to adulthood in NSW. 1. Provide the option to remain in OOHC until the age of 21. 2. Develop a framework for leaving care planning. 3. Universal government services priority access. 4. A larger investment in aftercare support services, concentrating on young parents. 5. Improved accessibility to accommodation options suitable to young people transitioning from OOHC. 6. Support better processes for data collection, monitoring and evaluation.	CHRN level 4 evidence Moderate quality	OOHC pathway Qn 2 interventions (transitional housing) Non-peer reviewed report

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Biehal et al. 2011 UK[84]	Evaluation of the Multi-dimensional Treatment Foster Care (MTFC) program for young offenders.	Quasi-experimental, mixed methods study at three pilot sites. Program participants (n=23) were compared to a sample of non-program participants (n=24) matched for criminal history. The outcome variable was recidivism rather than homelessness as such.	Positive outcomes regarding recidivism were found at one year follow-up however these had dissipated by second follow-up once participants had returned to their biological families (and hence re-exposed to environmental risk factors) 56% of program participants vs 29% of comparison group were residing with parent or other relative at 1yr follow-up; 17% versus 4% were in intensive fostering placement while 9% vs 4% were in other foster placement; and 9% vs 12% were staying in supported/own accommodation; none of the program participants were sleeping rough whereas 4% of the comparison group were.	CHRN level 2 evidence High quality	JJ pathway Qn 2 interventions Peer review paper
Biehal & Wade 1999 US	Discussion of young people's transition from OOHC	Discussion drew upon the findings of a longitudinal study of young people in the first 18-24 months since leaving care. The study investigated the impact of leaving care programs in three localities.	Leaving care early e.g. 16–17 increases risk of homelessness perhaps because many of these early exits are unplanned, and crisis-driven. Significant association between high mobility during OOHC and homelessness, possibly because young people need to be settled in a placement to receive transitional programs.	Supporting evidence	OOHC pathway Qn 1 risk factors Book chapter
Bone & Inverarity 2016[71] Australia	Presents a case study of a young person supported through the Community Integration and Accommodation Options (CIAO) program.	Case study – no other details provided.	CIAO operates as a 'lead tenant' model with caseworkers providing additional support as required.	CHRN level 4 evidence Low quality	OOHC pathway Qn 2 interventions (transitional housing) Non-peer reviewed magazine article

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Borzycki 2005 Australia[133]	Gain insights into good practice implementation among post-prison release services, to prevent reincarceration.	Literature review to understand the range of theory, research and international trends; national survey with corrections departments and non-government organisations, to describe services and interventions.	Summary of theory and research Characterisation of Australian prisoners and community reintegration Description of post-prison release services Increased interest in through care and post-release services is a necessary and welcome shift beginning to occur.	CHRN Level 3 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; report to Australian Government Attorney General's Community Safety and Justice Branch
Brown & Wilderson 2010 US[67]	Compare characteristics of young people with OOHC histories accessing two transitional housing programs, one specifically for OOHC leavers and one for homeless young people.	Two transitional housing programs, one specifically targeting OOHC young people who were referred before leaving care as part of transition planning to prevent homelessness (n=145). The 2nd program targets homeless young people in general; those with a history of OOHC form the comparison group (n=146). Model – subsidised housing (scattered and congregate), life skills training, education/employment services, healthcare incl. mental health and substance use.	Compared the two groups on intake data; no statistical analysis undertaken; suggest greater placement instability and higher prevalence of group homes. Length of stay not reported. Exit type was similar for the two groups i.e. 47-48% completed, 28-33% voluntarily exit, except cases had a higher rate of termination 26% vs 18%. Reported housing situation at program exit – slightly higher proportion of comparison group had run away or were staying in a shelter (11%) relative to the case group (4%). Fewer comparison young people in private residence at exit (68% vs 85%).	CHRN level 3 evidence Low quality	OOHC pathway Qn 2 interventions (transitional housing) Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Bruce et al. 2012 Australia[185]	Evaluation of the Housing and Accommodation Support Initiative (HASI).	Interviews were conducted with 200 consumers, families/carers, and professionals between 2009–2010. Mental health scores, hospital admissions, housing and accommodation data, and consumer outcomes were all analysed quantitatively.	Among the total sample, 90% of consumers sustained their tenancy for the duration of their HASI support period. Rental arrears, tenancy complaints, and property maintenance problems were all reported at low levels. Hospitalisation, length of stay, and symptomatology and disability were also all reduced.	CHRN level 3 evidence Moderate quality	Social housing & mental health pathways Qn 2 interventions Non-peer reviewed report
Buck et al. 2011 US[150]	Evaluate 'Jail Inreach Project' healthcare based intensive case management engaging incarcerated people who have been homeless, to plan for prison release.	Demonstration project under auspices of Healthcare for the Homeless-Houston; collaborative; reviews of service-level data for 492 people.	Integrated primary healthcare and behavioural health models help people stay linked with services and reduce reincarceration post-release. Problems accessing prisoners, and undetermined release date are impediments to research, care provision and release planning.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Primary evidence, and evidence for continuity of care
Calcaterra et al. 2014 US[120]	Understand association between social stressors and relapse to substance use after prison release, use among people receiving addiction treatment.	Interviews with prisoners 1–3 weeks' pre-prison release, and between 2–9 months post-release.	Problems with family, friends and/or significant others were associated with drug use and hazardous drinking post-prison release; more than half were quickly homeless post-prison release.	NHMRC Level III-2 evidence	Prison pathway Qn 1 risk factors Primary evidence

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Caldwell & Rybroek 2013 US[87]	Examine similarities and differences among treatment programs for violent young offenders.	Case studies of four programs, underpinned by social learning theory, family and management systems theories and holistic care where individual needs and issues were seen as distinct from and impacted by broader structural issues and systems.	Similarities were described as 'striking' including having a comprehensive approach, using multi-dimensional treatment systems to work with young people and their families and continuous outcomes monitoring. Supportive staff environments such as with contingency management and rewards and training systems were recommended.	CHRN Level 3 evidence Moderate quality	JJ pathway Qn 2 interventions (supporting evidence)
Carter 2008 Australia[186]	To describe the housing and case management experiences of former psychiatric inpatients supported to live independently in the community.	Case study of 11 clients of the Neami Community Housing Program interviewed 12 years post-discharge from long-term hospital stays.	All of the clients were able to sustain their tenancies long-term. Most were still accessing support from the clinical and non-clinical case management teams.	CHRN level 3 evidence Moderate quality	Mental health pathway Qn 2 interventions Non-peer reviewed report
Christ & Hayden 1989 US[161]	Explore characteristics of people who become unexpectedly, acutely homeless during hospital stays to identify prevention strategies.	Short case studies from a social work perspective; a number of acute hospital-related combinations of factors in acute unexpected homelessness were identified.	The role of administrative discharge planning consultants were explored, with risk screening recommended to determine support needs, and significant clinical and support people involved in aftercare arrangements for wholistic team care, staff training and supports for staff morale.	NHMRC Level IV evidence CHRN level 2 evidence Moderate to low quality	Hospital pathway Qn 1 risk factors Qn 2 interventions

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Clark 2016 US[157]	Assess post-release housing and first addresses as 'Launch Pads' for recidivism or post-prison community re-entry success, as well as individual- and community-level factors.	Multilevel analysis of data on 4357 people released from prison including first address post-release and recidivism, as well as neighbourhood disadvantage and Index of Concentrated Extremes	Public or supported housing placements can result in greater surveillance and higher rates of reincarceration. Rates of rearrest were greatest among those who left prison to emergency shelters, and revocations of parole highest among those in transitional housing in urban, disadvantaged areas. Use of drug treatment centres reduced re-arrest rates.	NHMRC Level IV evidence	Prison pathway Qn 1 risk factors Primary evidence with useful data about housing although not exploring preventing homelessness as such
Clayden & Stein 2005 UK[51]	To evaluate the Prince's Trust mentoring projects for care leavers aged 16–21.	Mixed methods evaluation of n=14/20 mentoring projects Case file review – recording sheets of mentoring sessions completed by mentors, notes written by project co-ordinators (data types not uniformly recorded across the different projects) Interviews with n=17 young people (from a total of 148 across 11 projects that were approached to participate) and 12 of their mentors + 10 project coordinators/managers.	Mentoring programs varied greatly in their focus on 'task-oriented' versus 'befriending' roles of mentors. Challenges: time-limited nature of the programs; maintaining boundaries within the relationships Young people valued the informal nature of the mentoring relationship (c.f. formal relationships of child welfare workers) Did not report on housing outcomes.	CHRN level 2 evidence High quality	OOHC pathway Qn 2 interventions (mentoring) Non-peer reviewed report
Compton et al. 2003 US[175]	Examines the housing outcomes of psychiatric patients participating in a study of the effectiveness of involuntary outpatient commitment (OPC).	204 psychiatric patients were involved in a randomised clinical trial examining the effectiveness of OPC. Follow-up assessments at four, eight, and 12 months after discharge from the hospital kept track of participant homelessness, housing and income.	Overall, 11% of participants experienced at least one homelessness episode during the study year. Being male, poorer global functioning, and substance abuse increased the risk of homelessness.	NHMRC Level II evidence Moderate quality	Mental health pathway Risk factors Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Conroy et al. 2016 Australia[170]	To examine the cost-effectiveness of a sub-acute residential facility in reducing emergency department presentations and hospitalisations among people experiencing homelessness.	Longitudinal, quasi-experimental design using linked data: medical respite stays, ED presentations, hospital separations. n=315 intervention participants and n=625 comparison participants (defined as ED presentations with no fixed abode) were compared on frequency of presentations/hospitalisations and length of stay in the 2 years before and after the index presentation at the medical respite service.	Interrupted time series analysis determined the service was cost effective in reducing frequency and length of stay with respect to St Vincent's Hospital with cost savings of approx. $8000 per client over two years. Housing status at discharge: • Housing (own or family/friends) 32% • Homelessness accommodation (except street) 22% • Health facility 10% • Other 2% • Unknown 34%	CHRN level 2 evidence Moderate quality	Hospital pathway Qn 2 interventions Non-peer reviewed report (not in the public domain)

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Crane et al. 2014 Australia[25]	Questions asked included: What happens when young people leave care? What are the service support implications of this?	Qualitative study conducted in QLD and VIC (selected because they have different approaches to post-care support). Longitudinal (two interviews over a four-month period) semi-structured interviews with n=17 young people aged 19–23 years who had been homeless/at risk of homelessness; majority were female (n=22); 60% disclosed mental health issues; n=2 CALD and n=3 Indigenous; n=2 had a disability; recruited via CREATE foundation; acknowledgement of attrition but rate not reported nor the reasons for this. N=6 focus groups with n=21 young people 3x focus groups with n=21 staff and 4x individual interviews Mapping of the post-care service system Details of analytical approach not provided.	Those who had multiple foster placements had more difficulty securing stable housing post-care relative to those who had more stability in care. Child maltreatment while in-care contributed to placement breakdown and behavioural problems (e.g. running away, substance use) and leading to homelessness Transition planning was non-existent or poorly implemented and did not always involve the young person; no direct links made to homelessness post-care. Continuity with the same agency involved in the transition planning and after-care support was reported as helpful by the young people.	Qual Level IV evidence CHRN level 3 evidence Moderate quality	OOHC pathway Qn 1 risk factors Non-peer reviewed report

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Crane & Warnes 2007 UK[190]	Examines the factors associated with sustained tenancy following a period of homelessness among older adults.	Longitudinal study of n=64 older homeless people (aged 50+yrs, 92% male). Participants were surveyed at time of referral for re-housing, prior to being re-housed and then at three and six months post-housing for up to 24 months. N=13 rehoused in independent social housing, 13 in supported housing, 16 in residential care homes, and 22 in share houses or group homes (congregate housing).	Stepwise logistic regression analysis found three factors significantly associated with being housed at 24 months: homeless five yrs or less, weekly contact with relatives or housed friends, 2x weekly CM visits in first three months. Bivariate analysis showed factors associated with failed tenancies at 24 months: prolonged homelessness; continuing contact with homeless peers. Substance use or other mental disorder was not associated with tenancy outcome at 24 months. 31% of tenancies ended through eviction (n=6) or abandonment (n=11), tenancy failures most frequent in first three months and at months 16–18. Almost all tenancy failures were in congregate settings (with abandonments commonly because of problems with co-tenants in conjunction with long lead times for transfers to more appropriate housing).	NHMRC Level II evidence Moderate quality	Social housing pathway Qn 1 risk factors (premature exits) Peer reviewed publication

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Cullen et al. 2012 UK[126]	Evaluation of a cognitive skills program for 'mentally disordered offenders' to determine if participation in a Reasoning and Rehabilitation program was associated with improvements.	Multi-site RCT among 84 men in medium-secure forensic units allocated to receive treatments (n=44) or usual care (n=40).	Those who received treatment significantly improved social problem solving and cognitive skills, and changes in criminal attitudes, some of which were maintained over 12 months.	CHRN Level 2 evidence High quality	Prison pathway Qn 1 risk factors Indirect supporting evidence
Cutcher et al. 2014 Australia[99]	To investigate social outcomes of offenders with and without mental disorder	Longitudinal study of soon-to-be-released prisoners up to six months post-release (n=1324)	Housing instability (defined as two or more moves in the last six months) was higher among those with mental disorder	Level II evidence Moderate quality	

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Davis et al. 2014 US[90]	To investigate the feasibility of MST-EA.	Young people aged 17–20 years with: recent arrest or release from incarceration within past 18 months; diagnosed mental disorder; able to reside in community setting (e.g. not currently homeless). Recruited from child welfare, mental health or JJ/correctional settings. Longitudinal study – intervention baseline and then at regular intervals for 12 months 41 participants were recruited into the study; 37 completed a post-intervention survey.	No participants were homeless at baseline (eligibility criteria). One participant was homeless post-intervention.	CHRN level 2 evidence High quality	JJ pathway Qn 2 interventions Peer reviewed paper

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Deakin 2013 Australia[29]	An evaluation of a supported housing model for young people leaving juvenile justice.	Administrative data was used for juvenile justice clients (n=23), however their data was not distinguished from those coming through alternate paths. Semi-structured interviews, and focus groups, were also conducted with young people and key stakeholders; however, it is not known if any of these were with juvenile justice clients.	The findings from the evaluation suggested that the high and complex needs of young people leaving juvenile justice meant that they were unsuitable for independent living, even with case management support. A number of tenancies were reported to have failed within three months and a small number of participants remained in the program for longer than six months.	CHRN level 3 evidence Low quality	JJ pathway Qn 2 interventions Non-peer reviewed report
Deloitte Access Economics 2016 Australia[45]	Consider the potential benefits of an optional extension of OOHC in Victoria from 18–21 years.	A model to determine the economic impacts of extended care, on several life domains, based on international research, as no extended care program exists in Australia.	Under the assumed program cost and program uptake rate (25%), the benefit to cost ratio of the program is 1.84 i.e. every $1 invested in the program will have an expected return of $1.84 in either savings or increased income. The cost and benefits that accrue primarily to government; the benefit cost ratio of public spend is approximately 1.60.	CHRN level 3 evidence High quality	OOHC pathway Qn 2 intervention (transition age) Non-peer reviewed report
Duwe, 2012 US[97]	Evaluate effectiveness of Minnesota Comprehensive Offender Reentry Plan (MCORP).	Randomised experimental design – treatment group participated in MCORP compared to control group; assigned 60 days prior to release across five pilot counties, with six months of community supervision remaining on their sentence.	MCORP was effective in decreasing offending by increasing employment, access to community support programs and systems of social support.	CHRN level 2 evidence	Prison pathway Qn 2 interventions Primary evidence

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Dworsky et al. 2013 US[22]	Estimate the incidence of homelessness during the transition from foster care to adulthood and identify risk and protective factors that predict homelessness during the transition.	Used the data from a longitudinal study of 624 young people aging out of foster care in three Midwestern states, and a bounds approach.	Between 31% and 46% of the participants had been homeless at least once by age 26 years. Running away from foster carers, placement instability, being male, a history of physical abuse, engaging in delinquent behaviour, and having symptoms of a mental health disorder were associated with an increase in the risk of becoming homeless.	NHMRC level II evidence High quality	OOHC pathway Qn 1 risk factors Peer reviewed paper
Dyb 2009 Norway[98]	Examine the rates of homelessness, and factors involved, among prisoners pre- and post-incarceration.	Cross-sectional survey completed by n=299 prisoners across six prisons.	Approximately one-third of participants were homeless or living in precarious housing before incarceration, while two-thirds experienced homelessness post-release. One-third who did not face homelessness post-release had a place to live prior to incarceration Those homeless prior to incarceration were more likely to be homeless post-release.	NHMRC Level III-2	Prison pathway Qn 1 risk factors Primary evidence; discusses connections between incarceration, homelessness, recidivism and social exclusion

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Eastman et al. In press US[46]	Describe the profile of young people accepting extended OOHC placements and those who don't for the period 2003–2012.	Analysis of administrative records of all young people aged 17 or above in OOHC between 2003 and 2012. Measures: sex, ethnicity, age at entry to OOHC (first and current episodes); documented mental health diagnosis; most serious allegation for current care placement; cumulative length of time in care; placement type at age 17; placement status at 19th birthday.	Multivariate model Characteristics of young people that stayed in OOHC to 19 years: • First entered foster aged five or less • Experienced six or more placements • Longer length of time in care • Entered care due to emotional abuse • Less likely to be in congregate care setting at age 17	CHRN level 4 evidence High quality	OOHC pathway Qn 2 intervention (transition age) Peer reviewed paper
Edgar & Rickford 2009 UK	Understand needs of people with mental illness who come in contact with the criminal justice system.	Survey of independent monitoring boards	Over half the Boards frequently saw prisoners who were too ill to be in prison, with prisons lacking means to identify and assess for mental health problems or disabilities	CHRN Level 3 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence
Edwards 2010 Australia[117]	Describe the outcomes of a leaving care program for young people with a disability.	Mixed methods evaluation involving n=61 self-completed surveys and n=15 case studies of OOHC leavers with a disability. No comparison group or follow-up period; no statistical testing of survey data.	All of the case study participants were stably housed at the time of interview; 5% of the survey sample had experienced homelessness since leaving care. Positive outcomes were attributed to disability focus of the program, integration across three government departments, two-year planning and transition process and active involvement of young person in this process.	CHRN level 3 evidence Low quality	OOHC pathway Qn 2 interventions (transitional housing) Non-peer reviewed magazine article

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Evans & Porter 2015 US[137]	Determine the effect of a criminal conviction on landlord decisions to provide tenancies	Quasi-experimental audit design – real-world interactions, matching pairs of 'testers' posing as prospective tenants calling landlords, with a non-offender control group and quasi-experimental groups with different types of convictions	Criminal conviction significantly reduces landlord willingness to consider prospective tenants, particularly with child molestation conviction but landlords from less densely populated areas were less concerned, and landlords generally were more likely to consider females with a criminal conviction	NHMRC Level III-1 evidence	Prison pathway Qn 1 risk factors Indirect supporting evidence
Everson-Hock et al. 2011 US, UK[203]	To identify and synthesise evidence on effectiveness of transitional support services for young people leaving care	Systematic review. Outcomes: education, employment, substance misuse, criminal behaviour, young parenthood, housing and health. Eligibility criteria: no age limit at time of intervention; support services delivered or commenced prior to leaving care; include a comparison group e.g. usual care.	Five retrospective and two prospective cohort studies were identified. The authors conclude the evidence is unreliable	CHRN level 1 evidence High quality	OOHC pathway Qn 2 intervention (transition planning) Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Flatau et al 2009 Australia[196]	Review outcomes for programs providing tenancy support to Indigenous Australians.	A survey, which included an open-ended question, was sent to all tenancy support services in Australia.	The following housing and non-housing outcomes were attributed to program delivery: Avoidance of eviction and homelessness; reduction in rent arrears and tenant liabilities; improvement in property conditions; fewer reports of disruptive behaviour; increased linkage to services; capacity building among clients; increased self-esteem, confidence and trust by tenants. In addition to this, six program components were identified as contributing to the above outcomes: early intervention, client empowerment, local knowledge and trust, support workers, case management, and external support linkages.	NHMRC level IV evidence CHRN level 3 evidence Low quality	Social housing pathway Qn 1 risk factors Qn 2 interventions Peer reviewed report
Fontaine 2013 US[158]	Examine the impact of Returning Home Ohio, implemented by Government and a non-profit housing organisation	Quasi-experimental evaluation focussing on a prospective cohort released from the pilot prisons, compared to those eligible for the pilot but not housed; total N=244	Supportive housing through the program was associated with rearrest and reincarceration reductions one year post-release. No difference in housing outcomes between the two groups	CHRN level 2 evidence	Prison pathway Qn 2 interventions Primary evidence about ideal pathways into housing

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Forchuck et al. 2008 Canada[180]	Pilot testing of an intervention to prevent homelessness after admission to a psychiatric facility.	A randomised controlled design was used to test the two-part intervention, which used streamlined processes for obtaining housing and start-up funding for the participants (N=14). The supports were put in place before the patient was discharged (n=7), and they were compared to patients who received usual care (n=7). Participants were interviewed pre-discharge, and three- and six-months post discharge.	Those participants who received the streamlined support had independent housing prior to, or within two days of discharge and maintained housing at both follow-up interviews. Only one person in the control group attained housing, by joining the sex trade to avoid homelessness.	CHRN level 2 evidence Moderate quality	Mental health pathway Intervention Peer reviewed paper
Forchuk et al. 2013a Canada[181]	To determine whether income and housing support offered to psychiatric inpatients resulted in a reduction in the number of discharges to local homeless shelters and to estimate the cost of the intervention.	Historical case study – number of discharges to homeless shelter during the intervention study period was compared to a baseline estimate obtained six years earlier.	There was an overall reduction in the number of patients discharged to homeless shelters however this effect was observed for the tertiary care wards but not the acute wards. Additionally, no statistical testing was undertaken. Factors potentially impacting the findings include a drug and alcohol facility moving into one of the shelters (thus referrals may have been for treatment rather than accommodation) and the temporary use of shelters in the interim period before moving into permanent housing. The total monthly cost of the intervention was estimated at $3917 CDN.	CHRN level 3 evidence Low quality	Mental health pathway Qn 2 interventions Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Forchuk et al. 2013b Canada[182]	To evaluate: 1. The effects of offering income and housing support to psychiatric clients at risk of homelessness; and 2. The implementation issues related to the intervention.	Program evaluation. Individual interviews with n=66 patients; focus groups with n=75 staff.	Overall the intervention was well received with some suggestions from clients about how to improve support provided. Staff noted improvements in client engagement to treatment and their sense of independence and empowerment.	CHRN level 3 evidence High quality	Mental health pathway Qn 2 interventions Peer reviewed paper
Fowler et al. 2009 US[23]	Evaluate the prevalence and nature of housing problems among adolescents aging out of foster care.	265 adolescents aged 19–23yrs who had left foster care in 2002-03 and were subsequently surveyed three years later in 2005-06. Housing transitions were measured using a life history calendar (three-monthly intervals for the first two years post-care), psychological distress with the Brief Symptom Inventory, externalising problems with the Diagnostic Interview Schedule, and victimisation using the Physical and Sexual Victimization Scale. Number and type of foster care placements and age at entry into foster care were obtained from administrative records.	58% of participants had experienced continuously stable housing, 12% experienced increasingly stable housing, 11% experienced decreasingly stable housing, and 20% had been in continuously unstable housing situations. Housing instability was associated with emotional and behavioural problems, physical and sexual victimisation, criminal conviction, and high school dropout.	NHMRC level III-2 evidence Moderate quality	OOHC pathway Qn 1 risk factors Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Galvin et al. 2010 Australia[70]	To describe the "Live in Carer House" managed by St Luke's Anglicare.	Program description.	The model is based on a lead tenant model where a paid, live-in carer replaces the lead tenant; each house has one live-in carer and three young people. Living skills development is an embedded component of the live-in house. Young people can test their preparedness for independent living by moving into a two-bedroom unit for a couple of nights per week prior to moving out of the live-in carer house.	CHRN level 4 evidence Moderate quality	OOHC pathway Qn 2 interventions (transitional housing) Magazine article
Goldfarb 2010 US[92]	To describe recidivism outcomes for Wraparound Milwaukee participants.	Observational study of n=411 young offenders participating in the program.	Recidivism was 12% with a declining trend in proportion of participants re-offending over a 9 month period.	CHRN level 3 evidence Low quality	JJ pathway Qn 2 interventions Non-peer reviewed report

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Grace et al. 2011 Australia[74]	To explore young people's experience of the Melbourne City Mission's 'Step Ahead' program, a foyer-type model for young people who are homeless or at risk of homelessness. It includes scattered site housing + case management support and six-month after-care support.	Qualitative study involving in-depth interviews with n=28 ex-residents of Step Ahead (mean age 23yrs) and case file review (all 28 consented) using a case note analysis tool and service evaluation form (available for 17/28 clients).	Average length of stay was 1.6 years; approx. 1/3rd were terminated early due to program violations. Housing status at program exit (approx.. 1/3rd in each): • Community housing • Family & friends • Other housing (hospital, crisis accommodation, private rental and public housing) At f/up, most were stably housed; mean number of house moves was 3. Less effective for those with significant substance use and other mental health problems and relational problems.	CHRN level 3 evidence Moderate quality	OOHC pathway Qn 2 interventions (transitional housing) Non-peer reviewed report
Grace et al. 2016 Australia[138]	Assess the transferability of the Youth Foyer Model through the Australian Homelessness Prevention Project, Restart, for women exiting prison.	Analysis of program data, interviews with program staff and clients.	The need for employment to afford housing prevented elements of the Youth Foyer Model translating to adult women, including support to pursue longer term goals such as education and training. The program had limited success assisting women finding employment but demonstrated intensive support and housing assistance increased stability and reduced reoffending. Discrimination was found to restrict access to permanent housing provided by community organisations.	CHRN Level 3 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; no direct analysis of preventing post-release homelessness specifically

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Greenberg et al. 2006 US[177]	To examine characteristics that predict living situation at discharge.	Cross-sectional study. Annual national census of all patients residing in Veterans Affairs inpatient facilities for the period 1996–1999 (n=41,342).	Receiver Operating Characteristics (ROC) analysis compared the comparative risk of being discharged to one of four living situations: homelessness, 'doubled-up', institution, or independent living. Across the three models tested, least restrictive housing at admission, higher income, and receiving treatment in a psychiatric or substance use bed, was associated with better housing status at discharge.	NHMRC level IV evidence Moderate quality	Mental health pathway Qn 1 risk factors Peer reviewed paper
Greysen et al. 2012 US[166]	Understand experience and impact of coordinated transitions from hospital to shelter for homeless patients, and aspects of transitions associated with quality of care.	Mixed-methods community-based participatory research in partnership with personnel and clients. Semi-structured interviews analysed using constant-comparative method of grounded theory, and quantitative analysis to determine factors associated with poor outcomes from patients' perspectives.	Coordination is suboptimal from hospital to shelter, particularly those with acute and recent homelessness. Patients recommended improved assessment of housing status, discharge planning, communication between hospital and shelter providers, safe transportation and avoiding discharge to homelessness.	NHMRC level IV evidence CHRN level 4 evidence Moderate quality, however with innovations in sensitive, inclusive research	Hospital pathway Qn 1 risk factors - indirect Qn 2 interventions

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Grossman & Rhodes 2002 US[53]	To examine the effects of duration [of the relationship] and identify the predictors of early termination in young people mentoring relationships.	Sample consisted of 1138 young people (Mean age = 12.25) who applied to Big Brothers Big Sisters Programs in 1992 and 1993. Randomly assigned to either the treatment or control group. Completed both baseline and follow up interviews/surveys. Measures on parent relationships, scholastic competence, grades and attendance, school value, self-worth, quality and length of relationship.	Outlined the effects of duration of relationship and predictors of relationship length. Matches that terminated within three months resulted in lesser outcomes i.e. decline in self-worth, perceived scholastic competence. Those who lasted 12 months or more (45%) reported increases in most outcomes i.e. self-worth, perceived social acceptance and scholastic competence etc. as well as decrease in both alcohol and substance use. No differences in control and treatment groups. Adolescents with abusive pasts likely to have shorter relationships.	CHRN level 2 evidence High quality	OOHC pathway Qn 2 interventions (mentoring) Peer reviewed paper
Growns et al. Under review Australia[155]	Identify elements of supported accommodation programs that contribute to positive outcomes among people released from prison.	Systematic review of literature about supported accommodation programs for people released from custody.	Only nine publications met criteria set; studies were frequently at high risk of bias with few consistent findings emerging about effectiveness of accommodation programs or program characteristics	CHRN Level I evidence	Prison pathway Qn 2 interventions Primary evidence; focus on securing housing

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Haswell et al. 2014 Australia[124]	Process evaluation of Returning Home support programs for Aboriginal and Torres Strait Islander women exiting prison.	Case studies and cross-case analysis of programs in three diverse sites including interviews and reviews of service level data, and literature review. Use of Ngaa-bi-nya Aboriginal-designed evaluation framework.	Program and structural-level factors hampered opportunities for success; when one site overcame these they could much more readily provide individualised support including connections to further supports and community ties; Aboriginal leadership in program design and delivery was considered critical.	CHRN Level 3 evidence	Prison pathway Qn 2 interventions Primary evidence, although not focused on homelessness as such and little outcomes data available, but one of the only Aboriginal and Torres Strait Islander-specific programs
Herman et al. 2011 US[184]	Evaluation of a nine-month Critical Time Intervention (CTI) to reduce the risk of homelessness after discharge from a mental health facility.	RCT: N=150 recently discharged psychiatric patients were recruited from a medical respite facility and assigned to either the experimental group (n=77) or the control group (n=73). Participants completed an interview before they were discharged and then a follow-up interview every six weeks for 18 months.	N=117 participants were included in the analysis. The CTI group had significantly reduced odds of experiencing homelessness compared to the control group. Those in the CTI group also spent significantly fewer days homeless, during the study period, compared with the control group. Homelessness was not defined.	CHRN level 2 evidence Moderate quality	Mental health pathway Qn 2 interventions Peer reviewed paper
Hewett et al. 2016 UK[167]	Understand impact of GP-led in-hospital management and pathways for homeless people.	RCT with inpatient homeless adults randomly allocated to standard hospital-based clinical care, or enhanced care with input from a homeless care team. Hospital data were used, as well as questionnaires to assess quality of life.	Length of hospital stay did not differ between the two groups. After discharge, those with enhanced care re-attended the emergency department less at 4.8 visits per year and 5.8 for standard care. This difference was not significant but quality of life improved significantly among those with enhanced care, and with much fewer people receiving enhanced care sleeping on the streets.	NHMRC Level II evidence CHRN level 2 evidence	Hospital pathway Qn 1 risk factors Qn 2 interventions A focussed, context-specific study with clear outcomes

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Hochron & Brown 2013 US[168]	Track the process and understand effects of the 'Safe Transitions' hospital discharge initiative where post-hospital placements are found for all patients known to have experienced homelessness. The initiative involved two staff collaborating with hospital staff, accommodation/shelter operators, primary care providers and nurse case management, in order to improve housing stability and reduce hospital re-entries.	A collaborative approach to Safe Transitions was tracked across the county, hospitals and community-based shelter/nursing home providers. Marked increases were seen in enrolments in health insurance. Program-level data gathered showed more capacity to identify patients who had been homeless, with a reduced reliance on shelter placements and increase in placements to nursing homes and family care. No patients were discharged to the street over the one year period. Challenges included frequent hospital staff turnover, spontaneous requests for care with limited bed availability, patients without health insurance, and pressure to discharge patients in times of low staffing.	Relationships and partnerships were key to program success. Capable staff and dedicated funds are required to sustain programs, along with collaborations. Further analysis of outcomes is needed to bolster the case for longer-term program sustainability and transferability to other settings but was considered potentially useful for prison and inpatient mental health facilities.	NHMRC level IV evidence CHRN level 4 evidence Moderate quality, although program specific.	Hospital pathway Qn 1 risk factors Qn 2 interventions Brief commentary
Holl et al. 2016 Netherlands[199]	A systematic review of studies that evaluate the effectiveness of interventions to prevent housing evictions.	Seven publications were found, both peer and non-peer reviewed. Three papers examined effectiveness, while the other four described the number of households that were helped.	From the three effectiveness studies legal support, debt advice, and intensive case management for anti-social behaviour were all examined. All interventions had some positive effects reported, though at least one of the studies was methodologically weak and lacked details in some areas. The review author noted that better evaluation is needed for these interventions	CHRN level 3 evidence High quality	Social housing pathway Qn 2 interventions Peer reviewed publication

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
HomeGround Services 2008 Australia[183]	To review outcomes for clients participating in the Housing/Mental Health Pathways Program.	Program evaluation involving an analysis of administrative data for the period 09/2005-09/2006 and interviews with 40 clients.	Overall there was a reduction in the use of inappropriate housing although still a heavy reliance on transitional housing and supported accommodation – 20% of clients were in independent housing, 20% had transitional housing, 7% were in psychiatric disability supported housing, 13% were living with family, and 23% were in supported accommodation services. The majority of clients were engaged with community mental health teams (of various descriptions).	CHRN level 3 evidence Low quality	Mental health pathway Qn 2 intervention Non-peer reviewed report
Howerton et al. 2009 UK[135]	Research designed in partnership with community support service, focussing on views about what would help or hinder community life post-release.	35 in-depth interviews with males pre-release and 54% reinterviewed six weeks post-release.	One quarter were identified as suicidal pre-release, most had prior incarceration and ongoing risks, with anxiety and pessimism about 'breaking the cycle' of incarceration. The researchers suggest the need for strengths-based and intensive services for the range of issues they experienced.	NHMRC Level IV evidence	Prison pathway Qn 1 risk factors Indirect supporting evidence
Human Rights and Equal Opportunity Commission 2007 Australia[108]	Annual report on the work of Commissioners and staff defending human rights at fundamental levels.	Report of significant achievements across human rights matters.	45 recommendations including about achieving health equity for Aboriginal and Torres Strait Islander Australians.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; important to inform lens for assessing evidence; leadership statements about direction for policy.

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Hussein & Cameron 2014 Australia[72]	Description of the Lighthouse Foundations' Therapeutic Model of Care (TMC) – a residential program for OOHC leavers or homeless young people with a history of child maltreatment.	Program description only.	Average program duration is 18 months; aftercare is provided on an outreach basis following transition During 2012-13, 13 young people transitioned from the program – seven moved to independent living, three moved in with family, one moved to a supported accommodation service, and one was exited due to program non-compliance.	CHRN level 4 evidence High quality	OOHC pathway Qn 2 interventions (transitional housing) Peer reviewed paper
Indig et al. 2016 Australia[77]	To describe the predictors and correlates of previous incarceration and re-incarceration among young offenders in NSW.	Longitudinal study, based on 2009 Young People in Custody Health Survey – n=361 from 9 juvenile justice/correctional centres – f/up surveys occurred at three, six and 12 months post-baseline. This paper includes the 319 participants released from custody during the 18-month study period.	Backwards stepwise logistic regression was used to determine risk factors for recidivism. Neither unstable housing prior to custody nor accommodation problems post-release was associated with recidivism. 35% of the total sample had a history of unstable housing pre-custody and 10% experienced accommodation difficulties post-release.	NHMRC level II evidence High quality	JJ pathway Qn 1 risk factors Peer reviewed paper
Jardine & Whyte 2013 UK[143]	Scrutinise use of social return on investment (SROI) for accountability and evidence of effectiveness among third sector/voluntary organisations.	Draws on evaluation of the Routes out of Prison Project, a peer support project; case study.	SROI challenges funders and agencies to establish program logic and collect quality routine data which helps with planning, priority setting, communication and measurement although few examples are yet available in the corrections context	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; social return on investment

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Johnson et al. 2012 Australia[189]	Undertake a critical analysis of implementing a Housing First program in Australia. Housing First has a long history in the US, to provide rapid access to permanent supported housing. Housing First is underpinned by recognition of housing as a human right and not to be contingent on anything other than meeting tenancy obligations.	Critical analysis, including literature and policy review.	The authors suggest a Housing First approach is relevant to the Australian context and has much to offer for people who are chronically homeless and with complex needs. The authors reiterate the relevance and importance of Housing First's principles of housing as a human right, and argue that constraints to the provision of housing in Australian must be addressed, in part by system-wide principles and policies enabling improvements to housing programs as well as support programs.	CHRN Level 4 evidence	Social housing pathway Qn 2 interventions AHURI Essay
Jones et al. 2003 Australia[194]	Describe a model of risk for tenancy failure and relationships between risk factors and interventions.	Conceptual paper drawing on findings from qualitative research with housing providers.	Tenancy failure was associated with financial difficulties due to: 1) low income and prior debt; and 2) mental illness resulting in problematic behaviour and low functioning.	NHMRC level III evidence Low quality	Social housing pathway Qn 1 risk factors Conference paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Killaspy et al. 2004 UK[179]	Assess the effectiveness of a dedicated 12-bed inpatient ward for people experiencing homelessness and severe mental illness.	Quasi experimental study. N=50 psychiatric inpatients who were homeless, admitted either to a homeless designated ward (n=29) or when that was full, any one of eleven wards that had a spare bed at the time (n=21). Care coordinators rated clients' level of engagement, substance misuse and medication compliance at discharge and 12-month f/up, along with housing status.	Both groups were equally likely to be discharged to stable accommodation, and at follow-up both groups were also equally likely to be living in stable accommodation.	CHRN level 2 evidence Low quality	Mental health pathway Qn 2 interventions Peer reviewed paper
Kinner 2006 Australia[121]	Describe the health and socioeconomic status of recently released prisoners, and to identify predictors of re-incarceration.	PREP-Q longitudinal study of 160 adults released from Queensland prisons, interviewed prior to release, and twice post-release.	19% of males and 15% of females had no arrangements for housing before leaving prison; 44% of males and 33% of females had no arrangements for income post-release. No analysis of factors associated with these outcomes.	NHMRC Level III-3 evidence	Prison pathway Qn 1 risk factors Primary evidence
Kras et al. 2016 US[139]	Better understand sex offenders' pathways in and out of a transitional housing facility.	Part of a larger study which gathered 98 qualitative interviews in two urban areas; 30 were used here.	Sex offenders face additional challenges post-prison release that limit housing options including legal and residency restrictions; the need for state-run housing is critical.	NHMRC level IV evidence	Prison pathway Qn 2 interventions Indirect supporting evidence

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Kroner & Mares 2011 US[60]	Evaluate the choice of housing option and the change in level of care among young adults at discharge from a housing-based ILP.	Retrospective analysis of administrative data and client records of 367 young adults discharged from the program during 2001–2006.	The majority of young people entered the program from a supervised setting (e.g. JJ, OOHC) and exited into independent living at the end of the program; only 11% exited the program to a higher level of care. Although the majority of young people had a diagnosed mental disorder at exit none exited into a psychiatric facility suggesting the program is effective for young people with mental health problems.	CHRN level 3 evidence Moderate quality	OOHC pathway Qn 2 interventions (transition planning) Peer reviewed paper
Lauber et al. 2006 Switzerland[178]	Understand which patients discharged from psychiatric facilities are more likely to become homeless post-discharge.	The records of all 28,204 people who were admitted to a psychiatric facility in the Zurich area of Switzerland from 1996-2001 were examined.	Only 1% (n=269) of patients were discharged without having permanent accommodation. There were several differences between those who were discharged homeless and those who were discharged housed, including being male, of a younger age, having lower education, receiving income benefits, etc.	NHMRC level IV evidence Moderate quality	Mental health pathway Qn 1 risk factors Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Leve et al. 2015 US[86]	Summarise the predictors of JJ involvement for females. Examine previous research of JJ interventions tested on females.	Risk factors split into three areas; (i) family characteristics, (ii) contextual factors and (iii) individual characteristics. Literature review of RCT of interventions on JJ young people tested on females.	Identified common targets for current intervention. Family context is important for females. Similarly, peer context is prominent as both a protective and risk factor for JJ females, usually picking males as their closest friend or partner. More vulnerable to comorbidity and likely to participate in risky sexual behaviour than males. Females underrepresented in RCT's. Four key features relevant to female protective and risk factors (i) family based interventions (ii) targeted intervention (iii) behavioural interventions should be included (iv) community-based implementations and monitoring commitment to intervention. Insufficient evidence for sex-specific services.	CHRN level 3 evidence Moderate quality	JJ pathway Qn 2 interventions Peer reviewed paper
Levin et al. 2015 Australia[73]	Assess the quality of studies examining the effectiveness of Foyer models.	Review of the peer-reviewed and grey literature; n=15 studies included in review; quality of studies appraised using frameworks developed specifically for the study and adapted from existing tools.	Claims of effectiveness could not be substantiated due to methodological flaws – lack of differentiation between program outputs and outcomes; program activities/mechanisms of change not documented; evaluation strategy/method poorly articulated; lack of comparison group; no post-intervention follow-up.	CHRN level 1 evidence High quality	OOHC pathway Qn 2 interventions (transitional housing) Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Lipscombe 2003 UK[85]	Assess the effectiveness of remand foster care of young offenders. Highlight the concerns in expanding remand care for JJ offenders.	Case file analysis of young people referred to remand foster care scheme over a 15-month period (n = 46 ages 11–18). Semi-structured retrospective interviews of participants (n=18) – focussing on family background, criminal behaviour and past experiences of remand foster care.	Offending was low during the remand period – 24%. During the study period, 50% of placements were disrupted before sentencing attributed to either behaviour, absconding or offending – similar rate to other fostering placements. Remand fostering preferred to children's homes, secure units or custody. Considered a viable alternative to custodial or residential remands.	CHRN level 4 evidence Moderate quality	JJ pathway Qn 2 interventions Peer reviewed paper
Littell et al. 2005 US[88]	Provide estimates of the impacts of Multisystemic Therapy (MST) on restrictive OOHC placements, juvenile offending, and other psychosocial/behavioural outcomes.	Systematic review of RCTs of MST for young people aged 10–17 with socio-emotional or behavioural problems; published by the Cochrane Library. 266 title and abstracts were reviewed; 95 full-text were retrieved; 35 unique studies were reviewed in full; eight studies were eligible for inclusion.	Intention-to-treat analysis found no significant differences between MST and usual care with regard to 1) restrictive OOHC placements; and 2) offending behaviour. Effects are inconsistent across studies. Evidence regarding the effectiveness of MST is inconclusive.	CHRN level 1 evidence High quality	JJ pathway Qn 2 interventions Peer reviewed paper
Lutze et al. 2014 US[159]	Evaluate Reentry Housing Pilot Program, to understand how participants experienced housing and Wraparound services compared with others.	Longitudinal (2008–2011) multisite outcome evaluation, 208 participants across three study counties.	RHPP was successful in significantly reducing reincarceration; periods of homelessness elevated risk of recidivism, revocations, new convictions and readmission to prison; subsidised housing necessary in coordinated community re-entry.	CHRN level 3 evidence	Prison pathway Qn 2 interventions Primary evidence, although key outcome measure was recidivism not homelessness

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Mackenzie & Thielking 2013 Australia[94]	Describe initial outcomes of The Geelong Project, a place-based community intervention for young people at risk of homelessness.	Mixed methods, cross-sectional study involving population-level screening of homelessness, program outputs, and case studies.	Population screening confirmed that youth homelessness is a hidden problem; all participants identified from the risk screening and referred for support remained housed.	CHRN level 3 evidence Moderate quality	JJ pathway Qn 2 interventions Non-peer reviewed report
Manno et al. 2014 US[82]	Report #1 of the Youth Villages Transitional Living Evaluation. Program implementation and participation findings from an evaluation of the Youth Villages Transitional Living program, which is designed to help young people who were formerly in foster care or juvenile justice custody, or who are otherwise at risk, make the transition to adulthood.	RCT of Youth Villages or TAU. N=1322 participants across multiple sites. The program is highly prescriptive; only practices determined to be sufficiently supported by evidence can be used (e.g. CBT) and these are outlined in the program manual; the program is highly structured and treatment plans are regularly reviewed by clinical supervisors.	The program was implemented largely as expected; a substantial portion of participants received services at the expected level and intensity	CHRN level 4 evidence High quality	JJ pathway Qn 2 interventions Non-peer reviewed report

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
McDowall 2008[32], 2009[35], 2010 Australia	Review progress by governments and agencies responsible for Australian children and young people in out-of-home care. To survey the experiences of children and young people in out-of-home care.	The 2007 and 2008 national surveys that included young people who had recently "aged out" of the care system. Housing instability and homelessness were measured in the first year post-care.	Of the 97 young people who left their placement, 50.5% indicated they had been homeless during their first year of independence (compared with 18% of those who remained with their carer). Males reported a longer period of time spent homeless, on average, compared to females. For those who had a disability, 52% experienced homelessness. Those who experienced periods of homelessness had significantly more placements during the last five years of care than did those who were never homeless.	NHMRC Level IV evidence CHRN level 3 evidence Low quality	OOHC pathway Qn 1 risk factors Qn 2 interventions (transition planning) Non-peer reviewed report
Meade & Mendes 2014 Australia[49]	Describe the implementation of Stand By Me pilot and evaluation, a mentoring program for OOHC young people transitioning from care who are considered to be at particular risk of homelessness post-care.	Mixed methods evaluation (process and outcomes). Stakeholder interviews (young people, program staff, residential care workers, post-care service providers). Interviews with two groups of young people, those that participated in the program and those with similar care experiences but who did not receive the program.	Mentoring relationship is established 6–12 months prior to leaving care and continues until age 21. Not location-based so relationship can continue if employment or housing opportunities require the young people to move out of area.	CHRN level 4 evidence Moderate quality	OOHC pathway Qn 2 interventions (mentoring) Non-peer reviewed report
Mears & Cochrane 2015 US[156]	Comprehensive examination of processes of post-prison release community re-entry.	Review of theory and empirical research, history, cases, policy, trends and arguments over time.	To help develop a conceptual and empirical toolkit for analysing issues and supporting people after release from prison.	CHRN level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; criminology text

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Mendes 2011 Australia[50]	Explore outcomes of St Luke's Anglicare 'Leaving Care and After Care Support Service' (LCACSS)	Interviews with 19 young people receiving support LCACSS regarding their post-care experiences of housing, employment and social relationships. Interviews and focus groups with key stakeholders incl. LCACSS workers and the Leaving Care Alliance (steering group).	Mentoring is one component of the LCACSS model which also includes case management, links to social housing & private rental, transitional housing, living skills training, family support and reconnection, employment support, and support to acquire and store household goods. Most participants had secured housing; 7/19 participant received formal housing assistance from St Lukes; a minority experienced some housing problems including frequent moves and temporary accommodation.	CHRN level 3 evidence Low quality	OOHC pathway Qn 2 interventions (mentoring) Peer reviewed paper
Metraux & Culhane 2004 US[96]	Examines relationships between shelter use and reincarceration.	Administrative data from the New York City Department of Homeless Services and the New York State Department of Correctional Services were used for this study; N=48,424 persons who were released from New York State prisons, to New York City, between 1995–1998 were analysed.	Within two years of release 11.4% of the study group entered a New York City homeless shelter and 32.8% were re-incarcerated. Time since prison release and history of residential instability were the biggest risk factors of shelter use.	NHMRC Level III-3 evidence	Prison pathway Qn 1 risk factors Primary evidence

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Mission Australia 2017 Australia[200]	Describe the implementation and outcomes of a 12-month pilot intervention for social housing tenants with hoarding and squalor problems.	Mixed methods program evaluation. Pre/post assessment of client outcomes (n=29) – validated measures of hoarding and squalor symptoms, mild cognitive impairment, global functioning, personal wellbeing. Interviews and focus groups with clients (n=24) and staff	All tenancies were maintained for the duration of the program. Statistically significant improvements were observed for hoarding symptoms and personal wellbeing.	CHRN level 3 evidence Moderate quality	Social housing pathway Qn 2 interventions Non-peer reviewed report
Montgomery et al. 2006 UK[204]	Review of the literature regarding the effectiveness of independent living programs.	Systematic review of studies comparing outcomes for OOHC young people who did and did not attend an independent living program.	Eight studies were identified; six studies examined housing outcomes, all of which were positive for the ILP group. Methodological flaws in the studies limit the reliability of the findings.	CHRN level 1 evidence High quality	OOHC pathway Qn 2 interventions (transition planning) Peer reviewed publication

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Moran et al. 2005 US[205]	Evaluability assessment of discharge planning in the prevention of homelessness, particularly for people with severe mental illnesses and substance abuse problems who are repeatedly in hospitals, prisons, shelters and drug treatment programs.	Literature review, documentary analysis, review of 19 programs and site visits. Development of alternative research designs with presentation of analytic findings by setting. The authors also developed preliminary logic models for program delivery and discharge planning.	None of the 19 programs studied used screening instruments to identify clients at risk of homelessness. Discharge planning was variable and not well defined. Discharge planning was not readily separable from the broader program/s offered such as client assessment, which was also used as part of treatment planning. The programs studied were not ready for outcomes evaluation; as is likely with many others, much more preparation is required to understand program logic before such evaluation can be undertaken. Further, program eligibility and funding available dictate intervention and discharge planning, rather than need.	CHRN level 4 evidence Moderate quality	Hospital pathway Qn 2 interventions Non-peer reviewed report Important insights for system-level preparation, planning and funding

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Moss et al. 2002 Australia[165]	Understand and share findings about the development of a coordinated care model.	Through multi-disciplinary team collaboration, needs of a convenience sample of 76 emergency department patients were audited, with two thirds deemed eligible for post-acute care. Primary contributors to 'access blockages' were identified, supported by a literature review to ascertain value of risk identification and hospital discharge planning, especially among the elderly. A focus group discussion was also held to activate a Care Coordination Team. Hospital data and surveys of staff, patients, carers and community service providers were also undertaken.	A Care Coordination Team (CCT) was appointed, with $200 000 allocated in the first year, during which time 5.8% of all emergency attendees were seen and nearly half then discharged home with referrals to community support providers. The rate of hospital re-admission and fell significantly and repeat re-admissions showed a downward trend. The CCT was found to have implemented early effective discharge processes, with a wide community support base, 24-hour, seven-day accessibility and a range of post-acute care services provided including across government departments. Resource limitations of these and the CCT as well as time were key constraints as well as necessary limits on eligibility criteria.	CHRN level 3 evidence Moderate to high quality	Hospital pathway Qn 2 interventions Focussed-context specific study recommended for other extension and other populations and locations
Munro et al. 2012 UK[44]	Evaluation of a pilot program allowing young people to stay in their care placements beyond the age of 18 years.	In-depth interviews were conducted with 21 young people that 'stayed put' and 11 who 'moved on' sampled from four different programs/areas. The sample was drawn from a population of 36 foster carers, 31 of whom agreed to extend placements, with 23 young people also agreeing.	There were 22 transitions to independent living during the two-year study period; nine from the 'stay put' group, and 13 from the 'move on' group. Those who stayed put were more likely to experience direct transition pathways, whereas those who moved on typically experienced complex transition pathways marked with housing instability.	CHRN level 2 evidence Moderate quality	OOHC pathway Qn 2 interventions (transition age) Non-peer reviewed report

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Munson & McMillen 2006 US[56]	Describe and examine non-kin natural mentoring relationships among a group of older young people in foster care as well as assess individual mentoring features.	Cross-sectional survey design. Participants were recruited from Missouri Children's Division who were either 17 or turning 17 during the recruitment period (n=339). Out of all participant interviews 62% (n=211) identified the presence of a non-kin natural mentor and were analysed. Descriptive statistics as well as frequencies for categorical values – qualitative and quantitative data.	Data supports mentoring as an intervention strategy for young people (histories of maltreatment and/or psychiatric disorders); 51% met their mentors through formal pathways. A large proportion of participants were non-white (90%) Young people in ILP were more likely to have a mentor than those living with relatives; however, held mentors for a shorter period – possibly due to transience.	CHRN level 2 evidence High quality	OOHC pathway Qn 2 interventions (mentoring) Peer reviewed paper
Natalier & Johnson 2012 Australia[66]	Collection of housing and biographical histories of young care leavers. Examination of volatile and smooth pathways out of care.	Qualitative methodology using in-depth and semi-structured interviews with 77 young care leavers (age M=20.5 years) in Western Australia and Victoria.	Two pathways from care were identified: smooth and volatile. Those who had a smooth transition from care had fewer care placements, felt safe and secure in care, felt involved in the planning process, left care at a later age, felt they were better prepared for leaving care, had a successful first placement. Those on the volatile path had poor experiences of supported/transitional accommodation, lack of professional support, lack of privacy, safety and control, substance abuse and mental health problems, an absence of relationships offering helpful resources, lost accommodation due to harassment, violence and/or relationship breakdown, difficulties coping with new autonomy and independence.	NHMRC Level III evidence Moderate to strong in quality	OOHC pathway Qn 1 risk factors Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Newman & Samoiloff 2005 Australia[193]	Review the success and failures of the actions taken to improve housing outcomes in Victoria and to identify next steps.	Descriptive analysis of Victorian social housing administrative data. Review of policies and programs.	Compared to the waitlist segment, a higher proportion of the recurring homelessness segment abandoned their properties or was evicted.	NHMRC level IV evidence Low quality	Social housing pathway Qn 1 risk factors Conference paper
Nisbet et al. 2012 Australia[93]	Describe a small pilot of a 'Wraparound' intervention in regional NSW.	Program evaluation including administrative data on recidivism and qualitative interviews with stakeholders (n= 2 clients, n=2 staff). The total number of clients supported during the pilot was four.	Two clients reoffended during the study period. Client interviews showed they found it difficult to engage with the program; staff interviews identified greater communication and less redundancy in case management as positive outcomes of the pilot.	CHRN level 3 evidence Low quality	JJ pathway Qn 2 interventions Peer reviewed paper
Nyamathi et al. 2016	Assess effectiveness and impact of peer-coach and nurse-partnered interventions to reduce rearrest, compared to usual care.	RCT among 600 paroled men homeless prior to incarceration with six- and 12-month follow up.	Those who had a substance abuse program contract in residential drug treatment or spent 90 days or more in residential drug treatment were less likely to have been rearrested in 12 months.	CHRN level 2 evidence	Prison pathway Qn 2 interventions Primary evidence; useful insights into interventions; feasible study to adapt for Australian context
Nyamathi et al. 2014[140]	Improve hepatitis knowledge and health promoting behaviours and decrease stimulant use among gay and bisexual homeless men aged 18-46.	RCT among 451 stimulant-using gay and bisexual men, testing nurse case management.	No evidence the nurse case management impacted on homelessness or reincarceration. Younger men and those with prior incarceration were at greater risk of reincarceration and soon after prison release	CHRN level 2 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; not an intervention to reduce post-prison homelessness but reinforces key issues

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
O'Leary 2013 England[95]	Review available evidence on the role of stable accommodation in reducing risk of recidivism.	Systematic reviews and standard search of literature.	The evidence base is unclear. Some research has robust methods but fails to define effectiveness of accommodation as an intervention. Other research focusses on accommodation to reduce risk of recidivism but does not produce strong evidence.	CHRN level 1 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; focus on recidivism as outcome; excellent commentary and to inform interpretation of other studies
Olfson et al. 1999 US[176]	Examined the risk factors of homelessness in discharged schizophrenic inpatients.	A longitudinal study was conducted with N=316 inpatients from a psychiatric facility, who had schizophrenia. Within 72 hours of discharge, participants completed a series of questionnaires covering mental health, substance use, and housing. Three months post-discharge, the participants completed the same questionnaires.	Within the three-month follow-up period, 7.6% of the participants had experienced an episode of homelessness. Risk of homelessness was associated with more severe psychiatric symptoms, lower global functioning score, and misuse of drugs (but not alcohol).	NHMRC level II evidence Low quality	Mental health pathway Qn 1 risk factors Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Osterling & Hines 2006 US[52]	To describe the characteristics and experiences of young people and their mentors participating in the 'Advocates to Successful Transition to Independence' (ASTI) program – a one-on-one mentoring program for OOHC young people aged 14–21 and incorporating an independent living program (ILP).	Mixed methods evaluation comprising: survey of n=52 young people (41% response rate); survey of n=18 mentors; focus group (three groups, n=18) with mentors; focus groups (two groups, n=3) and interviews (n=4) with young people.	Descriptive statistics only; housing not examined in relation to mentoring; 44% reported they had the skills to 'find a place to live'. Four themes identified from focus groups/interviews with young people: nature of relationship with advocate, types of changes felt (including increased trust and openness); preparation for independent living; and program recommendations. Five themes identified from focus groups with mentors: nature of relationship with young people; challenges (including difficulty finding transitional housing for young people, lack of clarity with role, differences in ILP implementation); types of changes observed; preparation for independent living; program recommendations. The authors recommend that the mentoring relationship is established well before leaving care because a strong relationship appears to be necessary before independent living skills can be addressed by the mentors. They also suggest stronger links between mentoring and independent living programs and more coordination and support for mentors.	CHRN level 3 evidence Moderate quality	OOHC pathway Qn 2 interventions (mentoring) Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Pawson & Munro 2010 UK[192]	To investigate and identify the factors influencing tenancy breakdown among social housing tenants in Glasgow.	Logistic regression analysis of propensity for early tenancy termination using administrative data from the Glasgow Housing Association – n=8237 lettings 2003-2005. Thematic analysis of in-depth interviews with n=50 former GHA who had left their tenancy in the preceding 18 months.	Premature exits rates were similar for formerly homeless and wait-list households; little difference between these two groups in the proportion of exits due to abandonment. Factors found to be significantly associated with premature exits included: household with children; social housing tagged for regeneration, review or demolition; formerly homeless; type of housing; younger age.	NHMRC level III-2 evidence Moderate quality	Social housing pathway Qn 1 risk factors (premature exits) Peer reviewed publication
Petersilia 2005 US[135]	Ascertain numbers and demographics of prisoners returning to the community from prison.	Data from a large inmate survey, with analyses on a subset of those to be released within 12 months; explores demographics, needs and issues including mental health, substance abuse, education status of individuals; changes over time at a national level.	Understanding individuals' circumstances helps design appropriate programs. A person's re-entry success is influenced by the culture of organisations and programming issues, and intersections between incarceration and other policy domains including housing, healthcare, employment, policing and community development.	NHMRC Level IV evidence	Prison pathway Qn 1 risk factors Indirect supporting evidence; chapter in edited book exploring the relationship of public safety, public opinion, crime and growth in incarceration in the US.

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Podymow et al. 2006 Canada[172]	Shelter-based convalescence for homeless adults.	Retrospective study of diagnoses and utility of shelter-based convalescence among a cohort of homeless people at a 20-bed shelter providing up to three-months post-hospital or drug treatment discharge, using electronic health records.	140 males had 181 admissions with most treated for a medical or surgical condition and psychiatric illness as well as one third for addictions. Medication adherence was low in most, but during admission 60% applied for housing, 24.3% obtained housing, a fifth obtained new healthcare cards and a most received assistance with transportation to appointments. The authors recommended such shelter-based stays as useful for providing healthcare, including ensuring adherence to treatment, decreasing substance misuse and assisting with housing.	NHMRC Level III-2 evidence CHRN Level 3 evidence	Hospital pathway Qn 1 risk factors Qn 2 interventions
Poroch 2007 Australia[111]	Identify a best-practice model of holistic health service delivery for Aboriginal and Torres Strait Islander people in a new prison.	Conducted by an Aboriginal and Torres Strait Islander Community Controlled Health Organisation; literature review and qualitative data gathered from 22 ex-prisoners, 17 family members of prisoners and ex-prisoners, 39 support service staff.	Provides a human rights and social justice framework for prisoner support; the holistic care model includes healthcare during incarceration, post-release service coordination with family and community connection strategies and early intervention to prevent reincarceration.	CHRN Level 3 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; not about homelessness as such; leadership example of culturally-safe care by Aboriginal and Torres Strait Islander people

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Pullman et al. 2006 US[91]	To examine the impact of 'Connections', a Wraparound intervention on recidivism among juvenile offenders.	Quasi-experimental study using a historical control group. Criteria for inclusion in the intervention: minimum six months' probation, diagnosed behavioural health disorder, receiving services in multiple systems and assessed as high risk of reoffending. Administrative data was analysed for n=106 intervention and n=98 historical controls.	The intervention group took 3x longer to recidivate, had fewer periods of detention and less overall days in detention; and less behavioural and emotional problems. Unable to draw any conclusions regarding the program elements that were associated with the outcomes (no fidelity measure used). No cost analysis undertaken.	CHRN Level 2 evidence High quality	JJ pathway Qn 2 interventions Peer reviewed paper
Purtell & Mendes 2016 Australia[48]	To explore experiences of OOHC leavers who participated in the Stand By Me pilot.	Qualitative interviews conducted with 9/12 program participants and an undisclosed number of comparison young people who received support-as-usual. No other details of the method are provided.	All participants were stably housed at the time of their interview. Stand By Me participants were supported into housing during the transition period. In contrast, the comparison group appeared to access housing via youth homelessness services post-care.	CHRN level 2 evidence Low quality	OOHC pathway Qn 2 interventions (mentoring) Peer reviewed paper
Quilgars et al. 2012 UK[100]	Evaluate three-year pilot program Shelter Prisoners Advocacy Release Team (PART), providing support for short-term prisoners in housing need upon exit from HMP Leeds, with support for eight months post-release.	Individual client monitoring (N=199), longitudinal interviews with service users, analysis of reconviction data, interviews with staff and key stakeholders, focus groups with other ex-offenders, analysis of similar services, and cost analysis.	Those who completed their PART support plan maintained or improved upon their housing and community resettlement. Success was influenced by structural, institutional and individual factors including unavailability of housing, shortage of suitable jobs, and gaps between corrections, income and social support systems.	CHRN level 3 evidence	Prison pathway Qn 2 interventions Primary evidence; excellent range of informative data gathered about elements of the program

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Reilly 2003 US[33]	Explored the post-discharge functioning of young people formerly in foster care with respect to housing, employment, education, health, safety, legal involvement, social support, general functioning/adjustment.	Retrospective, cross-sectional survey of n=100 young people that left OOHC in the preceding 3yrs. Participants were identified via a list of OOHC clients generated by the State department.	Homelessness post-care was associated with number of care placements and small social networks.	NHMRC Level IV evidence Low quality	OOHC pathway Qn 1 risk factors Peer reviewed paper
Robson & Eugene 2008 Australia[123]	Understand outcomes of the Queensland Corrective Services Offender Reintegration Support Service.	Service-level data from those accessing the new program; conference presentation.	Only a very small number of Aboriginal and Torres Strait Islander people access the program	CHRN level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence
Roman 2004 US[102]	Answering critical questions about the persistence of gaps between systems that impact on the individual, including how to encourage intersectoral collaboration and involving communities to which prisoners return.	Reaction essay drawing on a range of literature.	Restrictive policies, laws and regulations hinder post-prison release community reintegration, which contributes to homelessness.	CHRN level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; commentary on Metraux and Culhane's 2004 study, reinforcing unmet post-prison release needs which contribute to homelessness.

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Ross 2003 Australia[147]	Evaluation of intensive transitional support program running for two years, to identify problems, solutions and effectiveness associated with the program.	Conceptual, formative and outcome evaluation reviewing the theoretical basis for the program, operations and effect of program for service users across health, housing, employment and family life.	Served as a focal point between five support agencies and government; common program model requiring adaptation for different services, resources and priorities. Recommendations for coordinated care, addressing barriers between services and accessibility, as well as addressing needs of individuals.	CHRN level 3 evidence	Prison pathway Qn 2 interventions Primary evidence; important lessons learned for the Australian context; not specific to preventing homelessness with focus on recidivism, drugs and death.
Sadowski etal. 2009 [173] US	RCT to assess the effectiveness of a case management and housing program in reducing use of urgent medical services among homeless adults with chronic medical illnesses.	Randomised controlled trial conducted at a public teaching hospital and a private, nonprofit hospital in US with 407 social workers.	Hospitalisations, hospital days, and emergency department visits measured using electronic surveillance, medical records, and interviews. Offering housing and case management to a population of homeless adults with chronic medical illnesses resulted in fewer hospital days and emergency department visits, compared with usual care.	NHMRC Level III evidence High quality	Hospital pathway Qn 2 interventions
Schram et al. 2006 US[116]	To understand factors in success or failure of parole over 12 months following prison release.	Data coded from parole files among a sample of 546 female parolees.	Parole success was related to stable living arrangements, drug and alcohol treatment and being employed. Parole is increasingly shifting to supervision rather than providing treatment and support.	NHMRC Level IV evidence	Prison pathway Qn 1 risk factors Indirect supporting evidence

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Seiter & Kadela 2003 US[129]	Challenge the traditional notions of post-prison community re-entry and what defines success and effectiveness.	Systematic review to define re-entry, to categorise programs and apply the Maryland Scale of Scientific Method to determine effectiveness of program categories to reduce recidivism.	There are major gaps in evidence as well as measurement; vocational training and or/or work release programs, drug treatment, therapeutic communities, aftercare programs and education are effective in reducing recidivism.	CHRN level 1 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; high quality although not focussed on preventing homelessness as such
Senteio et al 2009 US[68]	Determine if the Transition Resources Action Centre's (TRAC) residential program is effective at assisting state care leavers in creating a stable life.	Sample drawn from clients of the TRACs transitional housing program. The Self Sufficiency Matrix was completed, and then compared, at two time points (one year apart) for 24 young adults who were involved in the TRAC program, based in Texas. Model based on the Casey Family Program Transitions Framework.	Fewer clients were homeless or were threatened with eviction at screening 2 compared to screening 1, with two clients even able to find safe, adequate, unsubsidised housing during that time. Employment, healthcare, and family support also increased at screening 2.	CHRN level 3 evidence Low quality	OOHC pathway Qn 2 interventions (transitional housing) Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Shah et al. 2016 US[24]	Explore predictors of homelessness during the first year after aging out of foster care.	Analysis of multisource longitudinal linked dataset comprising education records, child welfare, housing, criminal justice and health. Homelessness identified as a record in either the Automated Client Eligibility Information System or the Homeless Management Information System in the one year post-OOHC.	Logistic regression model included 15 predictors of which five were found to be significantly associated with homelessness: being a parent, African American, prior history of homelessness (before leaving care) or accessing housing assistance post-care, return to foster care following an adoption, multiple OOHC placements, multiple school changes, involvement with the criminal justice system and injury resulting in a medical claim. OOHC placement with a relative and a higher GPA was protective against homelessness Non-significant predictors: history of behavioural problems during OOHC, mental health problems.	NHMRC Level III-2 evidence Moderate quality	OOHC pathway Qn 1 risk factors Peer reviewed paper
SHASP Members Network 2014 Australia[197]	Describe the clients who accessed SHASP's tenancy support program.	SHASP collected client data from a three-month period, during which 2300 individuals were supported by the program. Data was analysed to understand the clients and the services they used.	Lone individuals and single parents were the two largest cohorts. The biggest issues for clients were "financial difficulty and arrears", "hoarding and squalor", and "mental health problems".	NHMRC level IV evidence CHRN level 3 evidence Low quality	Social housing pathway Qn 1 risk factors Qn 2 interventions Non-peer reviewed report

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Shinkfield 2006 Australia[101]	Assess the relationship between emotional states in the transition from prison to post-release community living, with a range of other variables that impact at this time.	PhD thesis. Three quantitative studies using pre- and post-prison questionnaires with 79 men were conducted: (1) assessing intra-personal, subsistence and support conditions of reintegration, (2) emotional state during reintegration and (3) relationship between emotional state and other reintegration variables.	Developed a three-part ecological model of community reintegration of ex-prisoners, supporting the notion that wholistic care is required, improve access to counselling, create linkages and referrals between services, and address multiple layers of disadvantage as well as the interplay between these factors.	NHMRC Level IV evidence	Prison pathway Qn 1 risk factors Indirect supporting evidence
Shpiegel & Simmel 2016 US[34]	Compare outcomes of sexual minority and heterosexual young people transitioning from OOHC.	Secondary analysis of multi-site evaluation of foster youth programs (MEFYP) – RCT of effectiveness of four ILP; participants interviewed at entry to the program and then again 12 and 24 months (i.e. ages, 17, 18 and 19). Study sample included those with three waves of data (n=405; 40% male).	Logistic regression analysis found increased victimisation in family of origin; multiple OOHC placements and sexual orientation were associated with homelessness post-OOHC.	NHMRC level II evidence Low quality	OOHC pathway Qn 1 risk factors Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Spencer et al. 2010 US[55]	Examine the current mentoring approaches for foster care youth.	Literature review on the effectiveness of young people mentoring programs and the psychosocial consequences for young people exiting foster care.	Mentoring may complement services for transitioning young people. It is not a substitute for other structural services. Suggest evaluations should be a larger component of mentoring. Identify a lack of empirical knowledge.	CHRN level 3 evidence Low quality	OOHC pathway Qn 2 interventions (mentoring) Peer reviewed paper

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Steels & Goulding 2009 Australia[128]	Highlight the impact of systemic damage to Aboriginal communities and connection to incarceration.	Policy and literature review	Aboriginal communities experience higher levels of post-traumatic stress disorder, grief and trauma than others, with ongoing effects of forced removals contributing to disadvantage across generations. Local therapeutic responses are required to address local experiences and differences including with dispossession and Stolen Generations.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence, advocating for alternatives to incarceration to prevent risks to individuals and communities

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Steen & Mackenzie 2016 Australia[75]	To examine whether the foyer model is financially sustainable in the Australian context.	Case study of five UK foyer models; comparison made to Australian Foyer models (details not provided). Program costs obtained.	The authors conclude that Foyer models in Australia are potentially unsustainable.	CHRN level 4 evidence Moderate quality	OOHC pathway Qn 2 interventions (transitional housing) Peer reviewed paper
Swan & Raphael 1995 Australia[109]	Provide an overview of mental health needs of Aboriginal and Torres Strait Islander peoples.	Consultancy process following from the National Aboriginal Mental Health Conference; survey of Aboriginal Community Controlled Health Organisations; additional numerous interviews, meetings and site visits.	Provides a policy and plan with strategies and targets for improving mental health and wellbeing; identification of services and strategies to be led by Aboriginal Community Controlled Health Organisations; holistic and self-determined care by Aboriginal and Torres Strait Islander peoples is paramount, including to shape specialised mental health care and the mixed services required to address inequity.	CHRN Level 3 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; endorsed by the National Aboriginal Community Controlled Health Organisation

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Thompson et al. 2016 US[47]	To synthesise the literature on natural mentoring among young people in foster care and to make practice recommendations and outline an agenda for future research.	Systematic review. Eligibility criteria: English language; published up to 2015; peer-reviewed and grey literature; quant and qual research articles as well as theoretical/conceptual papers, reports and policy briefs; natural mentoring among emerging adults (13–25yrs). Natural mentoring = "presence of a supportive, caring relationship with a non-parental adult (other than a peer, spouse or present caregiver) from within a young people's existing social network" (p.42)	38 documents published between 2006–2015 were included. Overall, the studies report a positive effect of mentoring on psychosocial, behavioural and academic outcomes. Longevity and consistency are important characteristics of effective mentoring relationships Future research needs to explore the way in which natural mentoring relationships are formed and maintained by foster young people incl. the role of stable placements in this; ways to incorporate relationship-based components into existing programs for OOHC young people aging out of the system. Limitations: inability to generalise findings; small sample size of studies; cross-sectional study designs etc. ⇨ rigorous evaluations of mentoring programs are required.	CHRN level 1 evidence High quality	OOHC pathway Qn 2 interventions (mentoring) Peer reviewed paper
Travis & Petersilia 2001 US[132]	A 'new look at an old problem' of the effectiveness of parole in community reintegration and preventing reincarceration.	Review of existing data; theoretical and critical analysis of trends.	New interpretations are required about parole data and critique of parole is required; a shift to coordinated systems and functions is recommended with a focus on community wellbeing, which should then shape crime policy.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; useful discussion of interpretation of statistics and policies

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Tsai et al. 2014 US[153]	Examine distinctive characteristics of incarcerated homeless and non-homeless veterans.	Analysis of data using multinomial logistic regression of 30,348 incarcerated veterans serviced by the Health Care for Re-entry Veterans program.	30% had a history of homelessness – five times the rate in the general population, and with significantly more mental health problems, substance abuse, arrests and likelihood of reincarceration. They were also more interested in receiving services after prison, and demonstrate great need for healthcare and support.	NHMRC Level III-2 evidence	Prison pathway Qn 1 risk factors Primary evidence, although focussed on a specific population not generally seen in Australia in the same proportion as the US
Uggen et al. 2004 US[127]	To extend thinking about life course criminology and what it offers to better supporting desistance from crime.	Review of evidence and theory, conceptual modelling and framework development.	Civic reintegration is a third important domain in addition to usual theorising and programming which highlights reintegration to work and family.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; Relevant particularly to the lives of Aboriginal and Torres Strait Islander peoples who often have strong ties and responsibilities to community
UN Mandela Rules 2015 Geneva	Update 1955 standard minimum rules for treatment of prisoners.	Developed by UN Member States.	Documentation of universally acknowledged benchmarking for prison administrators; encouragement for Member States to reflect the rules in national legislation so prison administrators can adopt them in policies and daily work.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions New human rights instrument to inform policy and programming

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Valentine et al. 2015 US[81]	To determine the effectiveness of a nine-month floating case management model for young people transitioning from OOHC and juvenile detention.	RCT of program participants (n=788) and a waitlist control (n=534), aged 18–24 years.	Program participants had greater housing stability at one year follow-up although the effect size was small. The majority of study participants (both the intervention and control groups) were stably housed at baseline.	CHRN level 2 evidence Moderate quality	JJ pathway Qn 2 interventions Non-peer reviewed report
van der Stouwe et al. 2014 Netherlands[89]	To examine the impact of Multisystemic Therapy on delinquency and other behavioural and psychosocial outcomes among juvenile offenders.	Multilevel meta-analysis of published and non-published studies including both randomised and non-randomised study designs using samples of conduct disordered and/or delinquent juveniles. Included: k=22 studies reporting on N=4066 juveniles of whom n=1890 received MST and n=1835 comprised the control group.	Significant effects were found for delinquency, family functioning, peer networks, psychopathology and parenting. May be most effective for young people <15yrs and Caucasian Mechanism of effect may be the multi-modal approach.	CHRN level 1 evidence High quality	JJ pathway Qn 2 interventions Peer-reviewed paper
Visher & Mallik-Kane 2007 US[122]	To consider how to link correctional healthcare with public healthcare in the community re-entry process post-release.	Examines available literature and commentary on the experiences of men with health problems exiting prisons.	The cycle of incarceration of men aged 18–35, who make up the majority of the prisoner population, are disproportionately unwell with multiple conditions and socio-economic disadvantage, which creates specific health needs for them and their families as well as community.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; Focussed discussion on impact of individual experience on family and community

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Walsh 2004 Australia[112]	Investigation of prison release practice in Queensland and its impact on individual wellbeing, program design and community safety.	Literature, policy and legislation review; four focus group discussions with ex-prisoners and service providers; 22 written submissions from ex-prisoners and service providers; permission was declined by Queensland Corrective Services for prisoners to be interviewed.	Prison is a stressful and damaging experience that does not rehabilitate but worsens individual and family wellbeing; 50 recommendations for improvements are made including for serious attention to implementing through care.	CHRN level 3 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; excellent inclusion of legislation and policy
Warner 2015 US[115]	Examine the residential mobility patterns of individuals with a history of incarceration.	Restricted-use and public-access data was used from the 1979 National Longitudinal Survey of Youth, which has regularly interviewed an original cohort of 12,686 respondents since 1979.	Those with a history of incarceration are more residentially mobile than those without a history of incarceration. Additionally, rates of mobility are higher after prison than before.	NHMRC Level III-3	Prison pathway Qn 1 risk factors Indirect supporting evidence about program-level risk factors
Weatherburn 2014 Australia[144]	To dismantle two theories: that over-representation of Aboriginal and Torres Strait Islander people relates to systemic and racial bias, and that empowering strategies offer solutions.	Draws on already-published criminal justice administration and population-based data sets and journals.	Summaries of data; controversial opinions about Aboriginal and Torres Strait Islander peoples' experiences and factors which contribute to over-incarceration; calls for strategies to support individuals, strengthen communities and reform systems.	CHRN Level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; evidence base is currently lacking and flawed when it omits Aboriginal culturally-informed perspectives

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
West et al. 2013 Australia[141]	Evaluation of Targeted Housing and Support Services (THSS) program led by Corrective Services NSW and delivered by Community Restorative Centre.	Literature review and review of data for 60 clients; stakeholder consultation with 29 people including six who exited THSS and service providers; strengths-based approach; no matched comparison group and lack of baseline data or follow-up.	All clients were housed, despite changes to housing that was to be provided as expected; strong partnerships enabled additional housing, and support. Indicative data suggested reduction in reoffending. The model was considered to work well for high risk women.	CHRN Level 3 evidence	Prison pathway Qn 2 interventions Primary evidence; important local NSW insights
West et al. 2013b. Australia[61]	Final evaluation report for the young people leaving care support service – North Coast. To examine the impact of the project on a reduction in homelessness & other client outcomes; critical success factors and barriers; and cost effectiveness.	Case management service for OOHC leavers aged 16–25; three stages – stabilisation, living skills development, and transition to mainstream support. Three Aboriginal youth workers employed as part of the project. Mixed methods study – analysis of admin data, review of program documents, interviews with key stakeholders (program staff and clients, external service providers).	Of the n=57 admin records reviewed for 2011/12: 66% were homeless or 'at risk' at entry; n=39 housing placements were established; and n=43 remained stably housed. The program improved access to private rental due to real estate confidence in case management and ID credit points accrued from completing the 'reality rental' course. Program deemed effective for Aboriginal young people because of involvement of Aboriginal youth workers. Structural difficulties e.g. housing affordability, and program difficulties e.g. late referral, were noted.	CHRN level 3 evidence Moderate quality	OOHC pathway Qn 2 interventions (transition planning) Non-peer reviewed report

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Wiesel et al. 2014 Australia[191]	To examine the profile of people leaving social housing including their motivations for leaving and the risks in accessing and sustaining market housing.	1. Secondary analysis of tenancy termination data from social housing authorities 2012–2013. 2. Cohort analysis of social housing authority data, cohort selected on new tenants, measures included proportion of sustained tenancies each year & proportion where rent had increased. 3. secondary analysis of HILDA 4. Survey of n=600 current social housing tenants in Melbourne, Ballarat, Sydney & Wagga on housing satisfaction, employment, & intentions to stay/leave. 5. Interviews with n=36 people in first social housing tenancy, n=21 returning social housing tenants, & n=38 former tenants that exited up to 1 year prior. Sampled from the same geographic locations as the survey.		NHMRC Level IV evidence Moderate quality	Social housing pathway Qn 1 risk factors Peer reviewed report (AHURI #229)

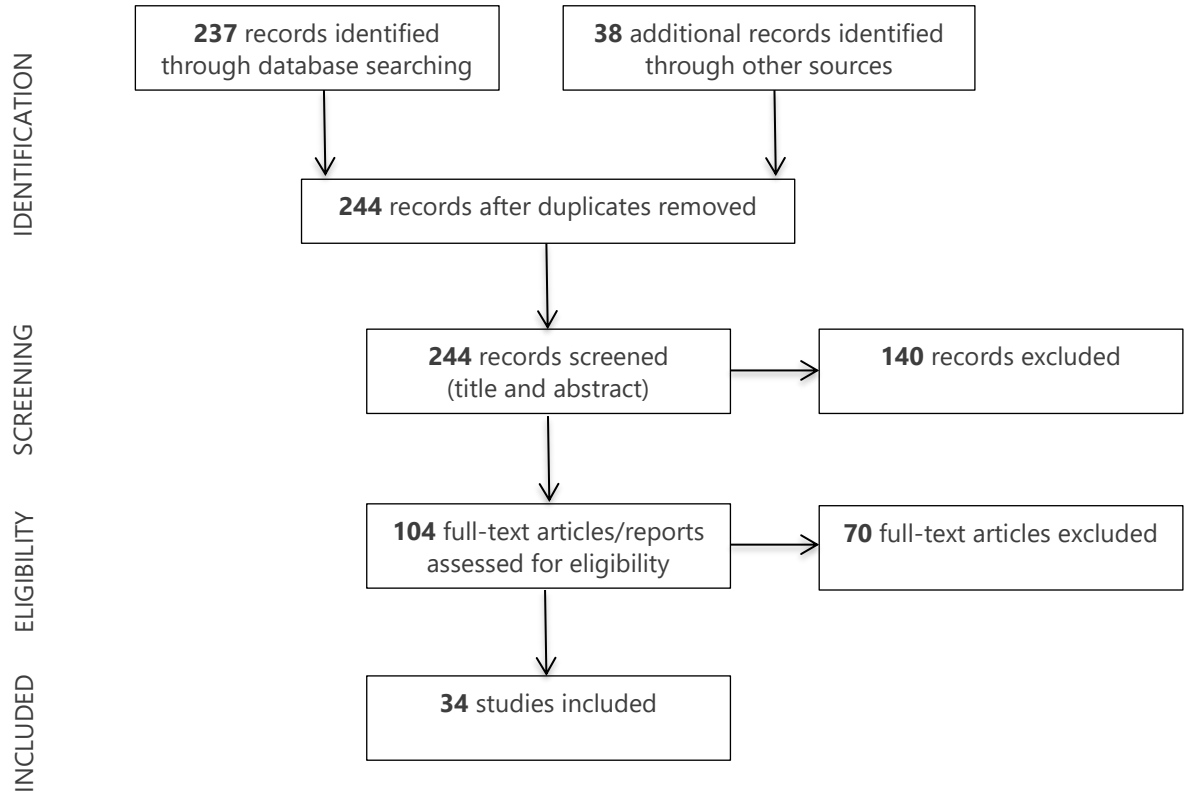
Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Williams et al 2010 US[152]	Assess health status and risks of homelessness of older pre-release prisoners and compare with non-veterans; distinct from most other older-age prisoner research which is among veterans.	Cross-sectional study of 360 prisoners within two years of release from prison using routinely collected State and Federal data.	Description of population including high burden of medical illnesses and risk for post-release homelessness; no significant differences found between veterans and non-veterans; linked medical, psychiatric and homelessness prevention programs are advocated.	NHMRC level IV evidence	Prison pathway Qn 1 risk factors Primary evidence; one of the few studies particularly examining homelessness risk; indirect, supporting evidence
Willis 2004 Australia[105]	Examine the current state of knowledge about prisoners and post-release accommodation.	Literature and policy review, including information about programs and trends; interviews with Supported Accommodation Assistance Scheme staff and ex-prisoner clients.	Challenges in providing services to ex-prisoners, perceived gaps in services; discussion of the links between homelessness and offending; discussion on best practice including addressing multiple needs and problems with institutionalisation that individuals experience.	CHRN level 4 evidence	Prison pathway Qn 2 interventions Indirect supporting evidence; unique Australian study of accommodation for ex-prisoners
Willis & Moore 2008 Australia[106]	Gain a more thorough understanding of the reincarceration rates among Aboriginal and Torres Strait Islander males, as well as the impact of violence on their lives.	Data from all Australian jurisdictions and covering 8938 males incarcerated for violent offences and released from prison over a two-year period; 41 interviews with prisoners, ex-prisoners and stakeholders.	Aboriginal and Torres Strait Islander males were reincarcerated sooner and more frequently than others, and for the same types of violence offences each time, usually assault; extend of reincarceration showing that current attempts to rehabilitate and reintegrate are failing.	NHMRC level IV evidence	Prison pathway Qn 1 risk factors Indirect supporting evidence; one of the only studies of Aboriginal and Torres Strait Islander peoples; government report, not from Aboriginal and Torres Strait Islander peoples' perspectives

Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Woodhall-Melnik & Dunn 2016 Canada[187]	To review the peer reviewed literature on the effectiveness of Housing First.	Systematic review of studies published 2000–2013 that report the impact of Housing First on any of the following outcomes: housing, psychiatric/substance use, quality of life and service use. 31 studies were identified.	There is strong and consistent evidence of the effectiveness of housing first in reducing homelessness and improving housing stability but evidence of improvement in psychiatric symptoms is less reliable. Given the differences in health systems across countries, caution should be applied in implementing the model in other contexts.	CHRN level 1 evidence Moderate quality	Mental health pathway Qn 2 interventions Peer reviewed literature
Woods et al. 2013 US[145]	Explore unique characteristics of a public health approach to the release of prisoners to the community, including collaborations for continuity of care.	Review of the Connecticut Building Bridges Community Reentry Initiative which aimed to establish longitudinal, quasi-experimental evaluation with a demographically matched sample receiving standard care.	A 'prevention science' and ecological framework is proposed that integrates universal and selected strategies to support prisoners re-entering the community, shifting from the 'usual' program models particularly by addressing underlying needs.	Level 2 evidence Moderate quality	Prison pathway Qn 2 interventions Primary evidence
Young et al. 2015 Australia[151]	Examine the association between early primary care physician contact and health service utilisation rates.	Prospective cohort study of 847 participants, followed up via telephone one, three and six months post-prison release.	46.5% contacted a primary care physician within one month of follow-up, which was positively associated with further service utilisation over six months including hospital, drug and alcohol treatment, mental health care and subsequent primary care physician consults.	NHMRC level II evidence	Prison pathway Qn 1 risk factors Indirect supporting evidence; not about preventing homelessness as such

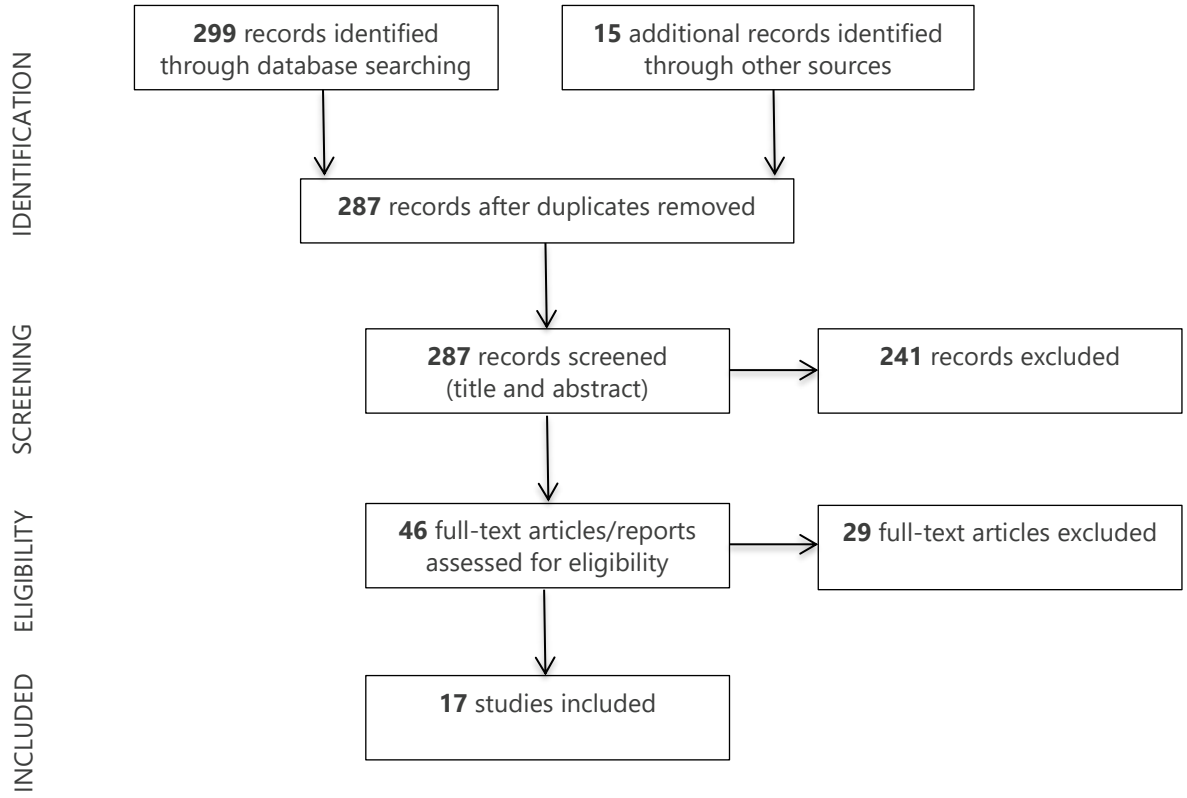
Author, country, year	Objective of the study	Description of study (design, sample size, participants, setting)	Study findings / outcomes	Strength of evidence (e.g. strong, moderate, weak or NHMRC level)	Comment / notes
Zimmerman et al. 2002 US[54]	Examine the effects that natural mentors (NM) have on the lives of urban adolescents.	Structured face-to-face interviews. Participants were recruited from a larger scale longitudinal study of school dropout and drug use (n = 770). Stage 1: MANOVA was used to determine whether having NM was related to any of the other adolescent outcome measures. Stage 2: 'Resiliency Models; - Four step linear regressions to test compensatory and protective effects of a NM. Stage 3: 'Path models' - Direct and indirect effects of natural mentors with 4 path models.	A proportion of 53.8% participants reported having a NM – most commonly an extended family member (35.7%). Stage 1: Young peoples with NM reported more positive school attitudes, less marijuana use and violent behaviour than those without NM. Having NM was also associated with lower problem behaviour. No difference was found with psychological distress. Stage 2: NM's only fit the compensatory factor model. Both models fit for school attitude outcomes. Stage 3: Direct effects of NM on all outcomes. NM's are associated with a range of adolescent outcomes.	CHRN level 2 evidence Moderate quality	OOHC pathway Qn 2 interventions (mentoring) Peer reviewed paper

Appendix 2: PRISMA diagrams

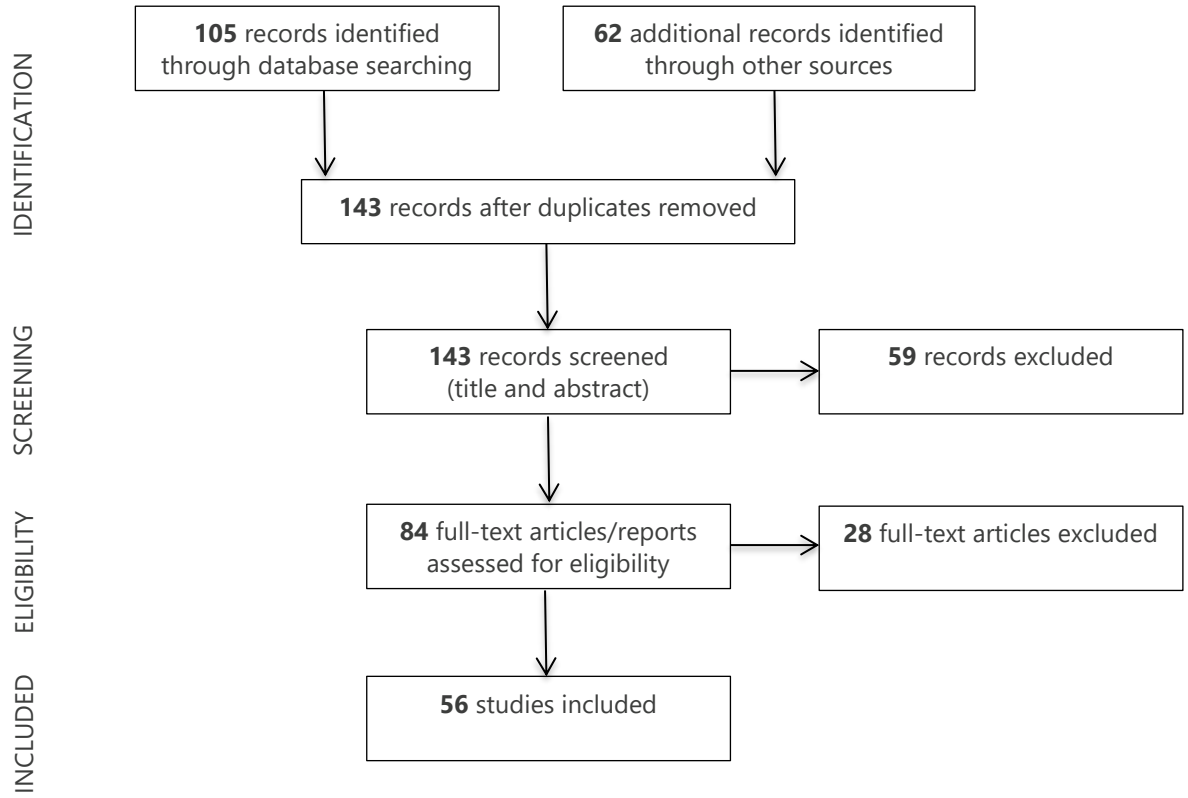
PRISMA diagram for the out-of-home care pathway



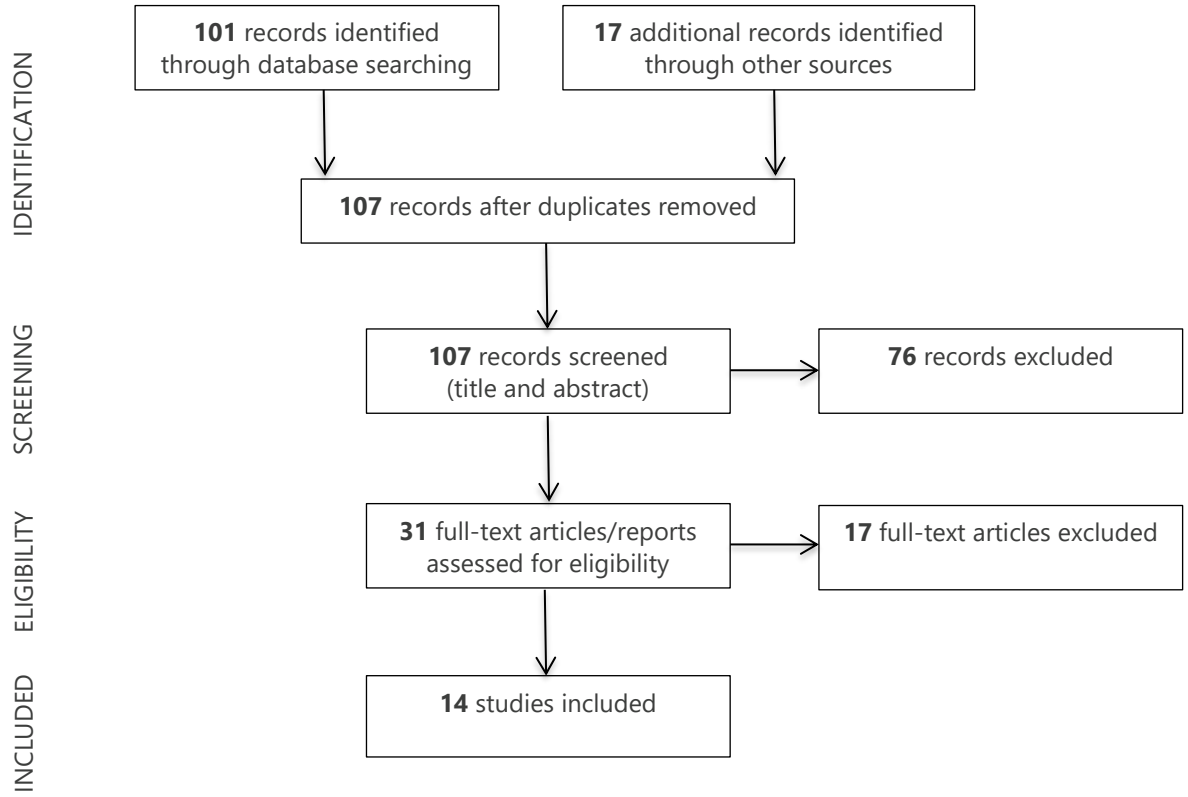
PRISMA diagram for the juvenile justice pathway



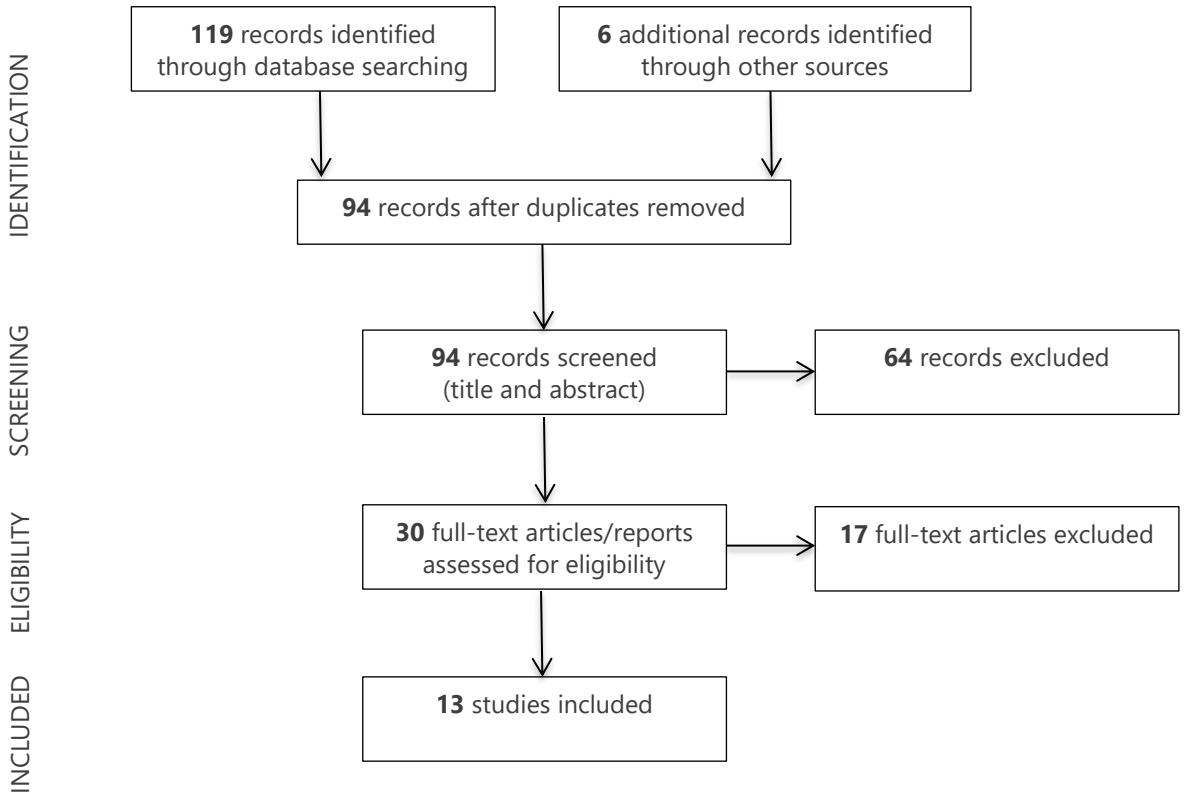
PRISMA diagram for the prison pathway



PRISMA diagram for the hospital pathway



PRISMA diagram for the mental health pathway



PRISMA diagram for the social housing pathway