Evidence and Gap Maps on Homelessness. A launch pad for strategic evidence production and use

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Part 1: Global Evidence and Gap Map of Effectiveness Studies

Second edition
About this report

The mission of the Centre for Homelessness Impact is to improve the lives of those experiencing homelessness by ensuring that policy, practice and funding decisions are underpinned by reliable evidence.

To achieve this mission the Centre will contribute to the building of an evidence architecture for use by policy makers and practitioners. As first steps toward constructing this architecture, the Centre worked with the Campbell Collaboration and Heriot-Watt University to produce two evidence maps. These maps document the available evidence related to (1) the effectiveness of interventions to improve the welfare of individuals and families who are experiencing homelessness or at risk of homelessness, and (2) issues arising in the implementation of programmes for anyone experiencing homelessness.

This report is a second edition of the report which presents the findings from the first of these maps. This edition includes an additional 34 studies in the map, bringing the total number of studies to 260. It also presents the results of critical appraisal of the studies in the map. The second report in this series, on the process evaluations map, will also be updated to include critical appraisal.

These reports underpin two new digital tools - the Evidence Finder and Evidence Gap Map - available on the Centre for Homelessness Impact’s website.
About the Centre for Homelessness Impact

The Centre for Homelessness Impact champions the creation and use of better evidence for a world without homelessness. Our mission is to improve the lives of those experiencing homelessness by ensuring that policy, practice and funding decisions are underpinned by reliable evidence.

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Foreword

Ending homelessness is one of the great social justice causes of our times. The government has tried to tackle the problem of homelessness on nearly every level, but comprehensive solutions have proven elusive, despite many millions being spent over time. Ambitious goals for ending homelessness have now been set across the UK, but achieving them won’t be easy.

To help ensure the best chance of success before we intervene in people’s lives, we need to consider the best available evidence of what works (and what does not) or risk wasting opportunities and doing harm. To focus our efforts more effectively, we first need to improve our understanding of the evidence that currently exists. We need to identify what we know, where our understanding could be strengthened, and where there are still gaps to be filled.

Until recently there were no reliable evidence tools to help us identify what we know and what we don’t. Evidence was scattered around different databases, journals, websites, and in grey literature, and there is no way for decision makers to get a quick overview of the existing evidence base. This was a barrier to using evidence to improve outcomes.

To address this challenge we created two evidence and gap maps that capture what we know about what works and why things work or not on homelessness interventions in partnership with the Campbell Collaboration and Heriot-Watt University.

We are committed to creating the architecture required to make smart policy decisions and the EGMs are a useful first step for taking stock and begin to do just that. By making relevant studies more accessible to end users, they facilitate evidence-informed decision making. Because they highlight areas of high policy relevance where evidence is lacking, EGMs can also help research funders target their resources to fill important evidence gaps faster, more cost-effectively, and in a more strategic and impactful way.
This report presents findings from our first map, that focuses on causal or ‘what works’ evidence (impact evaluations and effectiveness reviews). The map shows there is a dearth of causal evidence in the UK despite the significant number of resources devoted to evaluation each year. It’s not all bad news. We found that there has been an increase in the number of rigorous studies in recent years. Prior to 2000, there were just under two studies a year published, an average of four a year from 2000 to 2009, and since 2010 nearly 10 a year.

We were pleased to find that studies exist in most outcome areas because this means an evidence base exists on which to build an infrastructure for evidence-informed policy and practice. But there are some important caveats: the vast majority of the evidence is from North America, only 12 studies are from the UK, and most of these are from London. International studies are useful, but differences in context may mean that approaches that worked elsewhere work less well, or better, here. It is therefore vital that local studies of promising interventions are carried out.

This second edition of the map includes additional studies found by a more extensive search. It also adds the results of a critical appraisal of the studies which tells us the confidence we can have in study findings. Overall this confidence is low for the majority of studies (largely due to attrition). We believe that better studies will help create better policies so hope the analysis will inform the design of future studies.

I urge the homelessness field to reflect on the findings presented in the maps and to act to improve the evidence architecture. It is only by embedding reliable evidence and data analysis deep in decision-making processes and structures that we will achieve a society that leaves no one behind. The Centre will undertake, in collaboration with other agencies, a programme of action to fill gaps in the evidence, so that over time the maps come to be used as a standard reference for evidence creation and use.

The need for greater emphasis on evidence in homelessness is abundantly clear. It has the capacity to make efforts to tackle homelessness more effective. Over the last few years, spending
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on homelessness has increased. Although funding commitments are important, simply throwing more money at this complex and multifaceted problem is unlikely to create lasting change. Using evidence more effectively will help to achieve better results.

I hope that this report and related digital tools – and its annual sequels – will make a significant contribution to the dialogue and decision making on homelessness in years to come and lead to more strategic use of, and investment in, reliable evidence.

Dr Ligia Teixeira
Director, Centre for Homelessness Impact
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Executive summary

The Centre for Homelessness Impact is working with the Campbell Collaboration, Heriot-Watt University and Queen’s University Belfast to create Evidence and Gap Maps on homelessness. Evidence and Gap Maps provide quick and efficient tools to highlight what evidence exists for specific interventions and outcomes.

This report captures the Centre’s first map, which focuses on effectiveness studies, in the form of systematic reviews and impact evaluations. It shows relevant evidence organized into an interactive online matrix capturing where there is evidence for different categories of intervention and how they affect a range of outcomes. This second edition of the effectiveness map includes critical appraisal of the studies in the map. The second map, also published in 2018, focuses on process evaluations.

The last twenty years have seen a growth of rigorous studies of effectiveness, measuring impact not inputs. More recently in the United Kingdom and the United States, the What Works movement prioritises making the evidence from existing reviews accessible through developing user-friendly evidence tools. While homelessness has been part of this evidence revolution, this report shows that it has been lagging behind other fields and that more local evidence is needed, as well as the evidence architecture to facilitate use of that evidence.

The Evidence and Gap Maps are a first step toward building the infrastructure necessary to end homelessness more effectively.

The main finding from the map of effectiveness is that there are many studies - the map includes 238 studies of specific interventions, and 22 systematic reviews. However, this evidence is not evenly distributed, and the studies mostly do not allow us to have high confidence in study findings.

The evidence is most heavily concentrated in (1) health and social care interventions, followed by (2) housing-related interventions.
Within these categories, evidence is focused on some types of intervention. Yet there can be vast discrepancies in the number of studies for different interventions. For instance, while there are many studies of Housing First, there are none of reconnection programmes. Where there are such evidence gaps primary studies are needed. Where there are many studies a systematic review would be useful for guiding policy.

But even where there is evidence the critical appraisal finds that the majority of studies only allow low confidence in study findings. This low confidence largely results from high levels of attrition amongst study participants.

The most comprehensive systematic review of the sector to date, published by the Campbell Collaboration in 2018, reports that many interventions are effective in improving housing stability. But not everything works, and not everything is equally effective. The map shows that very few high-quality evaluations exist in the UK despite the significant number of resources devoted to evaluation each year. And most importantly, data on cost effectiveness is lacking.

The Centre for Homelessness Impact has carried out a consultation exercise to identify priority evidence needs for which evidence is lacking and then fill those gaps, either directly or indirectly. It is also working with key stakeholders to support them in undertaking rigorous evaluation of their programmes. The Centre believes an end to homelessness is an achievable goal, one it will help attain through its contribution to building the evidence architecture for homelessness.
Chapter 1

About Evidence and Gap Maps

The challenge of an evidence-based approach to ending homelessness

Large numbers of people are affected by homelessness; over half a million in the United States and some 178,000 households in Great Britain approached their local authority for statutory assistance last year.1 Although these numbers are contested, what is certain is that they only represent a fraction of the problem. There are many people living in unsafe or precarious situations. Crisis estimates there are 160,000 households experiencing the most acute forms of homelessness including rough sleeping, sofa surfing and sleeping in cars and tents.2 Added to this are people living in unstable housing or at risk of homelessness: Shelter estimates more than 300,000 people to be experiencing homelessness across Britain.

The social costs and consequences of homelessness are substantial. People affected by homelessness are ten times more likely to die than those of a similar age in the general population. Spending to reduce homelessness has been estimated to save the public purse nearly £10,000 per homeless person.3

Such calculations assume that programmes to reduce homelessness are effective. Yet, to date, relatively few interventions have been rigorously evaluated and fewer still have shown positive results. This statement may come as a surprise to many, since there are numerous evaluations of programmes for the homeless.

1 Figures taken from the Ministry for Housing Communities and Local Government, Live tables on homelessness; The Scottish Government, Homelessness statistics; The Welsh government, Homelessness statistics.
3 Crisis: The cost of homelessness
But testing whether programmes are effective – that is the impact of these programmes – requires certain evaluation designs to be used (see Box 1 on evaluation approaches). Evidence from such studies are driving the emerging ‘What Works’ movement across the world.

The Centre will bring the homelessness sector into the ‘What Works’ movement and so contribute to ending homelessness by identifying the most effective approaches to provide secure and stable housing for all. There is also a need for rigorous evidence of effective approaches to help address the problems many homeless people face which result in them falling back into homelessness.

Until the publication of this map, there as no single resource which allowed policymakers, practitioners and researchers to access the available relevant evidence as to which programmes work. The Centre for Homelessness Impact is a ‘one stop shop’ for evidence for policymakers and practitioners in the sector. As a first step, working with the Campbell Collaboration and Heriot-Watt University, the Centre is producing two evidence maps on homelessness. This report examines the map of effectiveness studies of what works to improve the welfare of those experiencing homelessness. We start with some background on evidence-based policy and practice.
The rise of Evidence-Based Policy and Practice

The language of evidence is now common internationally across many sectors, and its origins can be traced to the New Public Management of the late 1980s. This approach led to the adoption of ‘the results agenda’ and focussed on measuring success by outcomes instead of inputs. But to measure impact we cannot simply rely on measuring how outcomes have changed over time, since they are subject to change even in the absence of intervention. To deal with this challenge we require impact evaluations (see Box 1).

Most impact evaluations compare what happens to a group benefitting from a programme to that which happens to a similar group who do not participate. This group of non-participants is called the ‘comparison group’ or ‘control group’. The comparison group cannot just be any group of non-participants, they should have the same characteristics as those who benefit from the programme – similar employment histories or educational background, for example. A good way to ensure comparability between the groups is to identify those who are eligible for the programme and then assign them at random to the programme and control groups. This is called a randomised controlled trial (RCT).

Randomised controlled trials of social programmes have been undertaken since the 1940s but have seen a resurgence since the 1980s, especially in the last 15 years, with growing use in policy. A striking example of their use can be found in ‘hotspot policing’ that focusses police on high-crime hot spots. An RCT conducted in Minnesota in the late 1980s showed the approach reduced crime. Subsequent trials across the United States and in other countries found similar results, as summarised in a Campbell Collaboration review published in 2008. Based on this evidence, hot spot policing has been widely adopted.

More importantly, a culture of evidence use is now commonplace in policing, and several countries now have Societies for Evidence
Based Policing, bringing together researchers and working police officers. Similarly, courses on evidence-based policing are offered in leading research institutions.

Just keep testing: 5 principles for evidence-based policy and practice

- Access to synthesized evidence across all studies
- Consult evidence base to inform design
- Testing in local context
- Keep testing as roll out to new populations / contexts / design features
- If it works go to scale with promising components: effectiveness studies
- Pilot programme: efficacy studies
Box 1

Different types of evaluation studies

Formative evaluations

Formative evaluations are used in the early stages of a new programme, or an existing programme in a new context, to test the feasibility of the programme. Common problems exposed by formative evaluations are that interventions: (1) have low acceptability amongst the target population, (2) are not implementable because of, for example, over-complex designs or unrealistic demands on available resources, e.g. the time of case workers, and (3) technical aspects may fail under field conditions. The results of formative evaluations inform the decision whether to continue with a programme, and any changes which may be needed in design.

Process evaluations

Process evaluations may be conducted at any time during an intervention. They are mostly based on qualitative data from interviews with beneficiaries, implementers and other key stakeholders. Process evaluations document issues which may have arisen in the design and implementation of the programme, and so are useful for mid-course corrections or planning scale up.

Impact evaluations

Impact evaluations are usually conducted at the end of an intervention, or some time after it has been completed. They measure what difference the programme made, usually focusing on higher-level outcomes, such as housing stability and health status. Impact evaluation designs usually include an explicit counterfactual measured using a comparison group. The findings inform decisions whether to continue or scale up programmes, or to look for other, more effective, approaches.
For example, in 2011 Stephen Williams, a police officer from Trinidad and Tobago, attended a course at the University of Cambridge by Larry Sherman, the professor who conducted the 1980s Minnesota study. A year later, Williams became acting Commissioner of the Trinidad and Tobago police and invited Sherman to give a series of courses on evidence-based policing. Subsequently Sherman and Williams implemented an RCT of hot spot policing in the country, rolling the programme out based on its findings.

Impact evaluations have also played an important role in other sectors in developing countries. The best known examples are studies of conditional cash transfers (CCT), which are grants made to poorer families on the condition that they engage in certain terms of the social contract—like sending their children to school. The first such study was an RCT of the Progresa programme in Mexico, which started in the mid-1990s. The study showed the positive impact of the CCT on poverty, and access to health and education. These findings convinced the new government — and successive governments — to maintain the programme. A similar story can be told about Colombia’s CCT, Familias en Acción. In Brazil, the president commissioned an impact evaluation of the Bolsa Familia programme to be able to address critics of the programme, especially those who argued it discouraged the poor from entering the labour market. The study showed it did not, and Bolsa Familia continued to expand, reaching over 12 million families by 2012.

The above examples are cases in which programmes have been widely tested.
Another study in Minnesota tested the impact of mandatory arrest of suspected perpetrators of domestic violence. Reoffending by those subject to mandatory arrest was just 13 percent compared to 26 percent for those subject to existing practice (counselling and temporary removal from the scene). The study attracted widespread attention. By the early 2000s, 75 percent of police districts had mandatory arrest programmes. But studies of the programme in five cities found mandatory arrest to be no better than the alternatives and in two cases it was worse. The authors of the original Minnesota study said they thought the evidence from their study did not warrant a scale up of the programme. Evidence-based policy is not a blueprint approach. What worked in one place has to be tested for adoption elsewhere.

For example, with Nurse Family Partnership, a home visitation programme for young mothers from disadvantaged backgrounds, three studies in the United States found positive impacts from the intervention. NFP was widely adopted on the basis of this evidence. But RCTs of NFP in the UK and the Netherlands found its effects to be weak or non-existent. The likely explanation is the difference in context. The control group in these studies get ‘usual services’, which in European countries includes good quality health services. In other words, the control group gets services very similar to NFP so the programme has no impact in that context.

An evidence-based approach should not rely on single studies. In order to guide policymakers considering adopting new programmes or redesigning existing ones it is useful to pull together all existing evidence on programme effectiveness. This is true for homelessness just as much as it is for fields like policing and international development. This is done by systematic reviews. The systematic approach of systematic reviews avoids possible sources of bias in traditional literature reviews.
But systematic reviews are often long academic reports so knowledge brokering is necessary to make this evidence available to policymakers and practitioners. In the last few years evidence platforms, or evidence portals, have become widely available, like those provided by the What Works Centres in the United Kingdom and the What Works Clearinghouses in the United States. The Education Endowment Foundation’s Teacher and Learning Toolkit is a leading example. A survey by the UK National Audience Office found that 66 percent of school managers reported using the toolkit to help decide how to allocate school resources.
Prior to the tools developed by the Centre, there is has been such evidence architecture for the homelessness sector. The Centre for Homelessness Impact is making its first investments in developing this architecture, starting with two Evidence and Gap Maps and a series of systematic reviews.

What is an Evidence and Gap Map?

An Evidence and Gap Map (EGM) is a presentation of the available, relevant evidence for a particular sector. A map shows what evidence is available in existing studies for a particular sector. Different types of evidence are needed to address different questions, so maps are made for particular types of evidence. We are producing maps for both impact evaluations (the effectiveness map) and process evaluations (the implementation issues map).
The map is a table or matrix which provides a visual presentation of the evidence. In the homelessness map the rows are intervention categories and the columns are indicator categories. The indicators also have sub-categories. For example, the employment indicator has four sub-categories: (1) employment status (paid and unpaid work), (2) earned income, (3) forced labour and sex work and (4) access to welfare benefits.
The map has additional dimensions which capture study or intervention characteristics, like study design, location and population sub-group. These can be applied as ‘filters’ in the online versions so that only studies which apply to the specific groups chosen are shown in the map.

The online versions of the map are interactive so that users may click on entries to see a list of studies for any cell in the map. Clicking on study names shows the database record for the study.

**What evidence is included?**

The Evidence and Gap Map of the Effectiveness of Interventions for Homelessness shows the available evidence on the success of interventions in improving the lives of those who experience, or are at risk of experiencing, homelessness.

The map shows both impact evaluations and systematic reviews. Impact evaluations are studies using quantitative approaches to measure what difference the programme made to outcomes like housing stability. Systematic reviews are studies which summarise all available relevant evidence for a particular issue or question. Systematic reviews which summarise evidence from impact evaluations are called ‘effectiveness reviews’. See Box 2 for examples of studies included in the map.

The Campbell Collaboration is an international research network which publishes best practice standards for systematic reviews and evidence maps. The Campbell Library is the global repository of policy-relevant reviews and maps. All reviews and maps produced by the Centre will be produced to Campbell standards and published in the Library.
Box 2

Examples of studies included in the map

**Impact evaluations**

‘Housing Placement and Subsequent Days Homeless Among Formerly Homeless Adults with Mental Illness’ (Goldfinger, 1999)

‘Randomized Trial of Intensive Housing Placement and Community Transition Services for Episodic and Recidivist Homeless Families’ (Levitt, 2013).

**Systematic reviews**

‘Effective Interventions for Homeless Youth: A Systematic Review’ (Altena at al., 2016)

‘Interventions to Improve the Health of the Homeless: A Systematic Review’ (Hwang et al., 2005).

An example of an RCT is a study of Housing First in five Canadian cities: ‘A Multiple-City RCT of Housing First with Assertive Community Treatment for Homeless Canadians With Serious Mental Illness’(Aubry et al., 2015). Participants in the study were homeless or precariously housed people with serious mental illness and were referred to the study team by health and social service agencies. Of 950 referrals classified as high-need participants, 460 were randomly assigned to receive Housing First with Assertive Community Treatment (ACT) with the remaining referrals receiving the usual services provided to this group.
Where randomisation is not feasible, there are non-experimental approaches which use statistical methods to try to ensure the comparability of the comparison group. These approaches have technical names like ‘propensity score matching’ and ‘regression discontinuity designs’. Our evidence standards classify these different methods by the quality of evidence they provide (see Box 3). Different standards will be applied to our map of process evaluations.

The quality of studies included in the map: confidence in study findings

How do we assess confidence in study findings?

Decision-making is preferably guided by high quality evidence. For this reason evidence synthesis often includes a process called critical appraisal. Critical appraisal is the assessment of study quality using explicit, transparent assessment criteria. This is done using a checklist, commonly referred to as a tool. The critical appraisal tool has to be appropriate for the study design. So, two separate critical appraisal tools are used to assess the quality of studies in evidence map: one for primary studies and one for systematic reviews.

The critical appraisal tool used for primary studies is one developed by the Campbell Collaboration for use with maps and reviews. The tool has been developed with the intention of being short, focused on some major issues related to the confidence we can have in the study findings. Indeed, it is more appropriate to speak about confidence in study findings rather than quality which implies a judgement on the research team. But researchers face many constraints in implementing studies. The best study possible under the circumstances may still be one in which we cannot have high confidence in study findings.
The tool has seven items which relate to study design, blinding, power calculations, attrition, description of the intervention, outcome definition and baseline balance. A fuller description of these items is given in the technical appendix. Each of these seven items is rated as implying high, medium or low confidence in study findings. Overall quality is assessed using the ‘weakest link in the chain’ principle: our confidence in study findings can only be as high as the lowest rating given to any of the seven items.\footnote{In fact, as elaborated in the appendix, the overall assessment is based on four of the seven items.}

For systematic reviews we use AMSTAR 2 (‘Assessing the Methodological Quality of Systematic Reviews’). This checklist has 16 items which cover: (1) PICO in inclusion criteria, (2) ex ante protocol, (3) rationale for included study designs, (4) comprehensive literature search, (5) duplicate screening, (6) duplicate data extraction, (7) list of excluded studies with justification, (8) adequate description of included studies, (9) adequate risk of bias assessment, (10) report sources of funding, (11) appropriate use of meta-analysis, (12) risk of bias assessment for meta-analysis, (13) allowance for risk of bias in discussing findings, (14) analysis of heterogeneity, (15) analysis of publication bias, and (16) report conflicts of interest.

Findings

Figure 1a shows the results of the critical appraisal of the 238 included primary studies. Over 60 per cent of all studies are rated as low confidence in study findings, with around one fifth each being each of medium confidence and high confidence.

The high number of studies for which we have low confidence is largely driven by attrition. Attrition is rarely reported in the studies, and differential attrition (the difference in the rate of attrition between the treatment and control groups) was not reported in any study. However, it is often possible to calculate attrition from the data presented in the tables and text. Where this can be done, high rates of attrition are common: Bond et al. (1990) report 34
per cent attrition at 12 month follow up for their study of Assertive Community Treatment. It is not surprising that attrition is high for many of these interventions since they target people with unstable lifestyles, many with histories of mental health issues and substance abuse. Differential attrition is also likely as there is less regular contact with the control group, and they are not receiving the intervention which, if successful, would stabilise their lifestyle.

However, high attrition is not necessarily the case, as shown by the fact that one-third of studies are rated as high on this criterion. This success may be specific to the intervention, e.g. targeted at prisoners who only attrition by refusal, but cannot disappear. But it may also reflect the methods used to track study participants. CHI have commissioned systematic reviews which will seek to identify successful approaches to minimising attrition, and thus produce an advice document for researchers on this issue.
Figure 1a Confidence in study findings: primary studies

Overall: Low Medium High
Baseline balance: Low Medium High
Outcome definition: Low Medium High
Intervention description: Low Medium High
Study design: Low Medium High
Attrition: Low Medium High
Power calculation: Low Medium High
Blinding: Low Medium High
Box 3

Assessing the quality of evidence: study type categorisation

Each study in the map has a rating for the quality of evidence. The quality ratings refer to how confident we can be in the study findings.

One important factor which has an impact on the overall quality ratings is the study type. The categories are:

**High reliability**

- Randomised control trials: A study in which people are randomly assigned an intervention. One group receives the intervention being tested, and a second control group receives a dummy intervention, or no intervention at all. These groups are compared to assess how effective the experimental intervention was.

- Natural experiments: A study in which people are exposed to either experimental or control conditions by natural factors. While not controlled in the traditional sense, the assignment of interventions may still resemble randomised assignment. These groups are compared to assess how effective the experimental intervention was.

**Medium to high reliability**

- Regression discontinuity design: A study in which people are assigned to intervention or control groups based on a cut-off threshold before the start of the test. Comparing the results from either side of the threshold (those who have received an intervention and those who haven’t) provides an estimate of the intervention’s effect where randomisation isn’t possible.

- Interrupted time series: A study that measures a particular outcome at multiple points in time, both before and after the
introduction of an intervention. This aims to show whether the effect of the intervention is greater than any pre-existing or underlying factors over time.

**Low to medium reliability**

- **Instrumental variables**: A statistical modeling approach in which a variable satisfying certain statistical requirements acts as a proxy for participating in the intervention.

- **Propensity score matching**: A study in which participants and non-participants in an intervention are assigned a ‘propensity’ score – a number that represents the probability of a person participating in an intervention based on observed characteristics. Using this score, a third comparison group is created to compare people who have participated in an intervention with those who haven’t, but otherwise share a similar probability of participating.

**Low reliability**

- Other forms of matching

- Difference-in-difference without matching

- Before versus after (pre- post- test) designs

**Not included**

- Case Studies

- Qualitative assessments

For systematic reviews we score each study using the 16 item checklist called AMSTAR 2 (‘Assessing the Methodological Quality of Systematic Reviews’). The 16 items cover: (1) PICOS in inclusion criteria, (2) ex ante protocol, (3) rationale for included study designs, (4) comprehensive literature search, (5) duplicate screening,
6) duplicate data extraction, (7) list of excluded studies with justification, (8) adequate description of included studies, (9) adequate risk of bias assessment, (10) report sources of funding, (11) appropriate use of meta-analysis, (12) risk of bias assessment for meta-analysis, (13) allowance for risk of bias in discussing findings, (14) analysis of heterogeneity, (15) analysis of publication bias, and (16) report conflicts of interest.

For both primary studies and reviews the overall assessment is based on the lowest rating given to any one of the critical items in the list.

We score reviews as follows:

- High reliability: 13-16
- Medium to high reliability: 10-12
- Low to medium reliability: 7-9
- Low reliability: 0-6
Evidence and gap maps report what evidence is there, not what the evidence says.

Evidence and gap maps:

- **Guide users to available relevant evidence to inform strategy and programme development.** Using a map is an efficient and reliable way for policymakers and practitioners to find evidence of what works. The map structures the evidence to guide the user to the area they are interested in and the studies have been screened to ensure that only relevant studies are included. In a map of effectiveness studies like the homelessness map, only impact evaluations and systematic reviews of effects are included.

- **Tell users where there is no relevant evidence or where there is demand for evidence-based programmes.** If a map shows there is no evidence for a particular intervention/outcome combination then it is not possible to select or design programmes based on available evidence as it simply does not exist. There is also no point in conducting systematic reviews in these areas as they will be what are known as ‘empty reviews’. Rather, new primary studies are needed.

- **Identify areas with many primary studies and no reviews so that reviews are feasible and useful.** Areas with several existing reviews can be candidates for reviews of reviews which summarise the evidence for existing systematic reviews.
Examples of the use of maps

The Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU) uses mapping to identify ‘scientific uncertainties’ – that is areas in which evidence is lacking – and then runs an annual research competition to fill priority gaps. For example, in one year SBU identified gaps in the evidence base with respect to ADHD and then, through a consultation exercise, identified the top ten priority evidence needs for which evidence was lacking⁵.

Evidence and Gap Maps of the sort published by the Campbell Collaboration were first developed in recent years in the field of international development by the International Initiative for Impact Evaluation (3ie). 3ie has used maps to shape grant programmes for research in areas like agricultural innovation, immunisation, and water supply and sanitation.

The International Rescue Committee (IRC), an international NGO focused on humanitarian and post-conflict interventions, has used maps as the basis for developing an evidence-based outcome framework. The outcome framework is used with evidence maps across a range of intervention categories, such as health and education, to guide IRC programme managers to relevant evidence as to which approaches to use to achieve specific outcomes.

And a map of interventions for people with disabilities has been used by DFID to shape a new £7 million research programme and to identify topics for rapid reviews for a planned global summit. The decision to produce a map on disability was itself the result of gaps identified in a ‘map of maps’⁶.

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### Part 1: Global Evidence and Gap Map of Effectiveness Studies

**International Rescue Committee’s Outcomes and Evidence Framework**

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[Link to International Rescue Committee’s Outcomes and Evidence Framework](http://oef.rescue.org/#/outcomes?_k=4a6usi)
How will the Centre for Homelessness Impact use Evidence and Gap Maps?

The Centre will improve the welfare of people affected by homelessness by providing evidence-based resources for policymakers and practitioners. The evidence and gap maps are the first part of that evidence architecture. They have been a building block for the Centre’s Intervention Tool.

The maps are informing the development of an outcomes and impact framework that takes a systems wide perspective towards ending homelessness. This will help guide the Centre’s investments and strategic collaborations. It may also provide a resource to aid the improvement of local and national government, foundations, and organisations in the third and private sectors.

In addition, the maps identify the evidence to be used in the Centre’s online evidence resources and inform the future policy-oriented research programme of the Centre. The Centre is also commissioning new studies to assesses the effectiveness of programmes for those affected by homelessness. The maps, which will be updated annually, will inform the identification of priority areas where evidence is currently lacking.

The maps also show that there are considerable bodies of evidence in some areas, but comparatively few systematic reviews —

and that the reviews are concentrated in health and supported accommodation interventions. The majority of reviews are of, at best, moderate quality. Most the available evidence has not been synthesised sufficiently well to draw out available lessons for policy and practice. The Centre has already commissioned three new systematic reviews, which are based on studies contained in the maps.
Part 1: Global Evidence and Gap Map of Effectiveness Studies
Chapter 2

The Homelessness Evidence and Gap Map

What does the homelessness map show? An overview

There is a substantial body of evidence. There are 260 studies in the map, comprising 22 systematic reviews and 238 primary studies. But this evidence is unevenly spread by intervention category and geography.

The largest focus (114 studies) is on specialist health and social care interventions which seek to increase the access to health and social work services by homeless people.

There are also many studies assessing the impact of various interventions on accommodation-based interventions, either by itself or most commonly with support services (27 and 108 studies respectively; see Figure 1). But given the wide range of interventions, this coverage is uneven. Some interventions, notably Housing First, have a sizeable number of studies (over 80 studies), but others, such as reconnection, none at all.

Figure 1 Distribution of studies by intervention category
And the evidence that there is comes largely from North America. Over 90 per cent of studies (237) refer to interventions in North America, compared to just 27 for the whole of Europe. There are a substantial number of randomized controlled trials, which demonstrates the feasibility of this evaluation method in the sector. Of the primary studies, nearly two-thirds (155 studies) are RCTs (see Figure 2).

Figure 2  Number of studies by study design

The number of studies has risen over time. The map contains an average of 5 studies a year before 1990, eight a year from 2000-05, ten from 2006-10 and 17 a year in the years since 2011.
How did we create the Centre’s evidence and gap map?

The Evidence and Gap Map is based on a review of the global evidence from a systematic search of electronic databases, selected websites and journals. This search identified over 13,000 potentially relevant studies, which reduced to just over 8,000 once duplicates were removed (see Figure 3).

These 8,000 studies were carefully screened for relevance against our inclusion criteria. That is the study had to be a study of the effectiveness of interventions to improve the wellbeing of homeless individuals or families, or those at risk of homelessness. Exclusion criteria were also applied: we have not included studies related to refugees or those made homeless by natural disasters.

The screening is a two stage process. All 8,121 records were screened by title and abstract, leaving 714 studies to be screened for full text. Of these 392 were excluded, 100 allocated to the process evaluation map (which is in the accompanying report), and 226 included for this effectiveness map. An additional 34 studies were identified from the references in the included systematic reviews and website searches for grey literature.

To minimise the risk of missing studies or other mistakes, the screening and coding is done by two researchers independently. Any discrepancies in their answers are discussed and referred to a third party if they cannot agree.

Each included study was double-coded, meaning that two people record the details of the study, including the intervention category it refers to, the indicators it measures, and data on the other filters described above.
Figure 3 PRISMA Flowchart

Identification

Records identified through database searching
number: 13619

Records after duplicates removed
number: 8121

Duplicates removed
number: 5498

Screening

Records screened for title and abstract
number: 8121

Records excluded
number: 7413

Eligibility

Full-text articles screened for eligibility
number: 714

Full-text articles excluded, with reasons
number: 392

Full-text articles screened for process evaluation
number: 100

Included

Studies included for coding for effectiveness map
number: 231

Qualitative studies excluded
number: 6

Assessed

Studies assessed for eligibility
number: 226

Additional studies identified
number: 34
EGM findings: further detail

Table 1 shows the aggregate map, showing the intervention-outcome matrix. Areas with a high level of evidence (50 or more studies) are found under health and social care and housing-based interventions, with the main outcomes being housing stability, health, capabilities and well-being and, in the case of health and social care, access to services.
Populated cells

These sub-categories for interventions and sub-categories provide the most heavily populated cells on the map:

- The impact of supported accommodation on housing stability (49 studies), and health (45 studies). Within the later the important sub-categories are mental health (30 studies) and abstinence from substance abuse (17 studies). There is a particular large evidence base for Housing First: nearly 80 primary studies, also all from North America. Housing First is also covered in a systematic review of interventions for those affected by homelessness, being identified on the list of interventions with positive effects on housing stability.

- The impact of specialist health and social services on health outcomes (92 studies), especially, mental health (49 studies) and adherence to programmes for substance abuse (42 studies).

- Other heavily populated cells pointing to considerable bodies of evidence which may be suitable for reviews relate to shelters and hostels and private rented accommodation, and a range of health interventions such as specialist homeless health services. There are many studies concerned with use of peers in project implementation, but there is also a review published in 2017.
Table 1 Aggregate Evidence and Gap Map

<table>
<thead>
<tr>
<th>Indicator areas</th>
<th>Capabilities &amp; wellbeing</th>
<th>Cost</th>
<th>Crime and justice</th>
<th>Employment and income</th>
<th>Health</th>
<th>Housing stability</th>
<th>Public attitudes &amp; engagement</th>
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</thead>
<tbody>
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<td>3</td>
<td>2</td>
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<td>19</td>
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<td>9</td>
<td>5</td>
<td>6</td>
<td>45</td>
<td>49</td>
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<td>4</td>
<td>3</td>
<td>5</td>
<td>23</td>
<td>19</td>
<td>1</td>
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<tr>
<td>Annual income</td>
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<td>2</td>
<td>9</td>
<td>5</td>
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<td>6</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>Crisis services and emergency accommodations</td>
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<td>2</td>
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<td>12</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Education, skills and employment</td>
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<td>1</td>
<td>1</td>
<td>6</td>
<td>9</td>
<td>5</td>
<td>4</td>
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<td>Health and social care - mainstrea</td>
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<td>4</td>
<td>0</td>
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<td>7</td>
<td>2</td>
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<td>5</td>
<td>92</td>
<td>45</td>
<td>4</td>
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<td>Public policy - housing/homelessness</td>
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<td>0</td>
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<tr>
<td>Public policy - other</td>
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<td>0</td>
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<td>2</td>
<td>0</td>
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<td>Social relationships and community</td>
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<td>Technology</td>
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<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Where is the evidence from?

The evidence is overwhelmingly from North America. The highest number are from the United States (over 200 studies, including reviews), but there are a substantial number from Canada (nearly 40 studies). There are 287 studies from Europe, of which the largest number are from the United Kingdom (12 studies; five systematic reviews and seven primary studies), followed by the Netherlands with nine studies. There are three from Ireland, two from France, and one each from Germany, Norway, Finland, and Romania.

For the United Kingdom, all the primary studies are from England. Of the ten studies, three are reviews covering the UK. Of the remaining seven, one is from an intervention on Oxford, one Manchester and London, and the remaining five refer to interventions in London.

Evidence-based policy and practice is not a blueprint approach. European countries, including the UK, should learn from the North American experience but not simply copy it. The map demonstrates the need for more primary studies of promising interventions in different contexts across Europe.

Where are the gaps?

There are many blank cells in the map, which lay mainly in the less well populated intervention and indicator categories. The largest gaps are for legislation and communication. There is also a lack of evidence from prevention and education and skills. There are few studies related to justice indicators, public attitude and perception and cost.
But another striking gap is the relative lack of systematic reviews. In health it is sometimes the case that there are more reviews on a subject than there are primary studies. But the homelessness map shows many areas in which there is a wealth of primary studies (though mainly of North American evidence) which have not been subject to detailed review.

More detailed analysis of gaps will require intervention and outcome-specific analysis. For example, there are several studies of Critical Time Interventions but nearly all these studies refer to transitions from mental health facilities or analysis mental health outcomes. There is a much smaller evidence base for those leaving prison or the military. 

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7 The gap is for impact evaluations and effectiveness reviews containing cost data. There are studies valuing the costs and benefits of interventions for those experiencing homelessness, which are a potential topic for a systematic review.
Chapter 3

Next Steps

The evidence map provides a valuable snapshot of the available evidence on the effectiveness of interventions for the homeless, but it does not tell us what that evidence says. It also assesses the quality of the evidence base. The maps are a first building block for the Centre to construct an evidence architecture for the field.

The Centre will has used the evidence map to guide the creation of evidence overviews for its new homelessness Intervention Tool. Developing the tool will continue to be a gradual process. The Centre started by providing short evidence overviews for a number of homelessness interventions, based on the studies represented in the map.

To better populate the map, the Centre is working with the Campbell Collaboration to produce a series of systematic reviews for key interventions in the sector such as accommodation-based interventions and access to health services. The tool will be updated regularly to incorporate new insights from studies and systematic reviews as they’re completed.

The map also points to evidence gaps. The Centre for Homelessness Impact has carried out a consultation exercise to identify priority evidence needs for which evidence is lacking. The Centre is now working to fill those gaps, either directly or indirectly. It will also work with key stakeholders to support them in undertaking rigorous evaluation of their programmes.

The Centre believes an end to homelessness is an achievable goal, one it will help attain through its contribution to building the evidence architecture for homelessness.
Appendix

Data tables

Table A.1 Number of studies by study design

<table>
<thead>
<tr>
<th>Study design</th>
<th>Count: 260</th>
</tr>
</thead>
<tbody>
<tr>
<td>Randomized controlled trial</td>
<td>155</td>
</tr>
<tr>
<td>Non experimental</td>
<td>83</td>
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<tr>
<td>Systematic review</td>
<td>22</td>
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</table>
Table A.2  Geographical distribution of studies

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
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</thead>
<tbody>
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<td></td>
</tr>
<tr>
<td>United Kingdom</td>
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<tr>
<td>Netherlands</td>
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<td>Denmark</td>
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</tr>
<tr>
<td>France</td>
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</tr>
<tr>
<td>Finland</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>1</td>
</tr>
<tr>
<td>Ireland</td>
<td>1</td>
</tr>
<tr>
<td>Norway</td>
<td>1</td>
</tr>
<tr>
<td><strong>East Asia and Pacific</strong></td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>3</td>
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<tr>
<td>Australia</td>
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<tr>
<td>Interventions for promoting reintegration and reducing harmful behaviour and lifestyles in street-connected children and young people (Project record)</td>
<td>Coren E, Hossain R, and Jordi PP. (2015). Health Technology Assessment Database.</td>
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</table>
### Table A.4 Interventions

<table>
<thead>
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<th>Intervention</th>
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<td>Accommodation with support services</td>
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<tr>
<td>Accommodation based support services</td>
<td>34</td>
</tr>
<tr>
<td>Armed forces</td>
<td>12</td>
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<tr>
<td>Arts sports and culture</td>
<td>1</td>
</tr>
<tr>
<td>Communications and campaigns</td>
<td>1</td>
</tr>
<tr>
<td>Crime and justice</td>
<td>8</td>
</tr>
<tr>
<td>Crisis services and emergency accommodations</td>
<td>34</td>
</tr>
<tr>
<td>Donations and Cash Transfers</td>
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</tr>
<tr>
<td>Education, skills and employment</td>
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</tr>
<tr>
<td>Health and social care - mainstream</td>
<td>20</td>
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<tr>
<td>Health and social care - specialist</td>
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<tr>
<td>Public policy - housing/homelessness</td>
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<tr>
<td>Public policy - other</td>
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</tr>
<tr>
<td>Social relationships and community</td>
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<tr>
<td>Technology</td>
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</table>
Part 1: Global Evidence and Gap Map of Effectiveness Studies
Table A.5 Outcomes

<table>
<thead>
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<th>Outcome</th>
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<tbody>
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<td>Capabilities and Wellbeing</td>
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<tr>
<td>Cost</td>
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<tr>
<td>Crime and justice</td>
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<tr>
<td>Employment and income</td>
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<tr>
<td>Health</td>
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<tr>
<td>Housing stability</td>
<td>111</td>
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<tr>
<td>Public attitudes and engagement</td>
<td>15</td>
</tr>
<tr>
<td><strong>Capabilities and Wellbeing</strong></td>
<td></td>
</tr>
<tr>
<td>Community engagement and social connectedness</td>
<td>35</td>
</tr>
<tr>
<td>Improved skill and self care</td>
<td>17</td>
</tr>
<tr>
<td>Overall well being and quality of life</td>
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</tr>
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<td>Loneliness</td>
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</tr>
<tr>
<td><strong>Cost</strong></td>
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</tr>
<tr>
<td>Cost effectiveness</td>
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<tr>
<td>Cost per participant</td>
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<tr>
<td>Saving</td>
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</table>
### Part 1: Global Evidence and Gap Map of Effectiveness Studies

<table>
<thead>
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<th>Category</th>
<th>Metric</th>
<th>Code</th>
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<td>Employment and income</td>
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</tr>
<tr>
<td></td>
<td>Earned income</td>
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</tr>
<tr>
<td></td>
<td>Employment status</td>
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<tr>
<td>Health</td>
<td>Abstinence from substance abuse</td>
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</tr>
<tr>
<td></td>
<td>Access to mainstream health care</td>
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<td>Harm reduction</td>
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<td>Accommodation status</td>
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<td>Recidivism</td>
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<td>Victims of crime</td>
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<tr>
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<td>Support for intervention</td>
<td>15</td>
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</table>
Table A.6  Full list of studies included in the Evidence Gap Map

Included systematic reviews


Costa V. (2016). Interventions to improve access to primary care for people who are homeless: a systematic review (Structured abstract). Health Technology Assessment Database, 16(9).


Part 1: Global Evidence and Gap Map of Effectiveness Studies


Included primary studies


Part 1: Global Evidence and Gap Map of Effectiveness Studies


Part 1: Global Evidence and Gap Map of Effectiveness Studies


Parker RD, and Albrecht HA. (2012). Barriers to care and service needs among chronically homeless persons in a housing first program. Prof Case Manag., 17(6), pp.278-84.


Part 1: Global Evidence and Gap Map of Effectiveness Studies