

Protocol for an Evidence and Gap Map of Studies of the Effectiveness for Those Affected by and at Risk of Homelessness in High-Income Countries

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Background

The problem, condition or issue

Weak economic performance and rising property costs increase the numbers of those homeless, at risk of becoming homeless and living in inadequate housing. For instance, estimates of 'core homelessness' in 2016 stood at around 160,000 households in Great Britain.

Homelessness, even of short durations, can result in social exclusion with reduced access to a range of social services and reduced employment possibilities. Homeless people have worse health outcomes, and there is a mutual relationship between homelessness and other social disadvantage such as mental health problems and substance abuse.

Effective interventions are therefore required to place and keep people in stable housing, and address the health and wider support needs of all people experiencing or at risk of homelessness. There is a range of interventions to try to prevent homelessness and to increase housing stability. However, the evidence base of studies of the effectiveness of these interventions is thought to be uneven by both study design and geography, with most studies being conducted in North America.

Scope of the EGM

Full name: An Evidence and Gap Map of Studies of the Effectiveness for Those Affected by and at Risk of Homelessness in High-Income Countries.

Short name: Homelessness: an Evidence and Gap Map

Homelessness is broadly defined to include not only those sleeping rough. Those experiencing homelessness are those who have no accommodation and so sleep on the street (sleeping rough) or in temporary, insecure or poor-quality housing (European Commission, no date). Those at risk of homelessness may currently be in satisfactory accommodation but at risk of losing it – for example because of loss of employment or other income source.

The interventions, which are listed below, are interventions whose main purpose to improve the welfare of those experiencing or at risk of homelessness.

Conceptual framework of the EGM

Figure 1 shows the logic model for the interventions and how they link to the major outcomes. Key features are:

1. Legislation sets the context affecting services, care and accommodation;
2. Public opinion, which is affected by advocacy and communication, affects legislation and provision of interventions such as accommodation;
3. Services and outreach and social care can improve health and reduce substance abuse, thus allowing access to education and skills training and so employment.
4. These can lead to increased income and so stable housing and improved wellbeing
5. Providing accommodation can support stable housing which in turn supports health and employment prospects (the reverse causation shown by the dotted line)
6. Prevention enters into this causal chain at several points
7. Interventions interact reflecting that clients often need multiple services

Why it is important to develop the EGM

Currently, there is no single resource which allows policy makers, practitioners and researchers working to improve the welfare of those experiencing homelessness to access the available relevant evidence on which programmes work. The review team is working with the UK Centre for Homelessness Impact (CHI) to develop the evidence architecture for the sector.

The Centre for Homelessness Impact plans to become a ‘one stop shop’ for evidence for policy makers and practitioners in the sector. As a first step, working with the Campbell Collaboration, the Centre is producing two evidence maps of evidence on homelessness. This protocol is for the map of effectiveness studies of What Works to improve the Welfare of those Experiencing Homelessness. A second map will show implementation issues for such interventions as identified in process evaluations. The two maps together will comprise the largest single source globally of evidence on interventions for those experiencing and at risk of homelessness.

CHI aims to improve the welfare of people affected by homelessness by providing evidence-based resources for policy makers and practitioners. The evidence and gap maps are the first part of that evidence architecture, and a building block for what will come next. The maps will identify the evidence to be used in the Centre’s online evidence resources. And the maps will inform the future policy-oriented research programme of the Centre.

In the coming years CHI will be commissioning new studies to assess the effectiveness of programmes for those affected by homelessness. The map will inform the identification of priority areas where evidence is currently lacking, such as rigorous studies of the effectiveness of reconnection programmes or those being discharged from mental health or penal institutions.

Figure 1 Logic model for homelessness interventions

	Prevention												
Legislation	Services and outreach	Social integrated and access services											
	Health and social care	Better health (inc. mental health) Less substance abuse	Employment, education and skills		Increase in income and well-being			Stable housing					
	Accommodation-based interventions												
	Public attitudes				Reverse causation								
	Communication												

Existing EGMs and relevant systematic reviews

We are aware of two other maps related to homelessness. One is being prepared by the Canadian Homelessness Health Network. That map has a narrower focus than ours, but we are sharing resources with the team to ensure consistency in coverage. A second, unpublished map, was produced by the Sax Institute for the New South Wales state government. That map, which includes only 16 studies, is narrower in scope than the proposed sector wide map we will produce.

There are a number of systematic reviews, all of which are narrower than the proposed map.

Most recent is a rapid evidence review undertaken by CRISIS. The review has a broad scope but limits the evidence being reviewed: 120 studies were identified as high quality of which 35 were analysed (SCIE, 2018). Munthe-Kas et al. (2016) restrict their systematic review to studies which assess the impact of interventions on housing status. They include 43 studies, but list around 100 more which report other outcomes. The systematic review by Altena et al. (2010) is restricted to homeless youth.

In addition, there are a number of more focused reviews. For example: (1) the systematic review by Bassuk et al. (2014) assesses the impact of housing interventions on family homelessness. (2) Hwang et al. (2005) review the effectiveness of health interventions for homeless populations. (3) Byrne et al. (2013) report studies relate to homelessness amongst female veterans. There are three on-going reviews registered with Campbell which have been identified on the basis of earlier editions of this map.

There are also prevalence reviews related to homelessness, especially related to mental health (e.g. Folson and Jeste, 2002, on schizophrenia, Hodgson et al., 2013, on psychopathology, and Fazel et al, 2008, on mental disorders in general). As these studies are not studies of effects they are not relevant to this map.

Objectives

The proposed evidence and gap map will present studies of the effectiveness of these interventions across a range of outcome domains. Specifically, the objectives of the map are to:

- i. Develop a clear taxonomy of interventions and outcomes related to homelessness in high-income countries
- ii. Map available systematic reviews and primary studies of the effectiveness of interventions for homeless people and those at risk of homelessness, with an overview provided in a summary report
- iii. Provide database entries of included studies which summarize the intervention, context, study design and main findings.

Methodology

Defining evidence and gap maps

This EGM is an effectiveness map in which the primary dimensions are the rows and columns of the map which are, respectively, intervention categories (and sub-categories) and indicator domains (and sub-domains). Secondary dimensions, such as country and target group will be included as filters.

EGM framework

The EGM framework will inform the inclusion and exclusion criteria of the EGM. Here we describe the population, intervention, comparison, outcomes (indicators) and study designs (PICOS) for the map.

Population

The population is individuals and families who are homeless or at risk of becoming homeless.

Population sub-groups of interest are listed under filters.

Intervention

Table 1 lists the intervention categories. Examples of programme names are given in

brackets. These are listed to aid with search and coding. They will not appear in the sub-category label in the map. Some programmes are either multi-component or straddle intervention sub-categories. Examples are Housing First (congregate/scatter site; ACT/ICT) and Homeless Veterans' Reintegration Program. Studies of these interventions can appear in more than one category. The map will have a searchable field (filter) for programme name where these programmes are not included in the intervention sub-categories (see below on filters).

Table 1 Intervention categories and sub-categories

<u>Accommodation</u>	Accommodation (excluding emergency accommodation) with minimal or no support services. This includes: community-led housing; modular homes; private rented sector; social housing; temporary accommodation.
<u>Accommodation with support services</u>	Accommodation (excluding emergency accommodation) combined with some form of support services. This includes: housing first; rapid rehousing; supported accommodation; hostels; women's refuges.
<u>Accommodation-based support services</u>	Accommodation (excluding emergency accommodation) based support services. This includes continuum of care / staircase; coordinated assessment; floating support; housing advice; landlord / tenant mediation; tenancy training.
<u>Armed forces</u>	Interventions targeted at people in the armed forces. This includes: induction and initial training; on-going development and support; discharge from armed services.
<u>Arts, sports and culture</u>	Mainstream and specialist arts, sports and cultural activities.
<u>Communication and campaigns</u>	Communications and campaigns interventions. This includes: behavioural insights approaches; government information campaigns; lobbying; public influencing campaigns.
<u>Crime and justice</u>	Crime and justice interventions related to homelessness. This includes: courts; enforcement and criminalisation; policing; prison; probation and rehabilitation.
<u>Direct donations and relief grants</u>	Direct donations to people who are homeless or at risk of homelessness.
<u>Education and skills and employment</u>	Education and vocational training for adults.
<u>Health and social care: mainstream</u>	Mainstream health and social care interventions (e.g. in a regular doctor's surgery or hospital). This includes interventions in mainstream: adult social care; children in care services; physical health; substance misuse; mental health; discharge from health and social care; co-location or embedded in mainstream service.
<u>Health and social care: specialist</u>	Specialist homelessness health and social care interventions (i.e. not within mainstream systems). This includes specialist: children in care services; psychologically informed environments; adult social care; physical health; substance misuse; mental health; case management / critical time intervention.
<u>Public policy for housing and homelessness</u>	General macro level housing or homelessness public policy / legislation. This includes: financing models; housing / planning policies; homelessness policies.
<u>Public policy - other</u>	Wider macro level public policy in non-housing/homelessness areas. This includes: conditionality; crime, justice and the law; education; health and social care; immigration; integrating services; transport; welfare benefits.
<u>Social relationships and community</u>	Social relationship and community interventions. This includes: befriending, mentoring and coaching; family mediation; social / community networks.
<u>Technology</u>	Technology interventions. This includes: apps and websites; digital inclusion; systems.

Indicators (Outcomes)

The indicator domains are shown in Table 2. There are seven domains: (1) access to services, (2) crime/criminalization, (3) housing stability, (4) health (including substance abuse), (5) employment and income, (6) capabilities and wellbeing, and (7) Public attitudes and participation.

Table 2 Indicator domains

<u>Domain</u>	<u>Sub-domains</u>
<u>Access to services</u>	<u>Health care (primary, secondary and tertiary care)</u> <u>Welfare benefits.</u> <u>Other services.</u>
<u>Crime and justice</u>	<u>Arrest and imprisonment (including criminalisation of street homeless people)</u> <u>Recidivism</u> <u>Victims of crime</u>
<u>Housing stability</u>	<u>Accommodation / housing status</u> <u>Satisfaction with housing</u>
<u>Health (inc substance abuse)</u>	<u>Abstinence from substance abuse</u> <u>Physical health and nutrition status</u> <u>Mental health status</u>
<u>Employment and income</u>	<u>Employment status (paid and unpaid work)</u> <u>Skills</u> <u>Earned income</u> <u>Forced labour / labor and sex work</u>
<u>Capabilities & Wellbeing</u>	<u>Skills in self-care management, safe community participation, food & money management</u> <u>Community engagement and social connectedness.</u> <u>Overall wellbeing/quality of life.</u>
<u>Public attitudes and participation</u>	<u>Public understanding of homelessness</u> <u>Support for interventions for homelessness</u> <u>Fundraising</u> <u>Public engagement in homelessness-related activities</u>
<u>Cost</u>	<u>Cost effectiveness</u> <u>Savings</u> <u>Cost per participant</u>

Criteria for including and excluding studies

Types of study designs

The map will include studies of effectiveness, that is experimental and non-experimental impact evaluations with a design which controls for selection bias. The following designs will be included: RCTs, natural experiments, regression discontinuity, propensity score matching, difference in difference, instrumental variables, other matching designs, and before versus after designs.

The map will also include systematic reviews of effects which include studies from high-income countries.

Comparison: Studies with active and passive controls and with no comparison group will be included.

Treatment of qualitative research

We do not plan to include qualitative research in this map. A separate map is being prepared which will include process evaluations.

Types of settings

Studies will be from high-income countries. A high-income economy is defined by the World Bank as a country with a gross national income per capita US\$12,055 or more in 2018, calculated using the Atlas method. (World Bank, 2018)

Status of Studies

On-going studies will be included. Status of studies will be a filter.

Search strategy and status of studies

On account of the need for early results for CHI the map is being produced in stages:

- Stage 1 will map the approximately 140 studies identified by Munthe-Kaas et al. (2016) plus around 30 systematic reviews identified during scoping. This map was published in mid 2018.
- Stage 2 will map the results from the full database search, including both primary studies and systematic reviews. This map was published in March 2019.
- Stage 3 will be the version of the map published in the Campbell Library. In addition to the above we will (1) search additional websites for grey literature, (2) screen all included studies in included systematic reviews, (3) consult experts, and (4) screen submissions received in response to dissemination of the stage 1 & 2 map.

The databases to be searched are as follows:

1. Academic databases

- Econlit
- The National Bureau of Economic Research (NBER)
- Social Science Research Network (SSRN)
- International Bibliography of Social Sciences (IBSS)
- Applied Social Sciences Index and Abstracts (ASSIA)
- Social Service Abstract
- Embase
- PubMed
- PsycINFO
- MEDLINE
- WHO's Global Health Library
- CABI's Global Health
- ERIC

- CINHAL
- SCOPUS
- Web of Science
- EPPI Centre Evaluation Database of Education Research

2. Evidence and Gap Map database

- 3ie Evidence and gap map repository
- Global Evidence Mapping Initiative
- Evidence based Synthesis Program (Department of Veteran affairs)

3. Systematic review databases

- Swedish Agency For Health Technology Assessment and Assessment of Social Services
- Collaboration for Environmental Evidence
- Cochrane
- Cochrane
- Campbell
- 3ie Systematic Review Database
- Research for Development
- Epistemonikos

Sample search terms are listed in Annex 1.

We will also undertake a more limited search of French and Norwegian academic databases:

French Norwegian

Scholar.google.fr Scholar.google.no

Cairn.info

Persee.fr

All titles and abstracts, and then full text, will be double screened, with a third party arbitrator in the event of disagreement.

Websites

In addition to electronic studies, we shall search and screen publications from the following websites.

Homeless Hub <https://www.homelesshub.ca/>

European observatory on homelessness <https://www.feantsaresearch.org/en/publications>

United State interagency council on homelessness <http://www.usich.gov/>

EThOS <http://ethos.bl.uk/Home.do>

WHO ICTRP <http://apps.who.int/trialsearch/>

Focus on Prevention <http://www.preventionfocus.net/>

Social Policy and Practice <http://www.spandp.net/>

100,00 home campaigns https://en.wikipedia.org/wiki/100,000_Homes_Campaign

Anti poverty committee https://en.wikipedia.org/wiki/Anti-Poverty_Committee

Back on my feet [https://en.wikipedia.org/wiki/Back_on_My_Feet_\(non-profit_organization\)](https://en.wikipedia.org/wiki/Back_on_My_Feet_(non-profit_organization))

Feantsa <https://www.feantsa.org/>

National Coalition Homeless <https://nationalhomeless.org/>

Homelessness Australia <https://www.homelessnessaustralia.org.au/>

Mission Australia <https://www.missionaustralia.com.au/publications/position-statements/homelessness>

National Alliance to end homelessness <https://endhomelessness.org/>

Institute of global homelessness <https://www.ighomelessness.org/>

Homelessness link <https://www.homeless.org.uk/>

Crisis <https://www.crisis.org.uk/about-us/how-we-work/>

Housing first <https://housingfirsteurope.eu/about-the-hub/>

Canadian Alliance to end homelessness <https://housingfirsteurope.eu/about-the-hub/>

Social work and policy institutes <http://www.socialworkpolicy.org/research/homelessness.html>

Association of housing advice services <https://www.ahas.org.uk/>

Centre point <https://centrepoin.org.uk/>

Homelessness trust funds <https://housingtrustfundproject.org/htf-elements/homeless-trust-funds/>

Melville charitable trust <https://melvilletrust.org/category/resources-reports/>

Conrad H Hilton foundation <https://www.hiltonfoundation.org/priorities/homelessness#resources>

Abt Associates <https://www.abtassociates.com/>

Mathematica <https://www.mathematica-mpr.com/>

American Institutes of Research <https://www.air.org/>

Rand <https://www.rand.org/>

MDRC <https://www.mdrc.org/>

Data extraction, coding and management

Coding will be done independently by two coders, with a third party arbitrator in the event of disagreement. The coding form is given in Annex 2.

Critical appraisal

Critical appraisal of primary studies shall be conducted using the tool contained in Annex 3.

The quality of the included systematic reviews will be assessed using AMSTAR 2.

Analysis and presentation

Unit of Analyses

Each entry in the map is a report or paper. Hence, in principle, there may be multiple entries from a single study. If any study accounts for more than 10 papers or reports that study shall be included as a filter. The accompanying EGM report will identify the number of studies covered by the map and list those studies with multiple papers in an annex.

Presentation

The intervention and outcomes, described above, are the primary dimensions of the map.

In addition to intervention and outcomes, the following filters will be coded for primary studies (and reviews where appropriate):

- (1) Population sub-groups of interest include: People who are sleeping rough; Youth / Young People; women; families with children / Households with children; survivors of domestic violence/abuse; LGBT; older people; discharged from health facilities; people with, or with history of, mental health problems/illness; people with alcohol or drugs issues; people with complex needs / dual diagnosis (e.g. alcohol and mental health issues); HIV positive; veterans/ Ex-services; migrants (national and international) / Non-nationals ; ex-prisoners; people with disabilities; and rural areas.
- (2) Specific programmes and approaches: Housing First, Homeless Veterans' Reintegration Program, contingent approaches, non-contingent approaches
- (3) Study designs: RCTs, natural experiments, regression discontinuity, propensity score matching, difference in difference, instrumental variables, other matching design.
- (4) Global Region (World Bank categories)
- (5) Country
- (6) National region (e.g. state in the US, or country in UK such England)
- (7) Language of study (English, French or Norwegian).

Planned analyses

The EGM report shall provide tabulations or graphs of the number of studies, with accompanying narrative description, by

- Intervention category and sub-category
- Outcome domain and sub-domain
- Table of 'aggregate map' of interventions and outcomes
- Region and country
- Year
- Study type

The report will contain a network analysis of authors of included papers (see Rousseau et al. 2019: Chapter 10). In the network figure each author will be represented by a circle, with size proportional to number of studies authored. and lines connecting co-authors. The network

... will allow identification of prominent authors and clusters of authors.

Stakeholder engagement

The framework was developed through a consultative process:

Stage 1: Two existing frameworks were considered as a basis for the framework to be used for this map: (1) the intervention categories used by Munthe-Kaas et al. (2016), and (2) the categories provided by Crisis (which are used in the SCIE, 2018, review)

Stage 2: The proposed framework was reviewed by staff of Crisis and a group of UK academics specializing in homelessness (I-SPHERE) and revised on the basis of their comments and further discussion with the Director of the new What Works Centre for Homelessness.

Stage 3: A group of homelessness researchers and practitioners reviewed the categories in an interactive exercise to fit the identified papers into the categories, resulting in further revision of those categories.

The map will be discussed with the Advisory Group for the Centre for Homeless Impact and presented at consultations organized by the Centre.

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EGM authors

Lead EGM author: The lead author is the person who develops and co-ordinates the EGM team, discusses and assigns roles for individual members of the map team, liaises with the editorial base and takes responsibility for the on-going updates of the map.

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Roles and responsibilities

Content: Ligia Teixeira and Suzanne Fitzpatrick. Ligia Teixeira is Director of the new UK Centre for Homelessness Impact. Professor Suzanne Fitzpatrick has been researching homelessness for two decades with many scientific and official publications on the topic, and is editor of the *International Journal of Housing Policy*.

Evidence gap methods: Howard White and Ashrita Saran, who have co-authored a paper on mapping methods used by different agencies. Howard White assisted development of Campbell guidelines and standards for Evidence and Gap Maps.

Information retrieval: Ashrita Saran and Howard White. Ashrita Saran has received training on search strategies and authored strategies for other evidence synthesis products. The search strategy was adopted from that used by Munthe-Kas et al. (2016). The strategy was reviewed by John Eyres (IDCG Search Specialist) before submission. Audrey Portes will be part of the screening and coding team, and undertake searches for studies in French and Norwegian.

Project management: Audrey Portes will manage the project to ensure timely delivery.

Sources of support

Production of the map has been supported by the UK Centre for Homelessness Impact, with in-kind support from the Campbell Collaboration Secretariat.

FHI is providing in-kind support through the generous provision of all studies subject to full text screening for the review by Munthe-Kaas et al. (2016).

Declarations of interest

Ligia Teixeira is Director of the Centre for Homelessness Impact. This role should not provide any conflict as CHI's mission is to make evidence available. Suzanne Fitzpatrick is a leading researcher in the area so some her studies may be eligible for inclusion in the map.

Preliminary timeframe

Approximate date for submission of the EGM: November 8th 2018.

Plans for updating the EGM

The Centre for Homelessness Impact has agreed to provide resources to update the map every two years. The EGM team are in discussions with the EPPI Centre, who are responsible for the mapping software, about possible real time updating through (1) automated searches with machine-learning powered screening, and (2) moderated submissions of suggested papers.

Annex 1 Sample Search String

Search string/Key words (For Ovid Medline platform)

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Study design key words

- ("quasi experiment*" or quasi-experiment* or "random* control* trial*" or "random* trial*" or RCT or (random* adj3 allocat*) or matching or "propensity score" or PSM or "regression discontinuity" or "discontinuous design" or RDD or "difference in difference*" or difference-in-difference* or "diff in diff" or "case control" or cohort or "propensity weighted" or propensity-weighted or "interrupted time series" or (before adj5 after) or (pre adj5 post) or ((pretest or pre test) and (posttest or post test)) or "research synthesis" or "scoping review" or "rapid evidence assessment" or "systematic literature review" or "Systematic review" or "Meta-analy*" or Metaanaly* or "meta analy*" or "Control* evaluation" or "Control treatment" or "instrumental variable*" or heckman or IV or ((quantitative or "comparison group*" or counterfactual or "counter factual" or counter-factual or experiment*) adj3 (design or study or analysis)) or QED or evaluation).ti,ab,kw

- OR

- clinical trial/ or clinical trial, phase i/ or clinical trial, phase ii/ or clinical trial, phase iii/ or clinical trial, phase iv/ or controlled clinical trial/ or randomized controlled trial/ or pragmatic clinical trial/

- controlled clinical trials as topic/ or non-randomized controlled trials as topic/ or randomized controlled trials as topic/ or pragmatic clinical trials as topic/ or case-control studies/ or retrospective studies/ or controlled before-after studies/ or interrupted time series analysis/ or random allocation/ or cohort studies/ or follow-up studies/ or longitudinal studies/ or prospective studies/ or retrospective studies/ or propensity score/ or regression analysis/ or evaluation studies/ or matched-pair analysis

-

("meta regression" or "meta synth*" or "meta-synth*" or "meta analy*" or "metaanaly*" or "meta-analy*" or "metanaly*" or "metaregression" or "metaregression" or "methodologic* overview" or "pool* analys*" or "pool* data" or "quantitative* overview" or "research integration").ti,ab,sh.

OR

(review adj3 (effectiveness or effects or systemat* or synth* or integrat* or map* or methodologic* or quantitative or evidence or literature)).ti,ab,sh.

Qualitative review search term

((("meta ethnography" OR "meta ethnographic") OR ("meta synthesis") OR (synthesis AND ("qualitative literature" OR "qualitative research"))) OR ("critical interpretive synthesis") OR ("systematic review" AND ("qualitative research" OR "qualitative literature" OR "qualitative studies"))) OR ("thematic synthesis" OR "framework synthesis") OR ("realist review" OR "realist synthesis") OR (((("qualitative systematic review" OR "qualitative evidence synthesis"))) OR ("qualitative systematic reviews" OR "qualitative evidence syntheses"))) OR (("quality assessment" OR "critical appraisal") AND ("qualitative research" OR "qualitative literature" OR "qualitative studies"))) OR (("literature search" OR "literature searching" OR "literature searches") AND ("qualitative research" OR "qualitative literature" OR "qualitative studies")) OR ("meta narrative" OR "meta narratives" OR "narrative synthesis")

Homelessness key words

HOMELESSNESS KEY WORDS

- homeless persons/ or homeless youth/
- (evict* or homeless* or "housing excl*" or "residential stability" or ((street* or private or improvised or shelter* or emergency or temporary or insecure or overcrowded or precarious or stable or marginal*) adj3 (dwell* or house* or housing or accommodation)) or (street adj3 (life or living or lives or youth* or child* or people or person*)) or runaway* or "Run away from home" or "Running away" or "Ran away" or "Going missing" or "Bag lady" or Houseless* or Unhoused or "without a roof" or Roofless or (rough adj3 sleep*) or Destitut* or "Skid row*" or "sleepers out").ti,ab,kw.
- ("Housing first" or "Pathways to Housing" or "Homeless Veterans Reintegration Program" or "Access to Community Care and Effective Services and Supports" or "Support* Housing Program" or "Housing and Urban Development–Veterans Affairs Supported Housing program" or "HUD-VASH" or "Sober Transitional Housing and Employment Project" or "sober house placement*" or "Housing ladders" or "Staircase housing" or "low threshold housing" or "Critical Time Intervention").ti,ab,kw.

Annex 2 Key items from coding form

Study characteristics

1. Study design
 - 1.1 Systematic review
 - 1.2 RCT
 - 1.3 natural experiments
 - 1.4 Quasi-experimental
 - 1.5 Cohort
 - 1.6 Cross-sectional
 - 1.7 Mixed Method
 - 1.8 other matching design
2. Status of study
 - 2.1 Completed
 - 2.2 Ongoing
3. Systematic review quality
 - 3.1 Low
 - 3.2 Moderate
 - 3.3 High
 - 3.4 Not applicable (Primary study)
4. Study region
 - 4.1 East Asia and Pacific
 - 4.2 Europe and Central Asia
 - 4.3 Latin America & the Caribbean
 - 4.4 Middle East and North Africa
 - 4.5 North America
 - 4.6 South Asia
 - 4.6 Sub-Saharan Africa
 - 4.7 National Region: state in the US, or country in UK such England

Population

- 5.1 Youth / Young People; women
- 5.2 families with children / Households with children
- 5.3 survivors of domestic violence/abuse
- 5.4 LGBT
- 5.5 older people
- 5.6 discharged from health facilities
- 5.7 people with, or with history of, mental health problems/illness
- 5.8 people with alcohol or drugs issues; people with complex needs / dual diagnosis (e.g. alcohol and mental health issues)
- 5.9 HIV positive
- 5.10 veterans/ Ex-services

5.11 migrants (national and international) / Non-nationals

5.12 ex-prisoners

5.13 people with disabilities

5.14 rural areas

6 Intervention

6.1 Accommodation

6.2 Accommodation with support services

6.3 Accommodation-based support services

6.4 Armed forces

6.5 Arts, sports and culture

6.6 Communication and campaigns

6.7 Crime and justice

6.8 Direct donations and relief grants

6.9 Education and skills and employment

6.10 Health and social care: mainstream

6.11 Health and social care: specialist

6.12 Public policy for housing and homelessness

6.13 Public policy - other

6.14 Social relationships and community

6.15 Technology

7. Outcomes

7.1 Access to services

7.1.1 Health care (primary, secondary and tertiary care)

7.1.2 Welfare benefits.

7.1.3. Other services.

7.2 Crime and justice

7.2.1 Arrest and imprisonment (including criminalisation of street homeless people)

7.2.2. Recidivism

7.2.3 Victims of crime

7.3 Housing stability

7.3.1. Accommodation / housing status

7.3.2 Satisfaction with housing

7.4 Health (inc substance abuse)

7.4.1 Abstinence from substance abuse

7.4.2 Physical health and nutrition status

7.4.3 Mental health status

7.5 Employment and income

7.5.1 Employment status (paid and unpaid work)

7.5.2 Skills

7.5.3 Earned income

7.5.4 Forced labour / labor and sex work

7.6. Capabilities & Wellbeing

7.6.1 Skills in self-care management, safe community participation, food & money management

7.6.2 Community engagement and social connectedness.

7.6.3 Overall wellbeing/quality of life.

7.7 Public attitudes and participation

7.7.1 Public understanding of homelessness

7.7.2 Support for interventions for homelessness

7.7.3 Fundraising

7.7.4 Public engagement in homelessness-related activities

- 7.8 Cost
- 7.8.1 Cost effectiveness
- 7.8.2 Savings
- 7.8.3 Cost per participant

Annex 3 Critical appraisal tool for primary studies

Item	Point in time (where applicable)	Rating	
1a	Study design (Potential confounders taken into account)	End of intervention	High confidence: RCT, RDD, ITT, instrumental variable Medium confidence: DiD with matching, PSM Low confidence: other matching
1b	Study design (Potential confounders taken into account)	Longest follow up (if applicable)	Study design may change at post endline follow up, usually loss of RCT as control becomes treated. Same codes as 1a
2	Masking or blinding (RCTs only)		High confidence: any blinding or any mention of blinding Medium confidence: no blinding Low confidence is not used for this item
3	Power calculations are reported		High confidence: any mention of power calculations as basis for sample size Medium confidence: no mention of power calculations Low confidence is not used for this item
4a	Losses to follow up are presented and acceptable*	End of intervention	High: attrition within IES bounds Medium: attrition within IES liberal bounds Low: attrition not reported or attrition outside IES bounds N/A for ex post studies
4b	Losses to follow up are presented and acceptable*	Longest follow up (if applicable)	High: attrition within IES bounds Medium: attrition close to IES bounds Low: attrition not reported or attrition outside IES bounds N/A for ex post studies
5	Intervention if clearly defined		High confidence: intervention clearly and fully described Medium confidence: brief description of intervention Low confidence: intervention named but not described, or not named
6	Outcome measures are clearly defined and reliable		High confidence: outcome measure clearly and fully described, preferably with reference to validation Medium confidence: brief description of outcome Low confidence: outcome named but not described
7	Baseline balance (N.A. for before versus after)		High confidence: RCT or baseline balance report and satisfactory (imbalance on 2 or

		less measures) Medium confidence: Imbalance on no more than 5 measures Low confidence: Baseline balance not reported, or reported and lack of balance on more than 5 measures
Overall confidence in study findings	End of intervention	Lowest rating across items 1a, 4a, 6 and 7
Overall confidence in study findings	Longest follow up (if applicable)	Lowest rating across items 1b, 4b, 6 and 7 (N/A if 1b and 4b N/A)
* See table 1 https://homvee.acf.hhs.gov/HomVEE-Attrition-White_Paper-7-2015.pdf		