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Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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Abstract

Objective

The objective of this study was to identify and understand the health system contexts and mechanisms that allow for homeless populations to access appropriate healthcare when needed.

Design

A realist review.

Data sources

Ovid MEDLINE, embase.com, CINAHL, ASSIA and grey literature until April 2019.

Eligibility criteria for selecting studies

The purpose of the review was to identify health system patterns which enable access to healthcare for people who experience homelessness. Peer reviewed articles were first identified through a systematic search, grey literature searching, citation tracking and expert recommendations. Studies meeting the inclusion criteria were assessed for rigour and relevance and coded to identify data relating to contexts, mechanisms and/or outcomes.

Analysis

Inductive coding was used to generate Context-Mechanism-Outcome configurations which were refined and then used to build several iterations of the overarching programme theory.

Results

Searching identified 330 review articles, of which 24 were included. Additional searching of grey literature yielded 50 records of which 12 were included. An additional 11 grey literature and primary sources were identified through citation tracking and expert recommendation for a total of 47 included sources. The analysis found that healthcare access for populations experiencing homelessness is improved when services are coordinated and delivered in a way that is organised around the person with a high degree of flexibility and a culture that rejects stigma generating trusting relationships between patients and staff/providers. Health systems should provide long-term, dependable funding for services to ensure sustainability and staff retention.

Conclusions

With homelessness on the rise internationally, this study will inform health systems policy-making and implementation. It contributes to our understanding how healthcare systems can be more accessible for populations experiencing homelessness by providing long-term stable funding, promoting inclusive cultures and limiting stigma. Health systems should be flexible, timely and connected.

Article summary

Strengths and limitations

- This is the first realist review of access to healthcare for homeless populations
- The review uncovered modifiable contexts and provides important lessons for policy makers working in this area
- The search strategy was focused on review articles to identify high-level themes meaning we may have missed some relevant literature. However, iterative searching was done and an expert panel was engaged in the analysis.

Background

Homelessness is an extreme expression of social exclusion, experienced by people lacking a stable and secure place to live. According to the European Typology of Homelessness and Housing Exclusion (ETHOS) homelessness occurs in four ways: rooflessness (sleeping rough, without any shelter); houselessness (having somewhere to sleep but temporary in shelter or institution); living in insecure housing (eg insecure tenancies, threat of eviction, violence); living in inadequate housing (overcrowding, unfit housing, caravans on illegal campsites).(1) There are various subgroups within the homeless population, including families and single adults. Some single adults have children but often their children do not live with them.(2)

Populations experiencing homelessness along the full spectrum set out above, experience both increased difficulty accessing healthcare and poorer outcomes than housed populations, with chronically homeless individuals having worse clinical outcomes than those experiencing intermittent homelessness or as a one-off crisis.(3–5) Populations experiencing homelessness access primary care less than housed populations and utilise costly unscheduled acute healthcare at a higher rate than their housed peers.(5–7)

Accessing healthcare is complex because it is dependent on many variables on both the supply side (availability, hours, location, staffing, resources, price, etc) and on the demand side (knowledge of health need, availability of the needed time and resources, distance to service location, psychological factors, disposable income, etc). As a result, a variety of intended and unintended outcomes (accessing the right care, accessing inadequate care, not accessing care, accessing part of a full course of treatment, etc) arise.

Supply side factors of a health system are described in both the World Health Organisation building blocks framework (8) including service delivery, health workforce, and leadership/governance, and in Aday and Andersen's Framework for the Study of Access to Medical Care (9) with health system factors organised under the categories of 'health policy' and 'characteristics of health delivery system'.

This article focuses on homeless single adults with complex needs who may experience any of the types of homelessness outlined according to ETHOS above. We use the term 'populations experiencing homelessness' to refer to this group in this article. The lack of housing in and of itself is not the only driver of poor access to healthcare and poor health outcomes in this population. Homelessness is a marker for and is associated with 'tri-morbidity' - the combination of physical ill-health, mental ill-health, and substance misuse.(10) In addition to lacking stable housing, populations experiencing homelessness often face a host of health problems and addiction behaviours associated with complex life circumstances and events including early childhood trauma, having been in care, relationship breakdowns, poverty, lack of employment and more.(2,11) While these are common experiences, it is important to stress that they happen to varying degrees and sometimes not at all.(11)

The majority of research exploring access to healthcare for homeless populations has focused on individual level factors and particularly on why, whether and how individuals experiencing homelessness do or do not access healthcare (3,12–20). A focus on individual level factors is illuminating but without understanding and balancing this with health system factors there is a risk that responsibility for accessing services is inappropriately placed with the individual (21,22). This review synthesises health system factors that determine healthcare accessibility in order to explore how whole systems can make appropriate healthcare services accessible to whole populations and in particular to those who need them most.

Realist review in the school of Pawson and Tilley (23,24) is a methods-neutral approach designed for examining complex interventions or topics by seeking to understand the contexts in which particular underlying mechanisms cause a given outcome to occur. Contexts are the only modifiable part of the construct and different contexts can cause different mechanisms, intended and unintended, to ‘fire’. Analysis takes place by explaining the causal relationship between contexts, mechanisms and outcomes in the construction of Context-Mechanism-Outcome configurations (CMOCs) (see online glossary of terms).

A review of health system factors which improve access to health care for populations experiencing homelessness is needed because an individual level analysis does not fully explain systemic causes of inadequate access to essential health services. This review sought to answer the following question:

- How, why, for whom, in what circumstances and to what extent can healthcare systems improve access to healthcare for populations experiencing long-term homelessness?

Methods

The review followed a study protocol based on Pawson’s five iterative stages: 1. locating existing theories, 2. searching for evidence, 3. selecting articles, 4. extracting and organising data and 5. synthesising the evidence and drawing conclusions. (23) The phases of the review are illustrated below in fig 1.

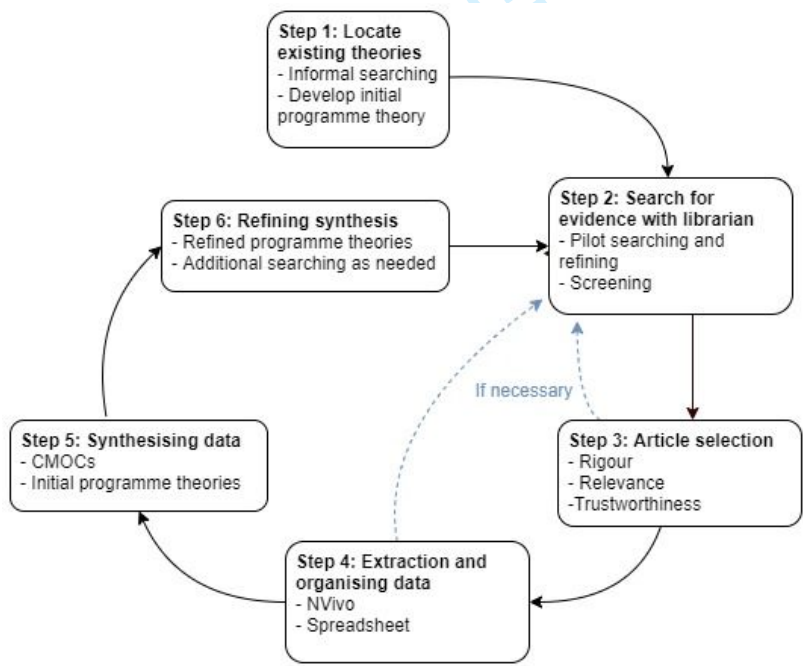


Figure 1 The stages of a realist review(23)

Initial programme theory

A rough initial programme theory was developed based on informal reading and discussions with content experts. It listed potentially important contexts and mechanism affecting healthcare access for populations experiencing homelessness.

Searching

A search strategy was developed with the input of a subject librarian and a content expert to identify relevant published reviews. Pilot searching was undertaken and final search terms were agreed. A formal search of four electronic databases (Ovid MEDLINE, embase.com, CINAHL, ASSIA) was undertaken in April 2019. Results from each search were exported to Endnote X9 and deduplicated automatically and manually. Full search terms can be found in supplementary materials. Additional articles were subsequently included following citation tracking and after searching grey literature via the internet and websites of organisations working on homeless health. These sources were selected to shed light on CMOCs that were not fully developed from the existing sources and particularly to explore high level health system CMOCs including funding, resourcing, training and goal setting not explored in the included peer-reviewed sources (these findings resulted in CMOCs 1-3 below).

Selection and appraisal of documents

Studies were included based on their relevance to the review question, ie if they provided information about access to healthcare for homeless populations and would contribute to the development and refinement of the programme theory. RS screened all titles and abstracts and SB independently screened a random 10% sample. During the screening phase an initial evaluation of rigour and relevance (see glossary in supplementary online file for definitions) was done and as was the case at later stages when additional literature was collected. See full search in fig 2.

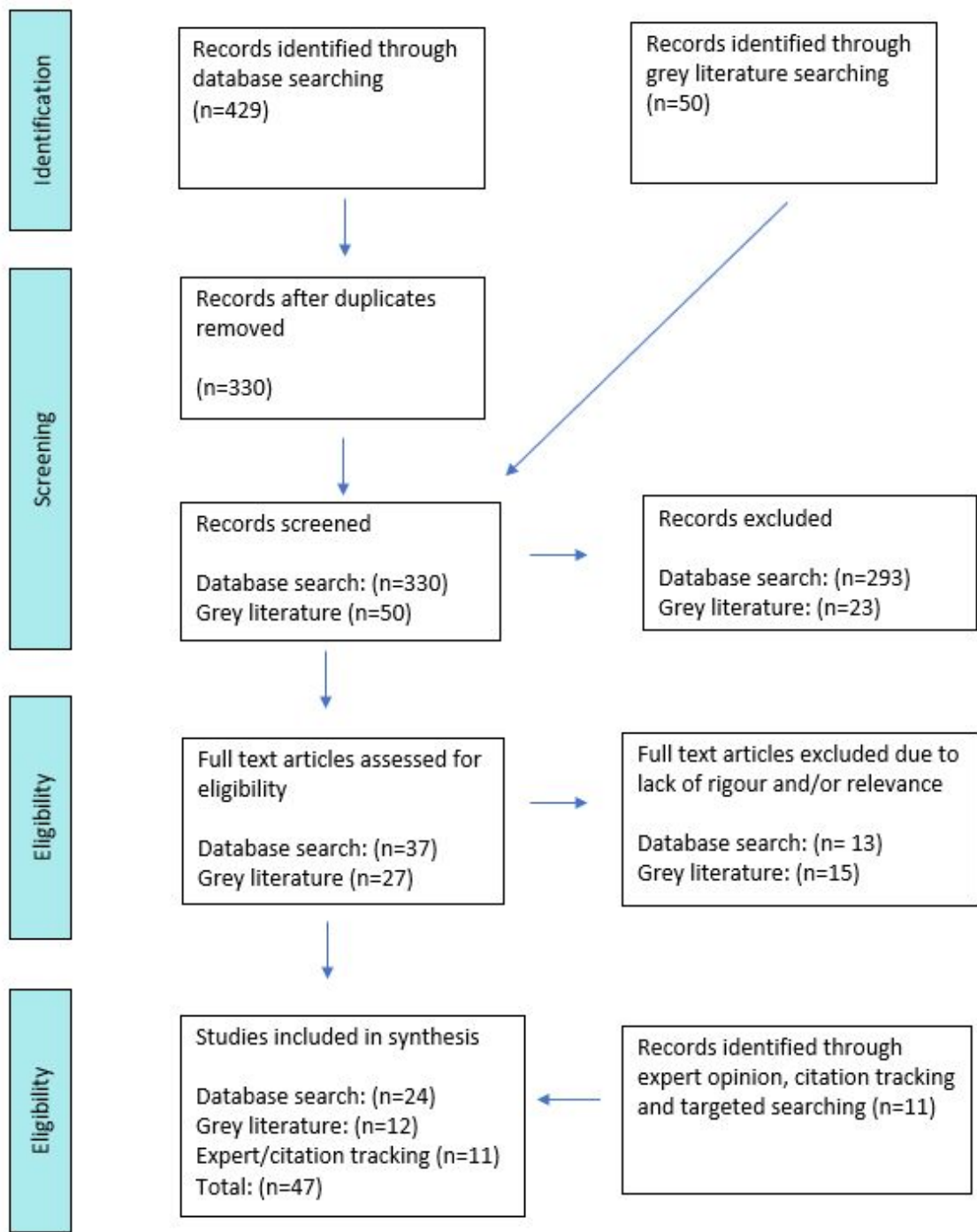


Figure 2 Prisma diagram

Data extraction and analysis

After the initial screening phase was completed, data extraction was done into a proforma extraction table which can be found in the supplementary data file.

Coding took place in NVivo 12 starting with the most useful articles, regarding rigour, relevance and trustworthiness, as they were expected to best inform the development of CMOCs and programme theory. Coding was done inductively under thematic headings of factors that promote and impede healthcare access as described in the literature. Codes were then organised by headline categories depending on whether a finding was related to the individual seeking care, the healthcare provider and/or programme providing care or the health service/ health system in which that healthcare is organised.

Initial codes were applied deductively to subsequent articles with new codes created as needed. Labels of context, mechanism and outcome were assigned when possible and at times not assigned if a code did not have a clear placement. Contexts, mechanisms and outcomes are not static labels but can change in relation to each other eg something can be a context in one instance but a mechanism in another and an outcome can become a context for another CMOC depending on its explanatory role in the given configuration (25).

Using a realist logic of analysis, CMOCs were then created initially from data in the 24 review articles included after the first round of searching, drawing from several sources to construct each CMOC. The purpose of the analysis was to identify general patterns, rather than be exhaustive. A list of CMOCs were written in a Word document with its supporting data excerpts listed below. Iterative cycles of analysis took place to refine CMOCs. Through the analysis process, some CMOCs were eliminated and some were combined if they were similar to others. CMOCs were further refined after consultation with various stakeholders on a one-to-one basis and via a formal expert panel meeting with representation by members of an inclusion health team in a local hospital (consultant doctor and social worker), the director of policy for a national homeless charity, an inclusion health GP, a representative for the Health Service Executive, and two academics who work in the areas of homeless healthcare and health policy.

Results

Search results and study characteristics

In total, 330 titles and abstracts were screened and 37 published review articles were deemed to meet the inclusion criteria and these then underwent full-text review. Next, during the data extraction phase with a close reading of each article, it was determined that 13 of the 37 articles that were initially included in the analysis did not fully meet relevance and/or rigour standards and they were thus excluded leaving a total of 24 articles for inclusion. All studies included in the reviews were from high income countries, the majority having focused on the USA, Australia and the UK.

Focus of the review

Initial analysis resulted in two broad conceptual sets of findings: one related to how services are organised and delivered and another related to how staff are trained and developed to best provide such services. Based on team discussions and with the recognition that we would not be able to fully explore all findings, the team decided to focus on the topics most relevant to the research question. The findings around service delivery and organisation were chosen as the focus for the next stage of the review.

Programme theories and CMOCs

Within the focused section of the review, a total of 59 CMOCs were generated. These theorise about the generative causation between each of the contexts and the specific mechanisms that fire within them to produce intermediate outcomes and the ultimate outcome of facilitating appropriate healthcare access. There was overlap between these but it was important to capture and articulate

the relationship between each distinct context, mechanism and outcome and to interrogate whether they shared a causative relationship before combining them together.

Building on the 59 individual CMOCs, three consolidated CMOCs explain how health systems and individual health services make themselves accessible in relation to how healthcare is organised, the culture in a healthcare system and in healthcare organisations, and how healthcare is delivered.

To further investigate questions related to health services funding which was mostly absent from the peer-reviewed literature, a further fourteen individual CMOCs were constructed from data from grey literature sources. These were again consolidated resulting in the development of another three consolidated CMOCS explaining aspects of resourcing, funding stability, and system fragmentation and goals.

The six CMOCS are described in detail in the narrative below.

Resourcing

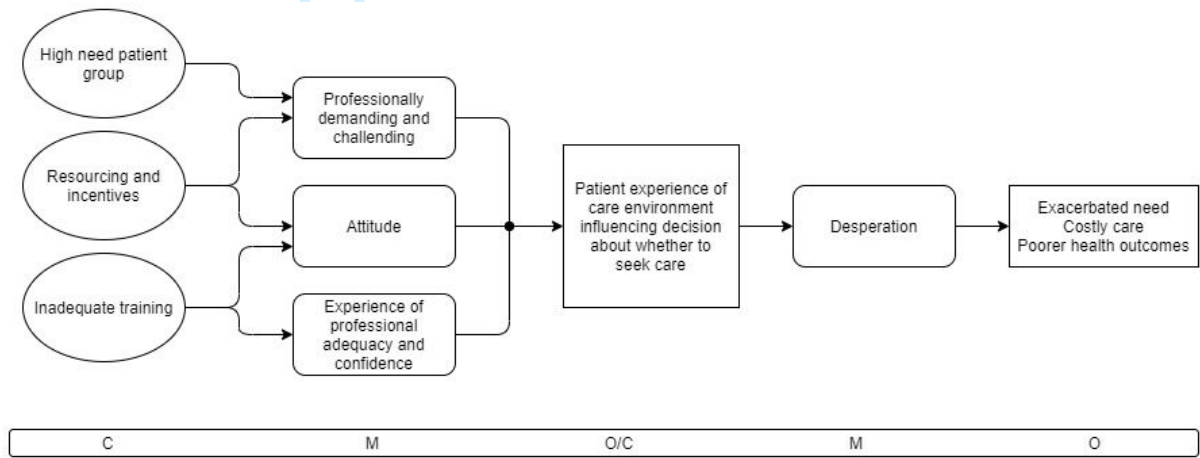


Figure 3 CMOC 1: Resourcing

This first consolidated CMOC (fig 3) explores contexts where mainstream health practitioners and staff (in hospital and primary care settings) are expected to treat long-term homeless populations with high needs even if they receive no specialist training and health system budgets assign inadequate funding.(26–29) In these contexts, practitioners and staff feel ill equipped to communicate effectively with and meet the specific needs of the patient group. They experience feelings of inadequacy and lack of professional confidence and display an unwelcoming attitude toward patients.(13,26–28,30–34) As a result, patients do not feel comfortable and choose not to seek care at an appropriate time (eg seeking care early from a GP before a condition gets worse and acute care is needed).(13,26,31,35–37)

The outcome of not seeking care when the care environment is not welcoming becomes a new context which leaves patients instead to seek care only when the need is emergent and out of desperation, and at a later stage than ideal and at a setting that is available (such as the ED).(13,31,33,35,38) This results in the need for the health system to provide more care at a later stage and more intensive care and it generates poorer health outcomes and higher overall costs to the health system.(31,35,39)

Funding stability and source



Figure 4 CMOC 2: Funding stability

CMOC2 (fig 4) shows that in a context where funding comes from multiple sources and where funding cycles are short and unreliable, eg grant funding for specific purposes with a short duration,(32,35,37,40) staff members employed on short term contracts experience poor working conditions with a lack of sustainability and stability of the services they work for.(29,37,41–43) The outcome is difficulties hiring and retaining skilled and experienced staff members.(29,37,41–43)

Health system fragmentation and goals

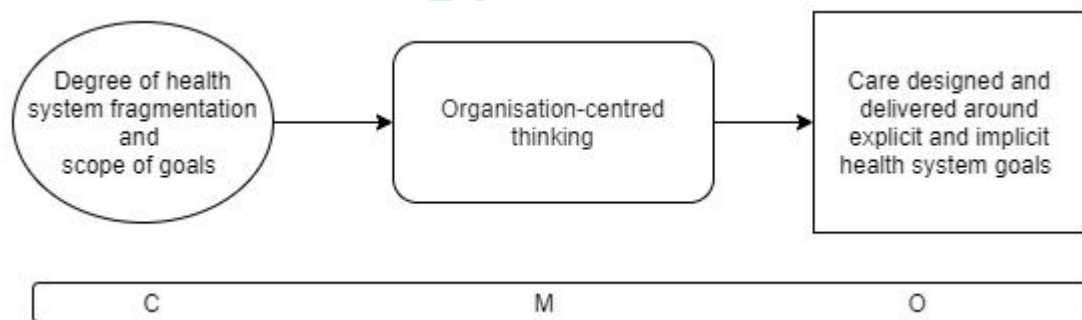


Figure 5 CMOC 3: Fragmentation and goals

CMOC3 (fig 5) shows that in a context where various parts of a health system operate in silos with narrowly defined goals,(31,32,35,37,44) staff prioritise meeting those goals even though they are not suitable for responding to the complex needs of homeless patients whose care should be organised across a number of domains.(31,32,44) Staff and providers are not incentivised or empowered to take responsibility for creating holistic, coordinated flexible ways of organising care around a patient's needs and wishes. As a result, healthcare is organised around the needs of providers and the system not the person.(14,31,32,35,44,45)

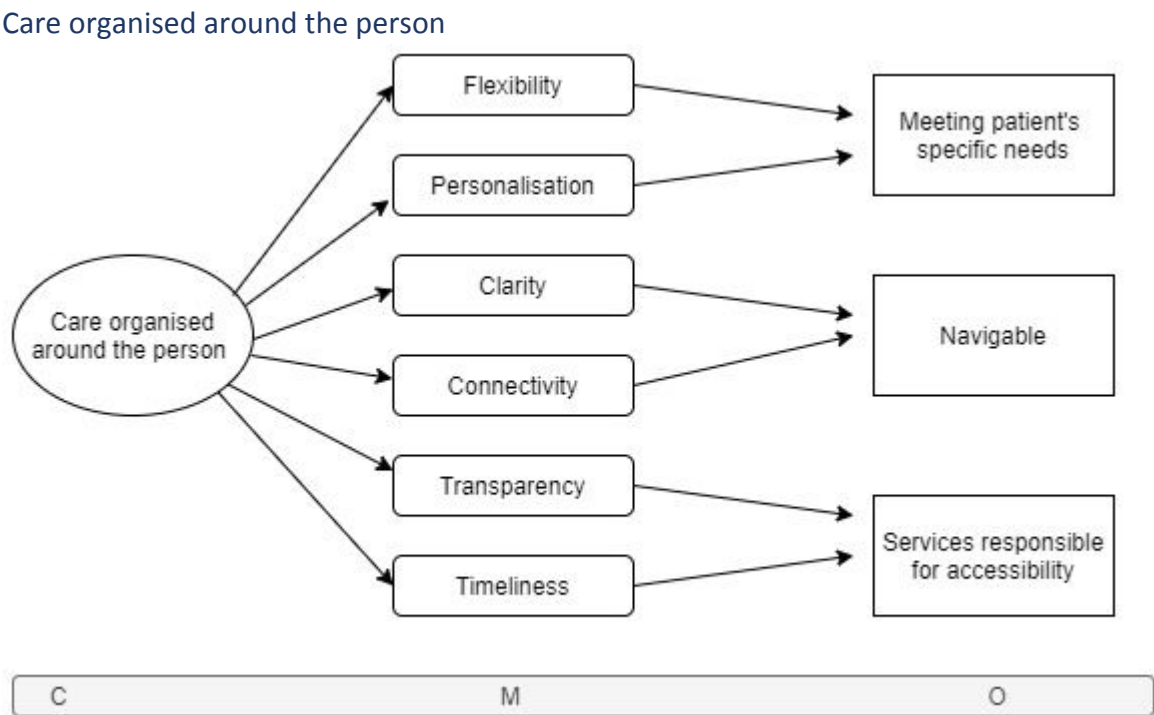


Figure 6 CMOC 4: Care organised around the person

CMOC 4 (fig 6) shows that in a context of where care is organised around the person, the mechanism of flexibility and personalisation is triggered, allowing patients to feel that their particular needs are understood and met.(21,29,33,44,46–49)

Health system navigability is enhanced through having coordinated and co-located care,(7,29,33,34,47,50–52) through having clear and intuitive patient pathways managed by staff and providers who bring patients along to the next step, (14,33,47,53,54) and through accompanying patients either by link workers or peer advocates.(21,33,54–58) Having this kind of support helps patients by providing extra motivation and confidence in seeking health services when needed and navigating institutional locations such as hospitals and clinics, and negotiating patient pathways which may be complex.(33,35,47,54) Peer advocates have a unique understanding of the experience the patient is having and have the ability to meet patients where they are and provide emotional support.(33,38,52,55–57)

When care is organised around the person it is inherently respectful of other demands on their time and their particular goals (or lack thereof) for their own health. For example, as many services are carried out in one clinical encounter as possible and through shared and transparent decision making. As a result, responsibility is placed on the service to make itself fit with the patient's life circumstances and to share knowledge and decision making to promote initial accessibility and beyond.(21,33,51,53–56,59)

Inclusive culture and leadership

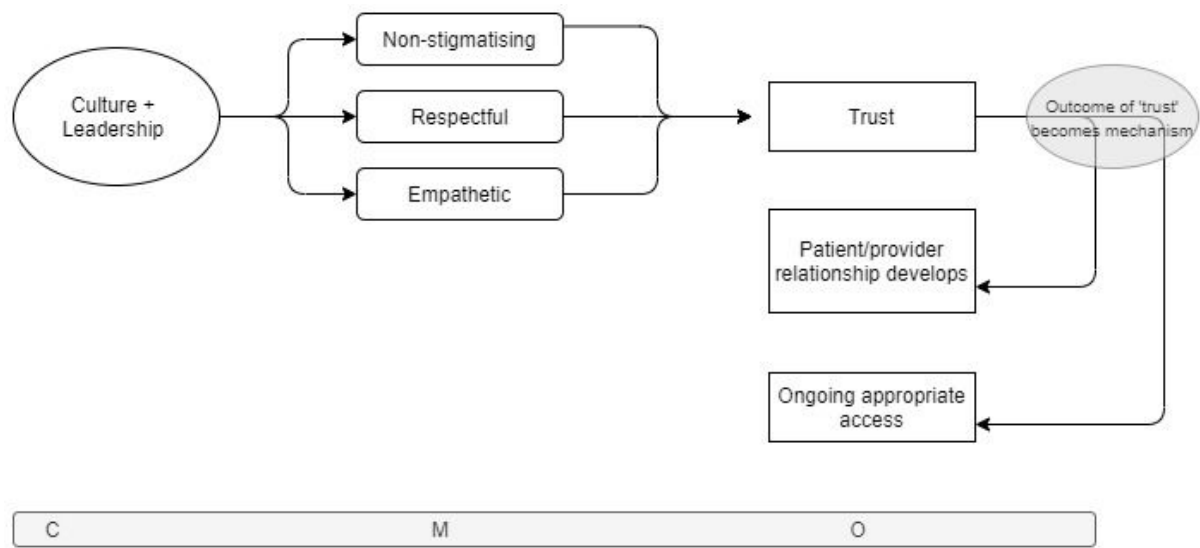


Figure 7 CMOC 5: Culture and leadership

CMOC 5 (fig 7) examines the importance of culture and leadership in creating health system contexts. Through culture the value assigned to different population groups is implicitly defined and, crucially, creating the right cultural context depends on leadership and management through explicit commitments to values of inclusivity and whole organisation policies and processes.(27,31,35,37,45,60–62)

In the articles reviewed, stigma is a crucial mechanism which keeps individuals experiencing homelessness from accessing healthcare (13,14,21,29,33,52,55,63). On the other hand, when individuals experience an environment that is non-stigmatising, respectful, empathetic, accepting, sensitive and understanding of their life experience and particular needs, trust develops and leads to a relationship developing over time whereby deepening trust facilitates ongoing engagement which leads ultimately to successful access to health services at the right time and right place.(33,34,46–48,51,55–57)

Flexible healthcare delivery

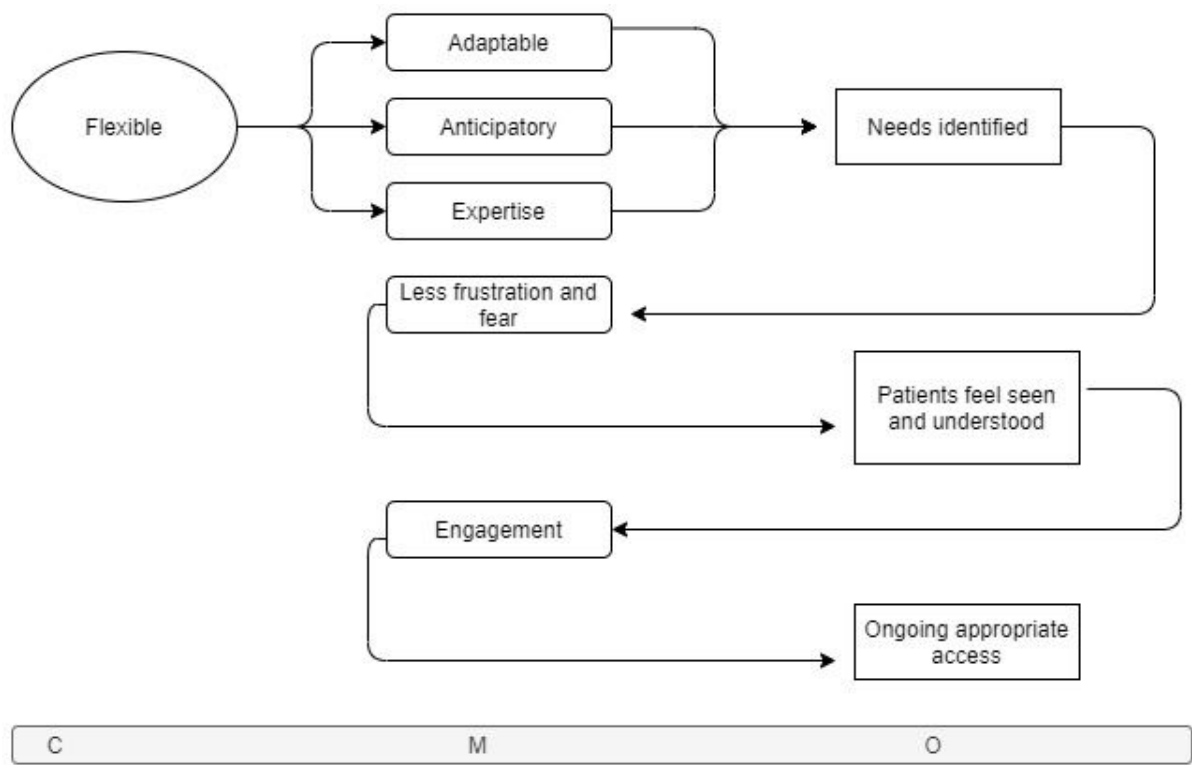


Figure 8 CMOC6: Flexible healthcare delivery

CMOC 6 (fig 8) explores the context of flexibility in healthcare services delivery in terms of appointment length, availability of walk-in appointments and self-referral, opportunistic add-on services such as vaccinations and screenings, allowing dogs, trauma-informed practice and understanding of behaviours that trauma can result in, and more.(21,26,37,40,46,47,50,51,55,64–67) In this context, providers and staff with expertise and experience with the population group are able to anticipate the common interventions that may be needed, to adapt to the particular needs of the patient in front of them, and to provide the treatment that is most needed in the current situation. Communication is tailored to the patient with awareness of potential literacy issues common in the population.(33,34,38,48,53,54,56,59,68) As a result, patients’ needs are identified and if met in the manner described in CMOC4, this experience forms a new context. In this new context (‘needs identified’), experiences of lowered frustration and fear is engendered in patients because they do not have to fit into a mould of a health service which is difficult to navigate and not likely designed with them in mind.(34,38,46,50,51,55) Resulting from that, patients feel seen and understood which becomes a new context (‘patients feel seen and understood’) in which ongoing engagement from both sides is possible and pathways can be created with high levels of flexibility and assistance.(38,46–48,55) Patients are able to follow these peer, key-worker and/or health staff assisted pathways and ultimately this leads to ongoing healthcare access over a course of treatment or on an ongoing basis as needed. A cyclical nature of an ongoing and trusting relationship is established and reinforced over multiple interactions.(21,33,38,55–57,67,69)

The overarching programme theory synthesising the full set of findings from this review (fig 9), shows that a set interlinking factors must all be in place for healthcare access to be successful for populations experiencing homelessness.

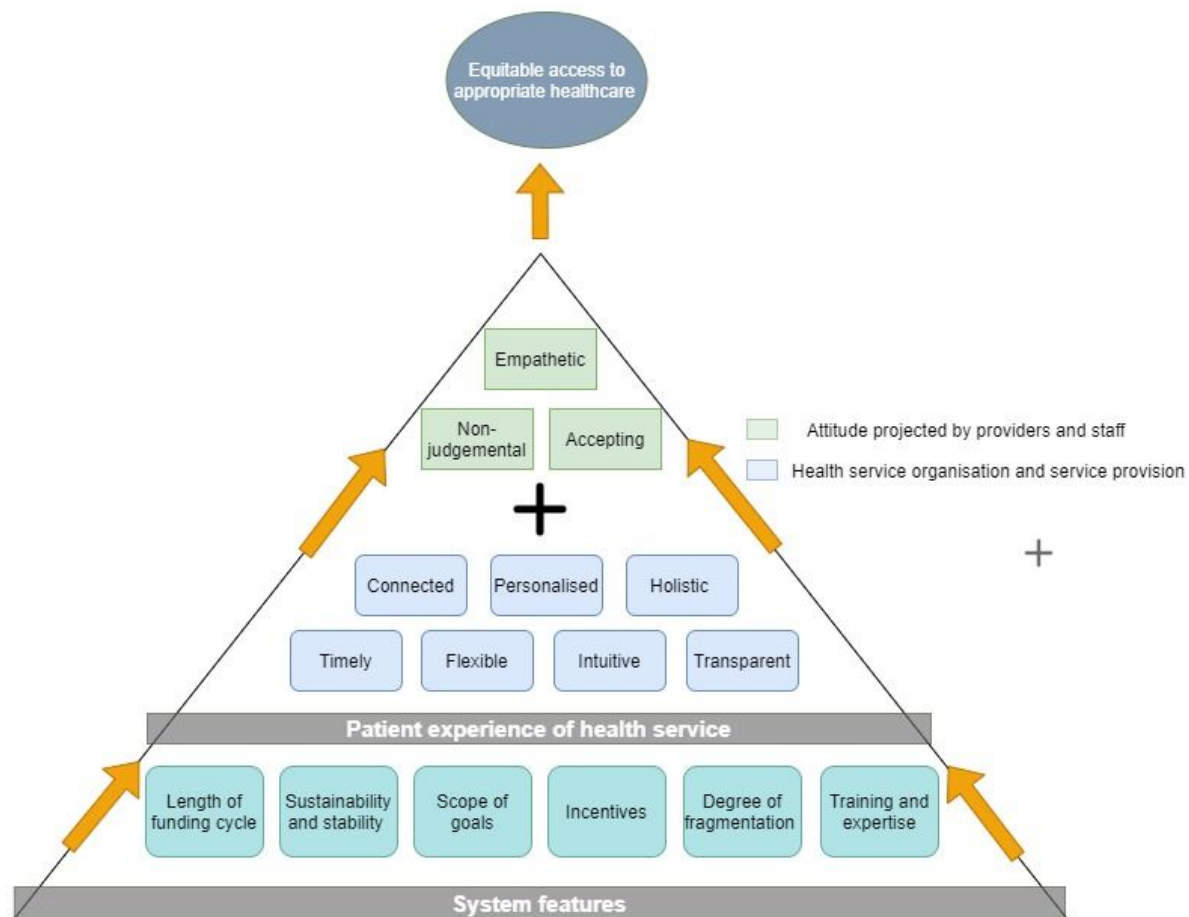


Figure 9 Overarching programme theory

Discussion

Statement of principal findings

Populations experiencing homelessness face a number of barriers to accessing healthcare at the right time and at the right place. Important health system contexts which impact access are resourcing, training, funding cycles, health system fragmentation, health system goals, how care is organised, culture, leadership and flexibility of care delivery. Key mechanisms which arise in these contexts are provider attitudes, provider confidence, staff and provider experience of stability and sustainability, organisation-centred thinking, flexibility, transparency, timeliness, demonstration of respect and empathy, trust, adaptability, and anticipation.

Strengths and limitations

In this review we have used the RAMESES quality standards (70) to rigorously and systematically review the literature included here.

This analysis has taken a high-level view of systematic factors across a breadth of data not focused on specific interventions or disease areas. Our findings have uncovered modifiable health system and service contexts that are applicable and transferrable internationally. The analysis has been informed by the involvement of content experts and stakeholders who have confirmed and challenged findings resulting in further refinement.

Like any review this one relies on the available literature. A number of rigorous and reliable grey literature sources were included in this review and added substantially to the set of findings about high-level health system contexts and mechanisms (eg resourcing, training, funding cycles,

fragmentation and goal setting) (CMOCs 1-3). The data to support these CMOCs came almost entirely from grey literature, primarily from the UK.

None of the included peer review studies specifically analysed health system features. Some analysed service/programme level features that promote access (34,57) but the majority of reviews synthesised and described the accessibility of particular individual level treatments such as for TB, diabetes, palliative care and cardiovascular disease.(33,46,54,59,63,71,72)

There was wide variety in the quality of the reviews themselves with some being transparent and following the guidelines of their particular review methodology closely (eg search string and list of databases provided, appropriate quality appraisal tools used, systematic approach, using appropriate reporting standards, etc) while others did so to varying degrees and a few not at all. A majority of reviews were based on qualitative, descriptive, and small-scale quantitative studies using a variety of methods eg RCT, cohort and case-control studies. The majority of included studies evaluated a particular aspect of healthcare access eg association between having health insurance and having a usual source of care.(73)

Comparisons with existing literature

We are aware of no other realist reviews examining this topic in this population and of no other reviews of any approach that have examined high-level health system features that promote healthcare accessibility. Other reviews have focused on specific healthcare interventions and most take the point of view of the patient navigating services or systems. This review differs in that we have analysed the upstream health system and service contexts that promote healthcare accessibility and have found generalisable features not specific to a particular intervention or the treatment of particular illnesses. These uncover causative relationships between how healthcare is organised and delivered at a systems and service level and its accessibility for populations experiencing homelessness.

A realist review by Ford et al (74) of factors that impact access to primary care for socioeconomically disadvantaged older people in rural areas focused on the patient journey in accessing healthcare and not on health system features. However, there were similarities between its' findings and ours: at the service level, both studies found barriers related to ease of booking, clarity of information, system and service navigability, provider responsiveness to patient needs, patient empowerment, social status, trust, and clinician empathy and capacity.

There are similarities between our review and Aday and Andersen's 'A framework for the study of access to medical care'.(9) Our CMOCs all explain aspects of the two first boxes in their Framework: health policy (eg financing, education, manpower and organisation) and characteristics of health delivery system (eg resources, organisation).

Our CMOCs also hold some similarities with Levesque et al's 'Patient-centred access to health care: Conceptualising access at the interface of health systems and populations' (75) although it is focused on the individual patient journey. Concepts including acceptability (eg professional values, norms and culture) as well as appropriateness (eg technical and interpersonal quality, coordination and continuity) are important to CMOCs 1, 4, 5 and 6.

Meaning of the study

As in other realist works, our analysis has uncovered common mechanisms occurring in demi-regular patterns experienced in the specific contexts described in the literature. The mechanisms and outcomes do not always occur in a given context. Outcomes are occurring at both a system level and individual level. The topic of access to healthcare for homeless populations is a complex one in and

of itself but it sits within an area of much more complexity: the general treatment of homeless and socially excluded populations in all areas of society including health, housing and social care. The narrow focus on access to healthcare here is due to the specificity needed to conduct sound research, however, this focus is not meant to be seen as an argument for siloed thinking and service provision.

It is well known that lacking adequate housing in and of itself causes illness to occur (2). It is likely that many of the findings in this review can be applied more broadly to all socially excluded populations and form a basis for thinking about how to make a health system fully responsive to populations experiencing a variety of deprivation or differentiation from 'the norm' and thus truly universal, informed by existing approaches such as Universal Design.(76) A non-judgemental, flexible and empathetic approach should be applied to all services for all socially excluded populations and beyond in conjunction with joined up approach to health and social care based (56,69,76).

The first three CMOCs above (CMOC 1-3) were generated almost exclusively from grey literature sources and the next three (CMOC 4-6) were generated primarily from peer reviewed literature. The grey literature included many high-level systems topics including resourcing, funding cycles, the siloed nature of healthcare, health system goal setting and more, as well as describing patient level factors. The majority of the peer reviewed literature described patient level healthcare interactions. In these interactions, contexts are often reflective of systematic or at least service-level planning, managements, culture and leadership decisions and practices but they were not explicitly examined. There is a need for more research exploring healthcare access from a health systems perspective.

Implications for policy and future research

Based on the findings in the review, we recommend the following points for further exploration and research and future policy making in the area:

1. Healthcare services should be funded using multi-year stable funding cycles.
2. Healthcare services for vulnerable populations should be the specific responsibility of a health system entity so it is not allowed to fall between different sectors or budget lines.
3. Healthcare for individuals experiencing homelessness should be provided in settings that do not allow stigma to dominate the culture. Trauma-informed practice and a deep understanding of the life experiences of socially excluded populations at all levels of an organisation or system are key and these should be championed by leadership and management to create a culture that is accessible to all.
4. Healthcare should be easy to navigate for patients. Pathways, procedures and communication should all be highly coordinated and designed with patients' needs in mind. One-to-one support from key workers and peer-advocates increase navigability.
5. Courses of treatment should be planned transparently in collaboration with the patient based on his or her full set of needs and wishes as a full person.
6. Healthcare should be provided in flexible settings with flexible rules to allow for meeting patients' life circumstances and needs where they are.
7. Healthcare system goals should be set with flexibility and complexity in mind.
8. Providers and staff should be recruited based on their motivation in working with the patient population and adequate training should be given to ensure that all staff and providers understand the needs of the population group.

These recommendations will likely benefit most patients, housed or not, and as such investing in them would pay dividends for populations beyond those experiencing homelessness. However, for

homeless populations these are crucial to ensuring that an already vulnerable group does not face further social exclusion when accessing healthcare.

Conclusion

Access to healthcare for populations experiencing homelessness depends on adequately resourcing and training providers to meet the particular needs of patients in a welcoming and attentive setting without stigma and judgment. Services should be closely linked, and staff and providers should be empowered to take responsibility for providing flexible, responsive and opportunistic care in flexible settings. For patients, having a good experience and getting one’s needs met sets a precedent for future appropriate healthcare access. The contexts in which this is possible arise in a respectful, empathetic culture which is created when managers and leaders value and champion it.

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Authorship

RS, CNC, SB, JF and ST developed the research project. RS, JF and CNC developed the search strategy with the help of a subject librarian. RS and JF shaped and refined formal search strategies. RS carried out screening and article selection process, applied a realist logic of analysis to the data, built CMOCs and programme theories, presented to the expert panel and drafted the article. SB screened a subset of articles and facilitated the expert panel meeting. CNC added to the refinement of CMOCs and programme theory. JF provided guidance and oversight of the realist analysis and added to the refinement of CMOCs and programme theory. CNC, SB, JF and ST provided subject matter expertise and critical revisions at multiple stages. All authors read, reviewed and approved the final manuscript.

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Supplementary data

1. Systematic literature searches

Ovid MEDLINE (25 April 2019)

Number	Search details	Hits
1	exp Homeless Persons/	8,246
2	(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "indigenous people" OR "indigenous population*").ab,ti.	16,947
3	exp Health Services Accessibility/	104,062
4	("health service* barrier*" OR "health service* access*" OR "health care access*" OR access adj2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier adj2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet)).ab,ti.	22,007
5	1 OR 2	19,141
6	3 OR 4	118,956
7	5 AND 6	1507
11	limit 10 to (english language AND "review articles")	154

Embase.com (26 April 2019)

Number	Search details	Hits
1	'homelessness'/exp	10,242
2	'homeless person'/exp	1,371
3	'vagrancy'/exp	11
4	(homeless*:ab,ti OR 'homeless person':ab,ti OR 'homeless population*':ab,ti OR 'no fixed address':ab,ti OR 'no fixed abode':ab,ti OR 'emergency accommodation':ab,ti OR 'supported accommodation':ab,ti OR 'supported housing':ab,ti OR hostel*:ab,ti OR 'night shelter':ab,ti OR 'bed and breakfast':ab,ti OR 'hard to reach':ab,ti OR vagrancy:ab,ti OR vagrant*:ab,ti OR	20,523

	'rough sleep*':ab,ti OR 'sleep* rough':ab,ti OR 'street people':ab,ti OR 'street person*':ab,ti OR squatter*':ab,ti OR vagabond*':ab,ti OR 'inadequate housing':ab,ti OR 'hidden homeless*':ab,ti OR 'indigenous people':ab,ti OR 'indigenous population*':ab,ti	
5	'health care access'/exp	55,849
6	("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet)).ab,ti.	28,437
7	#1 OR #2 OR #3 OR #4	23,407
8	#5 OR #6	78,165
9	#7 AND #8	1,286
10	#7 AND #7 AND [review]/lim AND [English]/lim	173

CINAHL (26 April 2019)

Number	Search details	Hits
1	(MH "Homeless Persons")	4,724
2	(MH "Homelessness")	3,378
3	TI homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*"	7,879
4	AB homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*"	8,236
5	(MH "Health Services Accessibility+")	72,405
6	TI 'health service* barrier*' OR 'health service* access*' OR 'health care access*' OR access ADJ2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet) OR barrier ADJ2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet)	80,358
7	AB 'health service* barrier*' OR 'health service* access*' OR 'health care access*' OR access ADJ2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet) OR barrier ADJ2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet)	80,625

8	#1 OR #2 OR #3 OR #4	12,280
9	#5 OR #6 OR #7	81,401
10	#8 AND #9	1,537
11	#8 AND #9 (limited to English and publication type: Meta Analysis, Review, Systematic Review)	101

ASSIA (26 April 2019)

Number	Search details	Hits
1	MAINSUBJECT.EXACT("Homelessness") OR MAINSUBJECT.EXACT("Homeless elderly people") OR MAINSUBJECT.EXACT("Homeless men") OR MAINSUBJECT.EXACT("Homeless families") OR MAINSUBJECT.EXACT("Homeless women") OR MAINSUBJECT.EXACT("Homeless people") OR MAINSUBJECT.EXACT("Homeless pregnant women") OR MAINSUBJECT.EXACT("Homeless older people")	4,008
2	ab(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*")	7,083
3	ti(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*")	3,796
4	ab("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet))	10,687
5	ti("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet))	1,708
6	S1 OR S2 OR S3	7,884
7	S4 OR S5	11,386
8	S6 AND S7	335
9	S6 AND S7 (limited to English language and "literature reviews" and "reviews")	1

2. Extraction table for initial search of peer review literature

Authors	Year	Title	Countries of included studies	Topic/intervention	Aims of review
Aidala, A; Wilson, M; Shubert, V; Gogolishvili, D; Globerman, J; Rueda, S; Bozack, A; Caban, M; Rourke, S.	2016	Housing Status, Medical Care, and Health Outcomes Among People Living With HIV/AIDS: A Systematic Review	United States, France, Spain, Italy, Finland and South Korea	HIV treatment	To review the literature on the role of housing status for medical care and health outcomes among people with HIV infection
Brown, A; Rice, S; Rickwood, D; Parker, A.	2016	Systematic review of barriers and facilitators to accessing and engaging with mental health care among at-risk young people	Australia, UK, USA, Canada	Mental health services	To review the literature on the barriers and facilitators to accessing and engaging with mental health care among young people from potentially disadvantaged groups.
Crock, E.	2016	Access to healthcare services for people living with HIV experiencing homelessness – a literature review	USA, Canada, Australia	Community nursing	To review the literature on strategies that enhance the ability of people living with HIV who are homeless to access health care services, in particular community nursing services.
Dawson, A; Jackson, D.	2013	The primary health care service experiences and needs of homeless youth: A narrative synthesis of current evidence	USA, Australia	Primary healthcare	To review the literature on access to primary healthcare services for homeless youth
Elliott, A.	2013	Meeting the health care needs of street-involved youth	Canada, USA	Full spectrum healthcare	To reviews reasons why youth turn to the street, risks of the ‘street economy’ and barriers to health care.
Evans, T; Berkman, N; Brown, C; Gaynes, B; Weber, R.	2016	Disparities Within Serious Mental Illness	USA	Inpatient, outpatient, primary care, mental health care.	To describe and review the effectiveness of interventions that address disparities among adult patients with serious mental illness.
Hamilton, K; Tolfree, R; Mytton, J.	2018	A systematic review of active case-finding strategies for tuberculosis in homeless populations	USA, UK, France, Germany, Switzerland, Australia, Poland, Spain	Tuberculosis	To review the literature to determine the effectiveness of active case finding for TB control, and identify strategies to improve uptake of screening and the diagnostic pathway in homeless populations in low- and medium-burden settings.
Harris, M; Rhodes, T.	2013	Hepatitis C treatment access and uptake for people who inject drugs: a review	Not specified	Hepatitis C treatment	To review the literature on barriers to hepatitis C treatment access, uptake and completion for people who inject drugs.

		mapping the role of social factors			
Hudson, B; Flemming, K; Shulman, C; Candy, B.	2016	Challenges to access and provision of palliative care for people who are homeless: a systematic review of qualitative research	USA, Canada, Sweden, UK, Australia	Palliative care	To review published qualitative research exploring challenges to palliative care access and provision.
Islam, M; Conigrave, KM.	2007	Assessing the role of syringe dispensing machines and mobile van outlets in reaching hard-to-reach and high-risk groups of injecting drug users (IDUs): A review	Norway, the Netherlands, Italy, Australia, Germany, Switzerland, France, Spain, USA, Canada, Russia, Bulgaria, Lithuania	Needle exchange	To review the effectiveness of syringe dispensing machines and mobile van or bus-based needle syringe programmes in making services accessible to hard-to-reach and high-risk groups of IDUs.
John, W; Law, K.	2011	Addressing the health needs of the homeless	UK and other not specified	Nursing	To review the literature on the health needs of homeless people and what role can nurses play in addressing homeless people's health needs
Jones, C; Perera, A; Chow, M; Ho, I; Nguyen, J; Davachi, S.	2009	Cardiovascular disease risk among the poor and homeless - What we know so far	Not specified	Cardiovascular care	To review the literature detailing the relationships between poverty, homelessness and cardiovascular disease.
Kaduszkiewicz, H; Bochon, B; van den Bussche, H; Hansmann-Wiest, J; van der Leeden, C.	2017	The Medical Treatment of Homeless People	Not specified	Primary and inpatient hospital care	Review the medical treatment of homeless people in Germany
Klop, H; de Veer, A; van Dongen, S; Francke, A; Rietjens, J; Onwuteaka-Philipsen, B.	2018	Palliative care for homeless people: a systematic review of the concerns, care needs and preferences, and the barriers and facilitators for providing palliative care	USA, Canada, Sweden, UK, Australia, Ireland	Palliative care	To review the evidence of the concerns and palliative healthcare needs for homeless people, as well as the conditions for delivering good quality palliative care for the target group.
Lamb, J; Bower, P; Rogers, A; Dowrick, C; Gask, L.	2012	Access to mental health in primary care: a qualitative meta-synthesis of evidence from the experience of people from 'hard to reach' groups	UK, Finland, Switzerland	Mental health treatment in primary care	To review understand barriers to mental health treatment for eight socially excluded groups incl homeless.
Luchenski, S; Maguire, N; Aldridge, R; Hayward, A; Story,	2018	What works in inclusion health: overview of effective interventions for	Not specified	Healthcare, social care, housing	To review effective interventions that directly affect health (eg, pharmacology, counselling,

A; Perri, P; Withers, J; Clint, S; Fitzpatrick, S; Hewett, N.		marginalised and excluded populations			screening, prevention) or the wider determinants of health (eg, housing, social support, training and education, employment, crime, and recidivism).
Lutge, E; Wiysonge, C; Knight, S; Sinclair, D; Volmink, J.	2015	Incentives and enablers to improve adherence in tuberculosis	USA, Timor-Leste, South Africa	Tuberculosis	To review the effects of material incentives and enablers given to patients undergoing diagnostic testing for TB, or receiving drug therapy to prevent or cure TB.
Martens, W.	2009	Vulnerable categories of homeless patients in Western societies: Experience serious barriers to health care access	Not specified	Primary care, mental health care, addiction treatment	To review healthcare access for especially vulnerable categories of homeless persons.
Robards, F; Kang, M; Usherwood, T; Sanci, L.	2018	How Marginalized Young People Access, Engage With, and Navigate Health-Care Systems in the Digital Age: Systematic Review	UK, USA, Australia, Canada, New Zealand, and Portugal	Full spectrum healthcare	To review what is known about marginalized young people's access to, engagement with, and navigation of the health system in the digital age.
Sumalinog, R; Harrington, K; Dosani, N; Hwang, S.	2017	Advance care planning, palliative care, and end-of-life care interventions for homeless people: A systematic review	USA, Canada, Sweden	Shelter based palliative care programme, completion of advance directive, professional support home services.	To review the evidence surrounding advance care planning, palliative care, and end-of-life care interventions for homeless persons.
Tankimovich, M.	2013	Barriers to and interventions for improved tuberculosis detection and treatment among homeless and immigrant populations: a literature review	USA, UK, Spain, Israel, the Netherlands, Ethiopia	TB detection and treatment	To review barriers to the detection and treatment of TB in immigrant and homeless populations in the United States and to review effective interventions for improved detection and treatment.
Wallace, C; Farmer, J; McCosker, A.	2018	Community boundary spanners as an addition to the health workforce to reach marginalised people: a scoping review of the literature	USA, UK, the Netherlands, Australia, New Zealand.	Lay person patient navigators/peer workers/ link workers.	To review the literature on the role played, in health service delivery and health literacy development in high- income countries, by community-based lay persons
Weber, J; Lee, R; Martsolf, D.	2017	Understanding the health of veterans who are homeless: A	USA	Public health nursing	To review the literature of what is known about the health of homeless veterans.

		review of the literature			
White, B; Logan, A; Magwood, G.	2016	Access to Diabetes Care for Populations Experiencing Homelessness: an Integrated Review	USA and Canada	Diabetes care	To review the literature to identify barriers and facilitators to accessing diabetes care and managing diabetes for homeless populations.
White, B; Newman, S.	2015	Access to primary care services among the homeless: a synthesis of the literature using the equity of access to medical care framework	USA	Primary care	To review the literature to identify barriers and facilitators to primary care access among the homeless.

3. Glossary of terms

Context: environments, settings, circumstances or structures that trigger mechanisms (behaviours, emotional responses) in individuals.

Context-mechanism-outcome configuration (CMOC): configuration that explains the causative relationship between a given context which causes a mechanism to be triggered to produce and outcome.

Mechanism: the response to programme, intervention or process in a particular context in a person operating in that context, leading to a change in behaviour.

Outcome: impact, change or action arising when a particular mechanism is activated in a particular context

Programme theory: a combined set of theoretical explanations of how a particular process, intervention or programme is expected to work

Realist approach: the realist approach to research used in realist review and realist evaluation is a theory driven way to explain generative causation in areas of study that are highly complex and in which empirical testing is not possible

Relevance: the determination of whether a particular study, report, article etc is relevant to the research question

Rigour: the determination of whether a particular finding or piece of information in a given source was arrived upon in a way that was robust and faithful to the particular method being used. If a study was done well adhering to its method it is more likely to be rigorous however all sources of data can yield pieces of helpful information.

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Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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Abstract

Objective

The objective of this study was to identify and understand the health system contexts and mechanisms that allow for homeless populations to access appropriate healthcare when needed.

Design

A realist review.

Data sources

Ovid MEDLINE, embase.com, CINAHL, ASSIA and grey literature until April 2019.

Eligibility criteria for selecting studies

The purpose of the review was to identify health system patterns which enable access to healthcare for people who experience homelessness. Peer reviewed articles were identified through a systematic search, grey literature searching, citation tracking and expert recommendations. Studies meeting the inclusion criteria were assessed for rigour and relevance and coded to identify data relating to contexts, mechanisms and/or outcomes.

Analysis

Inductive and deductive coding was used to generate Context-Mechanism-Outcome configurations which were refined and then used to build several iterations of the overarching programme theory.

Results

Systematic searching identified 330 review articles, of which 24 were included. An additional 11 grey literature and primary sources were identified through citation tracking and expert recommendation. Additional purposive searching of grey literature yielded 50 records of which 12 were included for a total of 47 included sources. The analysis found that healthcare access for populations experiencing homelessness is improved when services are coordinated and delivered in a way that is organised around the person with a high degree of flexibility and a culture that rejects stigma generating trusting relationships between patients and staff/practitioners. Health systems should provide long-term, dependable funding for services to ensure sustainability and staff retention.

Conclusions

With homelessness on the rise internationally health care systems should focus on high level factors such as funding stability, building inclusive cultures and setting goals which encourage and support staff to provide flexible, timely and connected services to improve access.

Article summary

Strengths and limitations

- This is the first realist review of access to healthcare for homeless populations
- The review uncovered modifiable contexts and provides important lessons for policy makers working in this area
- The search strategy was focused on review articles to identify high-level themes meaning we may have missed relevant sources as well as important information about contextual factors

and/or the nature of causative mechanisms in the included literature under review. However, iterative searching was done and an expert panel was engaged in the analysis to offset these potential weaknesses.

Background

Homelessness is an extreme expression of social exclusion, experienced by people lacking a stable and secure place to live. According to the European Typology of Homelessness and Housing Exclusion (ETHOS) homelessness occurs in four ways: rooflessness (sleeping rough, without any shelter); houselessness (having somewhere to sleep but in a temporary shelter or institution); living in insecure housing (eg insecure tenancies, threat of eviction, violence); living in inadequate housing (overcrowding, unfit housing, caravans on illegal campsites).(1) There are various subgroups within the homeless population, including families and single adults. Some single adults have children but often their children do not live with them.(2)

Populations experiencing homelessness along the full spectrum set out above face both increased difficulty accessing healthcare and poorer outcomes than housed populations, with chronically homeless individuals having worse clinical outcomes than those experiencing intermittent homelessness or as a one-off crisis.(3–5) Populations experiencing homelessness access primary care less than housed populations and utilise costly unscheduled acute healthcare at a higher rate than their housed peers.(5–7)

Accessing healthcare is complex because it happens along a continuum of need, time and access points, and is delivered in open systems, dependent on many interacting variables on both the supply side (availability, hours, location, staffing, resources, price, etc) and on the demand side (knowledge of health need, availability of the needed time and resources, distance to service location, psychological factors, disposable income, etc). The settings and constructs in which these variables interact are themselves complex (eg hierarchical, goal-driven cultures in healthcare). As a result, inputs into a health system act in non-linear ways and at their intersection(s), a variety of intended and unintended outcomes (patients accessing the right care, or inadequate care, or not accessing care at all, accessing part of a full course of treatment; patients experiencing stigma or fear or other indirect outcomes; practitioners experiencing stress or professional insecurities, etc) emerge as more than simply the sum of their parts.(8–12)

In this review we are primarily interested in understanding the health system factors that impact access to healthcare. We conceptualise health system factors and access using the World Health Organisation (WHO) building blocks framework (13) including service delivery, health workforce, and leadership/governance, and Aday and Andersen's Framework for the Study of Access to Medical Care (12) with health system factors organised under the categories of 'health policy' and 'characteristics of health delivery system'.

Supply side factors describe the full set of inputs that go into a health system designed to meet the needs of full populations, as much as possible. Meeting the needs of the majority may not adequately meet the needs of groups experiencing social exclusion. In this study we explore how, why, in what circumstances and to what extent these inputs impact healthcare accessibility for the population of interest: single adults experiencing long term homelessness and complex needs.

Such homeless single adults with complex needs may experience any of the types of homelessness outlined according to ETHOS above. We use the term 'populations experiencing homelessness' to

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refer to this group in this article. The lack of housing in and of itself is not the only driver of poor access to healthcare and poor health outcomes in this population. Homelessness is a marker for and is associated with ‘tri-morbidity’ - the combination of physical ill-health, mental ill-health, and substance misuse.(14) In addition to lacking stable housing, populations experiencing homelessness often face a host of health problems and addiction behaviours associated with complex life circumstances and events including early childhood trauma, having been in care, relationship breakdowns, poverty, lack of employment and more.(2,15) While these are common experiences, it is important to stress that they happen to varying degrees and sometimes not at all.(15)

The majority of research exploring access to healthcare for homeless populations has focused on individual level factors and particularly on why, whether and how individuals experiencing homelessness do or do not access healthcare (3,16–24). A focus on individual level factors is illuminating but without understanding and balancing this with health system factors there is a risk that responsibility for accessing services is inappropriately placed with the individual (25,26). This review synthesises health system factors that determine healthcare accessibility in order to explore how whole systems can make appropriate healthcare services accessible to populations experiencing homelessness and complex needs.

In this study, we used the WHO’s definition of a ‘health system’: ‘(i) all the activities whose primary purpose is to promote, restore and/or maintain health; (ii) the people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people’s legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health’.(27)

For this study we used realist review in the school of Pawson and Tilley (28,29) because it is a methods-neutral approach designed for examining complex interventions or topics by seeking to identify unseen mechanisms which produce a given outcome as well as the contexts in which they are triggered. If activated, mechanism produce intended and unintended outcomes. Analysis takes place by explaining the causal relationship between contexts, mechanisms and outcomes in the construction of Context-Mechanism-Outcome configurations (CMOCs) (see glossary of terms in supplementary file).We chose to focus on review articles to enable a broader health system lens since an initial scope of the literature showed a substantial body of published literature which would have been unmanageable. Subsequent rounds of searching were undertaken to ensure key literature was not missed.

A review of health system factors which improve access to health care for populations experiencing homelessness is needed because an individual level analysis does not fully explain systemic causes of inadequate access to essential health services. This review sought to answer the following question:

- How, why, for whom, in what circumstances and to what extent can healthcare systems improve access to healthcare for populations experiencing long-term homelessness?

Methods

Realist research is a theory-driven approach which seeks to understand causal mechanisms in complex areas of study by asking how, why, for whom, in what circumstances and to what extent something works (or does not work). A realist review approach was chosen because access to healthcare is an open-ended, complex area of study with many entry and exit points for service users and one where factors interact with each other creating outcomes (eg a homeless patient

leaving ED without being seen) that are more than the sum of inputs (eg ED is nominally accessible because it is always physically open but the quality of access is impacted by many potential factor eg a homeless patient's experiences of stigma). Using a realist review in this study contributes to the current knowledge base by uncovering causal mechanisms that are at play at the health systems level but which are not measurable and may have been missed or not fully explained in other studies.

The review followed a study protocol based on Pawson's five iterative stages: 1. locating existing theories, 2. searching for evidence, 3. selecting articles, 4. extracting and organising data and 5. synthesising the evidence and drawing conclusions. (28) The phases of the review are illustrated below in fig 1.

[Insert Figure 1]

Initial programme theory

A rough initial programme theory (see supplementary file) was developed based on informal reading and discussions with content experts. It listed potentially important contexts (eg long-term homelessness, regular source of care, competing subsistence needs, knowledge of symptoms and when to seek care) and mechanisms (eg stigma and discrimination, power dynamic between provider and patient, mistrust, fear, feelings of shame/low self-esteem) affecting the outcome of healthcare access for populations experiencing homelessness.

Searching

Iterative searching took place in three rounds. First a systematic search of relevant published peer-reviewed review articles of any method took place. With content expert input, a subject librarian helped design the search strategy focusing on two broad thematic clusters: homelessness and healthcare access. Pilot searching was undertaken and final search terms were agreed. A formal search of four electronic databases (Ovid MEDLINE, embase.com, CINAHL, ASSIA) was undertaken in April 2019. Results from each search were exported to Endnote X9 and deduplicated automatically and manually. Full search terms can be found in supplementary materials.

Additional searching was later undertaken in two rounds. First, citation tracking was used to locate important primary studies included in several of the reviews. And at this stage, further peer-reviewed and grey literature sources were included as recommended by the expert panel. Second, a search was conducted to identify additional relevant grey literature sources via the internet and websites of organisations working on homeless health. These sources were selected to shed light on CMOCs that were not fully developed using the data resulting from the systematic search of the peer-reviewed literature and to build additional CMOCs to more fully answer the research question.

Selection and appraisal of documents

Studies were included based on their relevance to the review question, ie if they provided information about access to healthcare for homeless populations and would contribute to the development and refinement of the programme theory. Only studies in English were included. RS screened all titles and abstracts and SB independently screened a random 10% sample. During the screening phase an initial evaluation of rigour and relevance (see glossary in supplementary file for definitions) was done and as was the case at later stages when additional literature was collected. See full search in fig 2.

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Data extraction and analysis

After the screening of the peer-reviewed literature was completed, a summary table was created listing key features of each study (table 1).

The first round of coding took place in NVivo 12 of the identified peer-reviewed articles from the systematic search starting with the articles deemed most useful regarding rigour, relevance and trustworthiness (eg articles that had rich data and were well done), as they were expected to best inform the development of CMOCs and programme theory. Coding was first done inductively under broad thematic headings of factors that promote and impede healthcare access as described in the literature. Codes were then organised into groups depending on whether they were related to the individual seeking care, the healthcare practitioner and/or programme providing care or the health service/ health system in which that healthcare is organised. The rest of the peer-reviewed articles were coded deductively using the codes already created with more codes inductively added as needed.

Using a realist logic of analysis, CMOCs were then created from data in the review articles included after the first round of searching, drawing from several sources to construct each CMOC. The purpose of the analysis was to identify general patterns which can be expected to occur, according to the data, with some regularity (in realist parlance called ‘demi-regularities’), rather than to be exhaustive. A list of CMOCs were written in a Word document with its supporting data excerpts listed below. Iterative cycles of analysis took place to refine CMOCs. Through the analysis process, some CMOCs were eliminated and some were combined if they were similar to others.

The CMOCs generated from the data extracted from the peer-reviewed literature were further refined after a formal expert panel meeting with representation by members of an inclusion health team in a local hospital (consultant doctor and social worker), the director of policy for a national homeless charity, an inclusion health GP, a representative for the Health Service Executive, and two academics who work in the areas of homeless healthcare and health policy. The expert panel discussion led to the strengthening of the research in several key ways with the following two being the most important: First, a discussion of the diversity within populations experiencing homelessness resulted in refining the focus of CMOCs to outcomes relating to the specific homeless sub-population of single adults experiencing long-term homelessness and complex needs. Second, discussions revealed that sufficient data about a number of important health system features which impact access, eg financing, governance, organisational culture, policies and strategies, were missing from the peer-reviewed literature sources and various suggestions were made for sources that would inform that shortcoming.

To attempt to more fully explain high level health system features which impact access additional data were collected through citation tracking and through additional searching of grey literature sources. The results of these searches were screened and then coded in a similar way to the peer-reviewed literature. Initial codes were developed inductively from the first several sources and then applied deductively with new codes created as needed as the remainder of the sources were coded. Labels of context, mechanism and outcome were assigned when possible and at times not assigned if a code did not have a clear placement. Contexts, mechanisms and outcomes are not static labels but can change in relation to each other eg something can be a context in one instance but a mechanism in another and an outcome can become a context for another CMOC depending on its explanatory role in the given configuration(30). Codes were then organised into groups depending on whether they were related to the individual seeking care, the healthcare provider and/or

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programme providing care or the health service/ health system in which that healthcare is organised.

Patient and public involvement

No patient involved.

Results

Search results and study characteristics

In total, 330 titles and abstracts were screened and 37 published review articles were deemed to meet the inclusion criteria and these then underwent full-text review. Next, during a close reading of each full article, it was determined that 13 of the 37 articles that were initially included in the analysis did not fully meet relevance and/or rigour standards and they were thus excluded leaving a total of 24 articles for inclusion (see table 1). All studies included in the reviews were from high income countries, the majority having focused on the USA, Australia and the UK.

An additional 23 primary peer-reviewed articles and grey literature sources were identified through citation tracking, from expert recommendations and through a subsequent purposive search of the grey literature via Google and the websites of relevant organisations. The majority of these were from the UK.

[Insert figure 2]

Number	Authors	Year	Title	Countries	Topic/intervention	Aims of review
1	Aidala, A; Wilson, M; Shubert, V; Gogolishvili, D; Globerman, J; Rueda, S; Bozack, A; Caban, M; Rourke, S.	2016	Housing Status, Medical Care, and Health Outcomes Among People Living With HIV/AIDS: A Systematic Review	United States, France, Spain, Italy, Finland and South Korea	HIV treatment	To review the literature on the role of housing status for medical care and health outcomes among people with HIV infection
2	Brown, A; Rice, S; Rickwood, D; Parker, A.	2016	Systematic review of barriers and facilitators to accessing and engaging with mental health care among at-risk young people	Australia, UK, USA, Canada	Mental health services	To review the literature on the barriers and facilitators to accessing and engaging with mental health care among young people from potentially disadvantaged groups.
3	Crock, E.	2016	Access to healthcare services for people living with HIV experiencing homelessness – a literature review	USA, Canada, Australia	Community nursing	To review the literature on strategies that enhance the ability of people living with HIV who are homeless to access health care services, in particular community nursing services.
4	Dawson, A; Jackson, D.	2013	The primary health care service experiences and needs of homeless youth: A narrative	USA, Australia	Primary healthcare	To review the literature on access to primary healthcare services for homeless youth

			synthesis of current evidence			
5	Elliott, A.	2013	Meeting the health care needs of street-involved youth	Canada, USA	Full spectrum healthcare	To reviews reasons why youth turn to the street, risks of the 'street economy' and barriers to health care.
6	Hamilton, K; Tolfree, R; Mytton, J.	2018	A systematic review of active case-finding strategies for tuberculosis in homeless populations	USA, UK, France, Germany, Switzerland, Australia, Poland, Spain	Tuberculosis	To review the literature to determine the effectiveness of active case finding for TB control, and identify strategies to improve uptake of screening and the diagnostic pathway in homeless populations in low- and medium-burden settings.
7	Harris, M; Rhodes, T.	2013	Hepatitis C treatment access and uptake for people who inject drugs: a review mapping the role of social factors	Not specified	Hepatitis C treatment	To review the literature on barriers to hepatitis C treatment access, uptake and completion for people who inject drugs.
8	Hudson, B; Flemming, K; Shulman, C; Candy, B.	2016	Challenges to access and provision of palliative care for people who are homeless: a systematic review of qualitative research	USA, Canada, Sweden, UK, Australia	Palliative care	To review published qualitative research exploring challenges to palliative care access and provision.
9	Islam, M; Conigrave, KM.	2007	Assessing the role of syringe dispensing machines and mobile van outlets in reaching hard-to-reach and high-risk groups of injecting drug users (IDUs): A review	Norway, the Netherlands , Italy, Australia, Germany, Switzerland, France, Spain, USA, Canada, Russia, Bulgaria, Lithuania	Needle exchange	To review the effectiveness of syringe dispensing machines and mobile van or bus-based needle syringe programmes in making services accessible to hard-to-reach and high-risk groups of IDUs.
10	John, W; Law, K.	2011	Addressing the health needs of the homeless	UK and other not specified	Nursing	To review the literature on the health needs of homeless people and what role can nurses play in addressing homeless people's health needs
11	Jones, C; Perera, A; Chow, M; Ho, I; Nguyen, J; Davachi, S.	2009	Cardiovascular disease risk among the poor and homeless - What we know so far	Not specified	Cardiovascular care	To review the literature detailing the relationships between poverty, homelessness and cardiovascular disease.

12	Kaduszkiewicz, H; Bochon, B; van den Bussche, H; Hansmann-Wiest, J; van der Leeden, C.	2017	The Medical Treatment of Homeless People	Not specified	Primary and inpatient hospital care	Review the medical treatment of homeless people in Germany
13	Klop, H; de Veer, A; van Dongen, S; Francke, A; Rietjens, J; Onwuteaka-Philipsen, B.	2018	Palliative care for homeless people: a systematic review of the concerns, care needs and preferences, and the barriers and facilitators for providing palliative care	USA, Canada, Sweden, UK, Australia, Ireland	Palliative care	To review the evidence of the concerns and palliative healthcare needs for homeless people, as well as the conditions for delivering good quality palliative care for the target group.
14	Lamb, J; Bower, P; Rogers, A; Dowrick, C; Gask, L.	2012	Access to mental health in primary care: a qualitative meta-synthesis of evidence from the experience of people from 'hard to reach' groups	UK, Finland, Switzerland	Mental health treatment in primary care	To review understand barriers to mental health treatment for eight socially excluded groups incl homeless.
15	Luchenski, S; Maguire, N; Aldridge, R; Hayward, A; Story, A; Perri, P; Withers, J; Clint, S; Fitzpatrick, S; Hewett, N.	2018	What works in inclusion health: overview of effective interventions for marginalised and excluded populations	Not specified	Healthcare, social care, housing	To review effective interventions that directly affect health (eg, pharmacology, counselling, screening, prevention) or the wider determinants of health (eg, housing, social support, training and education, employment, crime, and recidivism).
16	Lutge, E; Wiysonge, C; Knight, S; Sinclair, D; Volmink, J.	2015	Incentives and enablers to improve adherence in tuberculosis	USA, Timor-Leste, South Africa	Tuberculosis	To review the effects of material incentives and enablers given to patients undergoing diagnostic testing for TB, or receiving drug therapy to prevent or cure TB.
17	Martens, W.	2009	Vulnerable categories of homeless patients in Western societies: Experience serious barriers to health care access	Not specified	Primary care, mental health care, addiction treatment	To review healthcare access for especially vulnerable categories of homeless persons.
18	Robards, F; Kang, M; Usherwood, T; Sanci, L.	2018	How Marginalized Young People Access, Engage With, and Navigate Health-Care Systems in the Digital Age: Systematic Review	UK, USA, Australia, Canada, New Zealand, and Portugal	Full spectrum healthcare	To review what is known about marginalized young people's access to, engagement with, and navigation of the health system in the digital age.

19	Sumalinog, R; Harrington, K; Dosani, N; Hwang, S.	2017	Advance care planning, palliative care, and end-of-life care interventions for homeless people: A systematic review	USA, Canada, Sweden	Shelter based palliative care programme, completion of advance directive, professional support home services.	To review the evidence surrounding advance care planning, palliative care, and end-of-life care interventions for homeless persons.
20	Tankimovich, M.	2013	Barriers to and interventions for improved tuberculosis detection and treatment among homeless and immigrant populations: a literature review	USA, UK, Spain, Israel, the Netherlands , Ethiopia	TB detection and treatment	To review barriers to the detection and treatment of TB in immigrant and homeless populations in the United States and to review effective interventions for improved detection and treatment.
21	Wallace, C; Farmer, J; McCosker, A.	2018	Community boundary spanners as an addition to the health workforce to reach marginalised people: a scoping review of the literature	USA, UK, the Netherlands , Australia, New Zealand.	Lay person patient navigators/peer workers/ link workers.	To review the literature on the role played, in health service delivery and health literacy development in high-income countries, by community-based lay persons
22	Weber, J; Lee, R; Martsolf, D.	2017	Understanding the health of veterans who are homeless: A review of the literature	USA	Public health nursing	To review the literature of what is known about the health of homeless veterans.
23	White, B; Logan, A; Magwood, G.	2016	Access to Diabetes Care for Populations Experiencing Homelessness: an Integrated Review	USA and Canada	Diabetes care	To review the literature to identify barriers and facilitators to accessing diabetes care and managing diabetes for homeless populations.
24	White, B; Newman, S.	2015	Access to primary care services among the homeless: a synthesis of the literature using the equity of access to medical care framework	USA	Primary care	To review the literature to identify barriers and facilitators to primary care access among the homeless.

Table 1 Summary table of included studies from systematic peer-review search

Focus of the review

Initial analysis resulted in two broad conceptual sets of findings: one related to how services are organised and delivered and another related to the process of training and the development of the right professional skills, attitude and awareness that allows staff to best provide such services. Based on team discussions and with the recognition that we would not be able to fully explore all findings,

we decided to focus on the topics most relevant to the research question. The findings around service delivery and organisation were chosen as the focus for the next stage of the review.

Programme theories and CMOCs

Using the data collected from the three rounds of literature searching, a total of 73 individual CMOCs were generated through several rounds of analysis over the course of several months. There was overlap among some of the CMOCs but it was important to capture and articulate the relationship between each distinct context, mechanism and outcome and to interrogate whether they shared a causal relationship before combining some together and rejecting others.

Once that analysis was completed, we grouped together similar CMOCs into the six consolidated CMOCs as described in detail in the narrative below.

In the CMOCs below, while the contexts operate on a health system or service level, mechanisms are activated within individuals (eg patients, healthcare practitioners, staff) which makes intuitive sense as a mechanism 'involves the interaction between particular inputs (or resources) and human reasoning, which produces a particular outcome (or not)' (31). It is clear in this analysis that even in an examination of systems and systemic workings, causal processes depend on the people who operate within those systems and how they respond to the conditions they find themselves within.

CMOC 1: Resourcing

The first consolidated CMOC (fig 3) explores contexts where mainstream healthcare practitioners and staff (in hospital and primary care settings) are expected to treat a high need patient group (long-term homeless populations with complex needs) but are not being provided adequate resources and incentives (eg extra funding for longer appointments and more coordination) while also having inadequate expertise in the particular needs and life experiences of this group. (32–35) In these contexts, practitioners and staff feel that servicing patients experiencing homelessness is professionally demanding and challenging. They experience feelings of professional inadequacy and lack of confidence and display an unwelcoming attitude toward patients.(17,32–34,36–40) As a result, patients' experience of the care environment is a negative one which causes them to choose not to seek care at an appropriate time (eg seeking care from a GP before a condition gets worse and acute care is needed).(17,32,37,41–43)

The outcome of not seeking care when the care environment is not welcoming becomes a new context which leaves patients instead to seek care only when the need is emergent and out of desperation, and at a later stage than ideal and at a setting that is readily available (such as the ED).(17,37,39,41,44) This results in exacerbated need leading to more complex, intensive and costly care which ultimately generates poorer health outcomes.(37,41,45)

[Insert figure 3]

CMOC 2: Funding stability and source

CMOC2 (fig 4) shows that in a context where funding for health services comes from multiple sources and where funding cycles are short and unreliable, eg grant funding for specific purposes with a short duration,(38,41,43,46) staff members employed on short term contracts experience a lack of a sense of stability and sustainability because they are in series of continual contract renewals and do not have job security, and especially in periods of austerity, may experience wage cuts and wage freezes. The precarious sustainability of the services they work for lead to staff being asked to do more with less but job satisfaction is low because services are permanently in a state of flux making it difficult to achieve good outcomes for people who need extra time and attention.

Because they work for organisations with important missions they are expected to not care as much about pay and conditions as they care about helping..(35,43,47–49) The outcome is difficulties hiring and retaining highly skilled and experienced staff members.(35,43,47–49)

[Insert figure 4]

CMOC 3: Health system fragmentation and goals

CMOC3 (fig 5) shows that in a context where various parts of a fragmented health system operate in silos with a narrowly defined scope of goals,(37,38,41,43,50) staff engage in organisation-centred thinking and prioritise the goals of the health system even when they are not suitable for responding to the complex needs of homeless patients whose care should be organised across a number of domains. Staff often lack knowledge of how to best meet the needs of patients experiencing homelessness and complex needs while health system goals and targets are more clearly defined as part of professional structures and workstreams. (37,38,50) Staff and practitioners are not incentivised or empowered to take responsibility for creating holistic, coordinated and flexible ways of organising care around a patient’s needs and wishes because they are instead asked to meet narrowly defined targets tied to funding and the expectations of commissioners. As a result, healthcare is organised around explicit and implicit health system goals not the needs or goals of the person.(18,37,38,41,50,51)

[Insert figure 5]

CMOC 4: Care organised around the person

In contrast to CMOC 3, CMOC 4 (fig 6) shows that when care is organised around the person and their needs, resulting outcomes produce conditions that promote healthcare accessibility. In this context, the mechanism of flexibility and personalisation is triggered, allowing patients to feel that their particular needs are understood and met.(25,35,39,50,52–55)

Additionally, health system navigability is enhanced through having coordinated and co-located care,(7,35,39,40,53,56–58) through having clear and intuitive patient pathways managed by staff and practitioners who create connectivity between services by bringing patients along to the next step, (18,39,53,59,60) and through accompanying patients either by link workers or peer advocates.(25,39,60–64) Having this kind of support helps patients by providing extra motivation and confidence in seeking health services when needed and navigating institutional locations such as hospitals and clinics, and negotiating patient pathways which may be complex.(39,41,53,60) Peer advocates have a unique understanding of the experience the patient is having and have the ability to meet patients where they are and provide emotional and practical support.(39,44,58,61–63)

And finally, when care is organised around the person it is inherently respectful of other demands on their time and their particular goals (or lack thereof) for their own health. Services are characterised by timeliness and openness. For example, as many services are carried out in one clinical encounter as possible and a course of treatment is chosen through shared and transparent decision making. As a result, responsibility is placed on the service to make itself fit with the patient’s life circumstances and to share knowledge and decision making to promote initial accessibility and beyond.(25,39,57,59–62,65)

[Insert figure 6]

CMOC 5: Inclusive culture and leadership

CMOC 5 (fig 7) examines the importance of culture and leadership in creating inclusive health system contexts. Through the dominant culture the value assigned to people from stigmatised groups contributes to their experience of poorer care because of prejudice and stereotypes commonly held about them. Populations experiencing homelessness face stigma when engaging with all areas of society including healthcare settings.(25,52,62,66,67) Creating the right cultural context depends on leadership and management through explicit commitments to values of inclusivity and whole organisation policies and processes.(33,37,41,43,51,68–70)

In the articles reviewed, stigma is a crucial mechanism which keeps individuals experiencing homelessness from accessing healthcare (17,18,25,35,39,58,61,71) (the impact of stigma on the patient experience is explored above in CMOC1). On the other hand, when individuals experience an environment that is non-stigmatising, respectful, empathetic, accepting, sensitive and understanding of their life experience and particular needs, trust develops and a positive feedback loop is created leading to a productive patient/practitioner relationship developing over time. Still operating in a context which explicitly values and promotes inclusivity, trust becomes a reinforcing mechanism whereby deepening trust facilitates ongoing engagement which leads ultimately to ongoing appropriate access to health services at the right time and right place.(39,40,52–54,57,61–63)

[Insert figure 7]

CMOC 6: Flexible healthcare delivery

CMOC 6 (fig 8) explores the context of flexibility in healthcare services delivery in terms of appointment length, availability of walk-in appointments and self-referral, opportunistic add-on services such as vaccinations and screenings, allowing dogs, trauma-informed practice and understanding of behaviours that trauma can result in, and more.(25,32,43,46,52,53,56,57,61,72–75) Flexibility is also a mechanism in CMOC 4, while here it is acting as a context characterising the approach to and design of care delivery.

In this context, practitioners and staff with expertise and experience with the population group are able to anticipate the common interventions that may be needed, to adapt to the particular needs of the patient in front of them, and to use their expertise to provide the treatment that is most needed in the current situation. Communication is tailored to the patient with awareness of potential literacy issues common in the population.(39,40,44,54,59,60,62,65,76) This stands in contrast to what happens when services do not have proper resources and when providers and staff do not have expertise and experience as explored in CMOC1.

In the current context, patients' needs are identified and if met in the manner described in CMOC4, this experience forms a new context. In this new context ('needs identified'), experiences of lowered frustration and fear is engendered in patients because they do not have to fit into a mould of a health service which is difficult to navigate and not likely designed with them in mind.(40,44,52,56,57,61) Resulting from that, patients feel seen and understood which becomes a new context ('patients feel seen and understood') in which ongoing engagement from both sides is possible and pathways can be created with high levels of flexibility and assistance.(44,52–54,61) Patients are able to follow these peer, key-worker and/or health staff assisted pathways and ultimately this leads to ongoing appropriate access to services over a course of treatment or on an ongoing basis as needed. A cyclical nature of an ongoing and trusting relationship is established and reinforced over multiple interactions.(25,39,44,61–63,72,77)

[Insert figure 8]

Full programme theory

The overarching programme theory synthesising the full set of findings from this review (fig 9), shows that a set of interlinking factors must all be in place for healthcare access to be successful for populations experiencing homelessness.

It shows that the combination of resourcing, funding stability, health system fragmentation and goals, the degree to which care is organised around the person, the degree to which leadership promotes an inclusive culture, and the flexibility of healthcare delivery set the stage for accessibility.

When resources (funding, expertise, experience of patient group) are adequate, when funding cycles are long and stable, when there is a low degree of fragmentation and health service goals support integrated working, when healthcare is organised around the patient and delivered flexibly, and when services are provided in an inclusive culture championed by leadership then services can be provided in the way explained in the blue boxes and staff are able to operate with the approach in the green boxes. Services can be delivered in a manner that is connected (eg services speak to each other), personalised (the specific needs of the particular patient are addressed), timely (services are available when the patient needs them and again at each step in a patient pathway with multiple steps), expert-led (when staff have adequate expertise and experience they can anticipate patients' needs, they show respect and empathy, feel comfortable being flexible and taking time to allow relationships to develop, they adapt to the situation and the primary need in the moment, etc), intuitive (patient pathways are easy to navigate and there is assistance from key or peer workers), holistic (providing services in a way that supports the full person) and transparent (in that confidentiality is clear and decisions are made between patient and provider in an open and honest way).

On the other hand, when those system features are not in place or not fully in place, the patient experience of health services is impacted negatively. Eg when health services are provided in a fragmented way, it is not possible to provide timely care because each service operates on their own schedule and each step on a patient pathway depends on a referral from the last.

[Insert figure 9]

Discussion

Statement of principal findings

Populations experiencing homelessness face a number of barriers to accessing healthcare at the right time and at the right place. Important health system contexts which impact access are resourcing, training, funding cycles, health system fragmentation, health system goals, how care is organised, culture, leadership and flexibility of care delivery. Key mechanisms which are activated in these contexts are staff attitudes, staff confidence, staff experience of stability and sustainability, organisation-centred thinking, flexibility, transparency, timeliness, demonstration of respect and empathy, trust, adaptability, and anticipation.

Strengths and limitations

In this review we have used the RAMESES quality standards (78) to rigorously and systematically review and synthesise the literature included here.

This analysis has taken a high-level view of systematic factors across a breadth of data not focused on specific interventions or disease areas. Our findings have uncovered modifiable health system and service contexts that are applicable and transferrable internationally. The analysis has been informed by the involvement of content experts and stakeholders who have confirmed and challenged findings resulting in further refinement.

Like any review this one relies on the available literature. A potential limitation of this study is that the initial search of peer-reviewed articles included only literature reviews which may mean that we missed some articles. However, a large volume of relevant data was identified through the reviews and these were further augmented by citation tracking, expert advice and additional searching to identify additional key documents. Much like a majority of the literature on access to healthcare for populations experiencing homelessness the initial programme theory took the perspective of an individual seeking to access healthcare services. However, as the goal of this review was to explain health system factors impacting healthcare access for populations experiencing homelessness, the initial programme theory did not inform the direction we sought to move in well. Uncovering literature sources discussing system level factors took more digging.

None of the included peer review studies specifically analysed health system features. Some analysed service/programme level features that promote or impede access (40,63) but the majority of reviews synthesised and described the accessibility of particular individual level treatments such as for TB, diabetes, palliative care and cardiovascular disease.(39,52,60,65,71,79,80) However, grey literature sources added substantially to the set of findings about high-level health system contexts and mechanisms (eg resourcing, expertise, funding cycles, fragmentation and goal setting).

The included data sources did not differentiate between health access outcomes specifically in response to health system features within subgroups among long-term single homeless individuals with complex needs. Therefore the 'for whom' part of the analysis was not as fully developed as it might have been with more research needed.

There was wide variety in the quality of the reviews themselves with some being transparent and following the guidelines of their particular review methodology closely (eg search string and list of databases provided, appropriate quality appraisal tools used, systematic approach, using appropriate reporting standards, etc) while others did so to varying degrees and a few not at all. A majority of reviews were based on qualitative, descriptive, and small-scale quantitative studies using a variety of methods eg RCT, cohort and case-control studies. The majority of included studies evaluated a particular aspect of healthcare access eg association between having health insurance and having a usual source of care.(81)

Comparisons with existing literature

We are aware of no other realist reviews examining healthcare accessibility for populations experiencing long-term homelessness and complex needs and of no other reviews of any approach that have examined high-level health system features that impact healthcare accessibility for the same population group. Other reviews have focused on specific healthcare interventions and most take the point of view of the patient navigating services or systems. This review differs in that we have analysed the upstream health system and service contexts that promote healthcare accessibility and have found generalisable features not specific to a particular intervention or the treatment of particular illnesses. These uncover causative relationships between how healthcare is organised and delivered at a systems and service level and its accessibility for populations experiencing homelessness and complex needs.

A realist review by Ford et al (82) of factors that impact access to primary care for socioeconomically disadvantaged older people in rural areas focused on the patient journey in accessing healthcare and not on health system features. However, there were similarities between its' findings and ours: at the service level, both studies found barriers related to ease of booking, clarity of information, system and service navigability, provider responsiveness to patient needs, patient empowerment, social status, trust, and clinician empathy and capacity.

There are similarities between our review and Aday and Andersen's 'A framework for the study of access to medical care'.(12) Our CMOCs all explain aspects of the two first boxes in their Framework: health policy (eg financing, education, manpower and organisation) and characteristics of health delivery system (eg resources, organisation).

Our CMOCs also hold some similarities with Levesque et al's 'Patient-centred access to health care: Conceptualising access at the interface of health systems and populations' (83) although it is focused on the individual patient journey. Concepts including acceptability (eg professional values, norms and culture) as well as appropriateness (eg technical and interpersonal quality, coordination and continuity) are important to CMOCs 1, 4, 5 and 6.

Meaning of the study

As in other realist works, our analysis has uncovered demi-regular patterns of outcomes resulting from mechanisms being activated in the specific contexts described in the literature. Mechanisms are not always activated in a given context. Outcomes are occurring at both a system level and individual level. The topic of access to healthcare for homeless populations is a complex one in and of itself but it sits within an area of much more complexity: the general treatment of homeless and socially excluded populations in all areas of society including health, housing and social care. The narrow focus on access to healthcare here is due to the specificity needed to conduct sound research, however, this focus is not meant to be seen as an argument for siloed thinking and service provision.

In fact, population groups on the extreme margins of society, such as populations experiencing long term homelessness, are in particular need of comprehensive, joined up strategies in their care. These populations tend to exist at the intersection of multiple disadvantages in life (eg substance use, childhood trauma, poor mental health, contact with criminal justice systems) which can amplify each other. At the same time, these people also have a high risk of falling into gaps between service and policy areas each focused on their particular goals and targets. For example, housing and health policies are often not joined up. (84)

It is well known that lacking adequate housing in and of itself causes illness to occur (2). It is likely that many of the findings in this review can be applied more broadly to all socially excluded populations and form a basis for thinking about how to make a health system fully responsive to populations experiencing a variety of deprivation or differentiation from 'the norm' and thus truly universal, informed by existing approaches such as Universal Design.(85) A non-judgemental, flexible and empathetic approach should be applied to all services for all socially excluded populations and beyond, in conjunction with a joined up approach to health and social care(62,77,85).

The first three CMOCs above (CMOC 1-3) were generated almost exclusively from grey literature sources and the other three (CMOC 4-6) were generated primarily from peer reviewed literature. The grey literature included many high-level systems topics including resourcing, funding cycles, the siloed nature of healthcare, health system goal setting and more, as well as describing patient level factors. The majority of the peer reviewed literature described patient level healthcare interactions.

In these interactions, contexts are often reflective of systematic or at least service-level planning, management, culture and leadership decisions and practices but they were not explicitly examined. There is a need for more research exploring healthcare access from a health systems perspective.

Implications for policy and future research

Based on the findings in the review, we recommend the following points for further exploration and research and future policy making in the area:

1. Healthcare services should be funded using multi-year stable funding cycles (CMOC 2)
2. Healthcare services for vulnerable populations should be the specific responsibility of a health system entity so it is not allowed to fall between different sectors or budget lines (CMOC 2 and CMOC 4)
3. Healthcare for individuals experiencing homelessness should be provided in settings that do not allow stigma to dominate the culture. Trauma-informed practice and a deep understanding of the life experiences of socially excluded populations at all levels of an organisation or system are key and these should be championed by leadership and management to create a culture that is accessible to all (CMOC 1 and CMOC 5)
4. Healthcare should be easy to navigate for patients. Pathways, procedures and communication should all be highly coordinated and designed with patients' needs in mind. One-to-one support from key workers and peer-advocates increase navigability (CMOC4)
5. Courses of treatment should be planned transparently in collaboration with the patient based on his or her full set of needs and wishes as a full person (CMOC4)
6. Healthcare should be provided in flexible settings with flexible rules to allow for meeting patients' life circumstances and needs where they are (CMOC 4 and CMOC 6)
7. Healthcare system goals should be set with flexibility and complexity in mind CMOC 1, CMOC 3 and CMOC 6)
8. Providers and staff should be recruited based on their motivation in working with the patient population and adequate training should be given to ensure that all staff and providers understand the needs of the population group (CMOC1 and CMOC 6)

These recommendations will likely benefit most patients, housed or not, and as such investing in them would pay dividends for populations beyond those experiencing homelessness. However, for homeless populations these are crucial to ensuring that an already vulnerable group does not face further social exclusion when accessing healthcare.

Conclusion

Access to healthcare for populations experiencing homelessness depends on adequately resourcing and training providers to meet the particular needs of patients in a welcoming and attentive setting without stigma and judgment. Services should be closely linked, and staff and providers should be empowered to take responsibility for providing flexible, responsive and opportunistic care in flexible settings. For patients, having a good experience and getting one's needs met sets a precedent for future appropriate healthcare access. The contexts in which this is possible arise in a respectful, empathetic culture which is created when managers and leaders value and champion it.

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Authorship

RS, CNC, SB, JF and ST developed the research project. RS, JF and CNC developed the search strategy with the help of a subject librarian. RS and JF shaped and refined formal search strategies. RS carried out screening and article selection process, applied a realist logic of analysis to the data, built CMOCs and programme theories, presented to the expert panel and drafted the article. SB screened a subset of articles and facilitated the expert panel meeting. CNC added to the refinement of CMOCs and programme theory. JF provided guidance and oversight of the realist analysis and added to the refinement of CMOCs and programme theory. CNC, SB, JF and ST provided subject matter expertise and critical revisions at multiple stages. All authors read, reviewed and approved the final manuscript.

Data sharing statement

All data relevant to the study are included in the article or uploaded as supplementary information.

Figures

Figure 1 The stages of a realist review

Figure 2 Prisma diagram

Figure 3 CMOC 1: Resourcing

Figure 4 CMOC 2: Funding stability

Figure 5 CMOC 3: Fragmentation and goals

Figure 6 CMOC 4: Care organised around the person

Figure 7 CMOC 5: Inclusive Culture and leadership

Figure 8 CMOC 6: Flexible healthcare delivery

Figure 9 Overarching programme theory

Table 1 Summary table of included studies from systematic peer-review search

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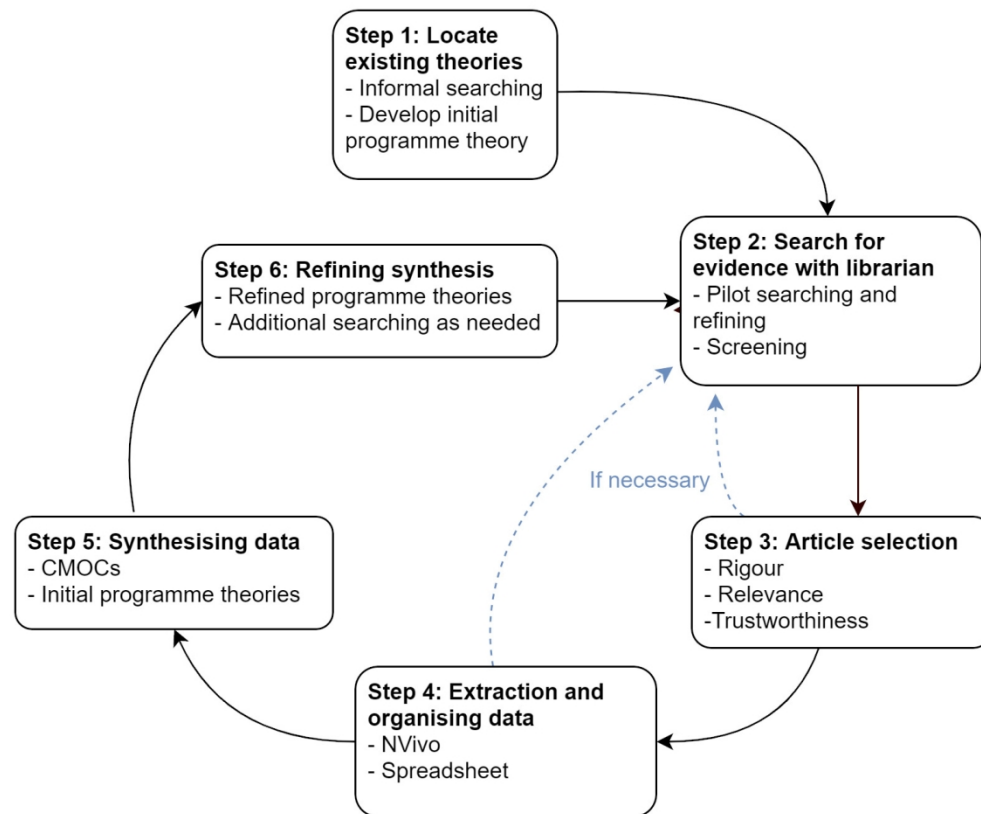
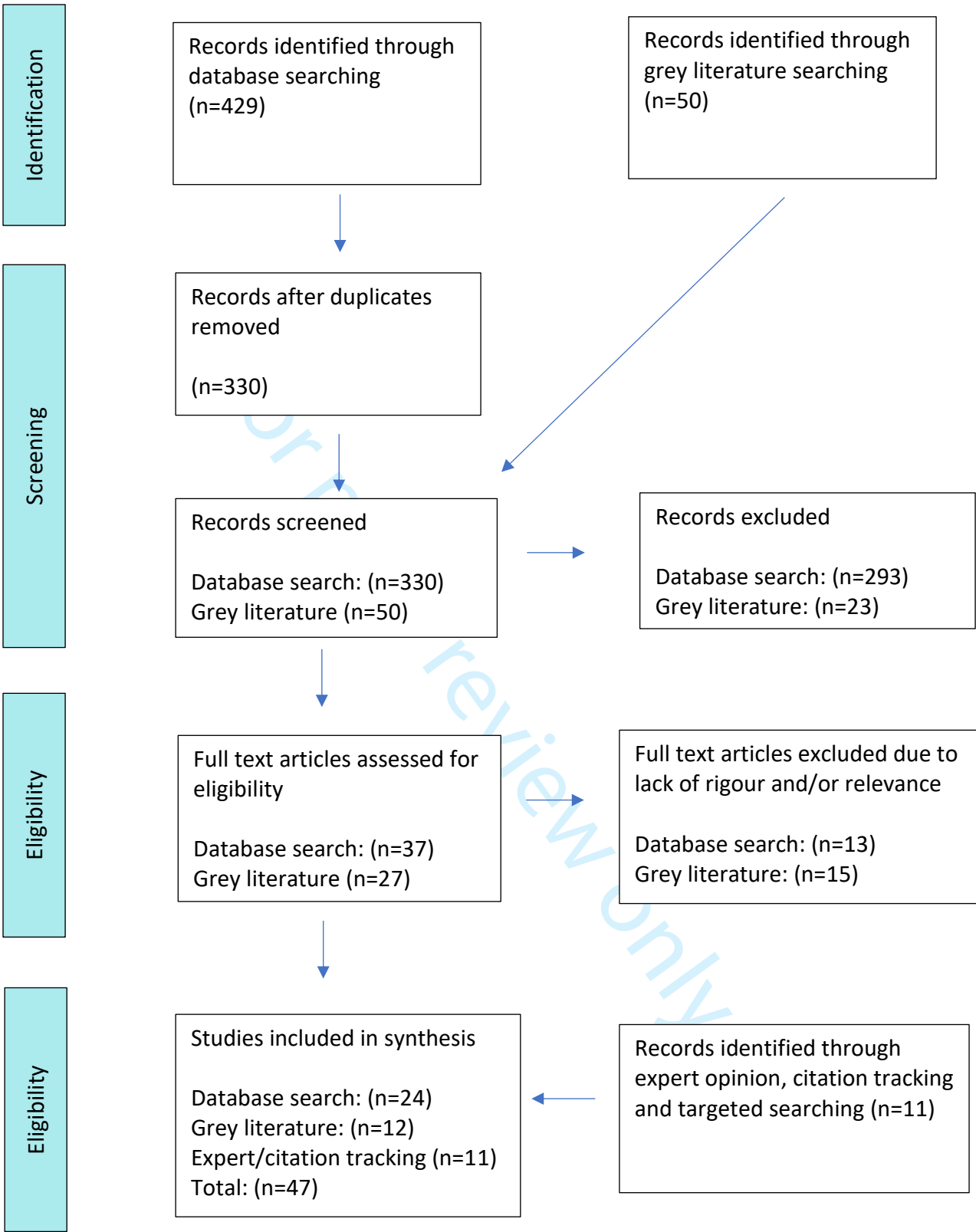


Figure 1: The stages of a realist review

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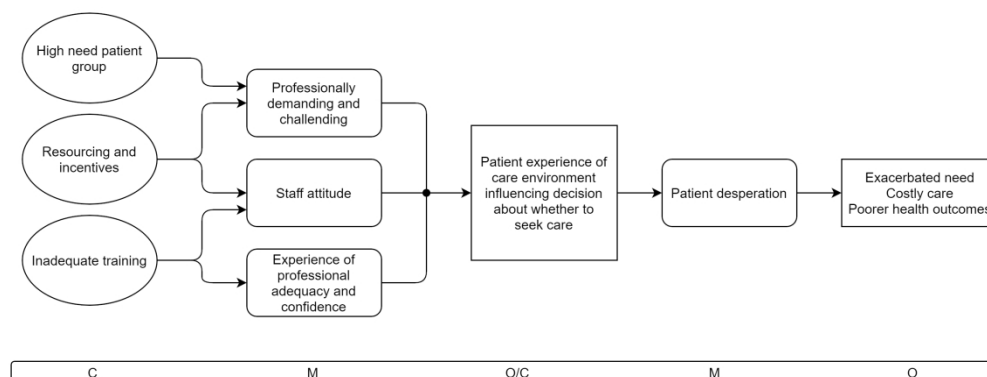


Figure 3: CMOC 1 Resourcing



Figure 4: CMOC 2 Funding Stability

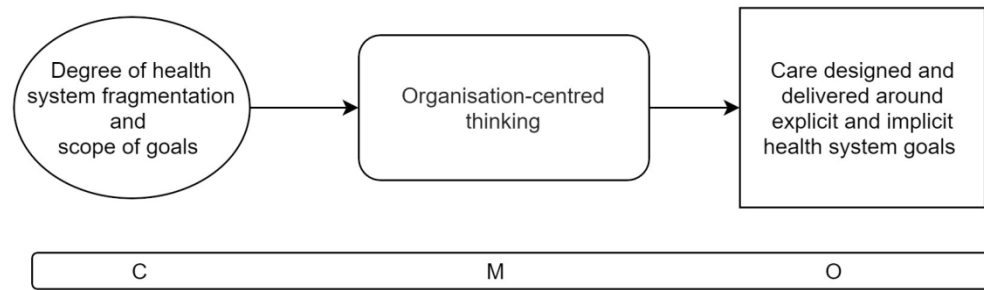


Figure 5: CMOC 3 Fragmentation and goals

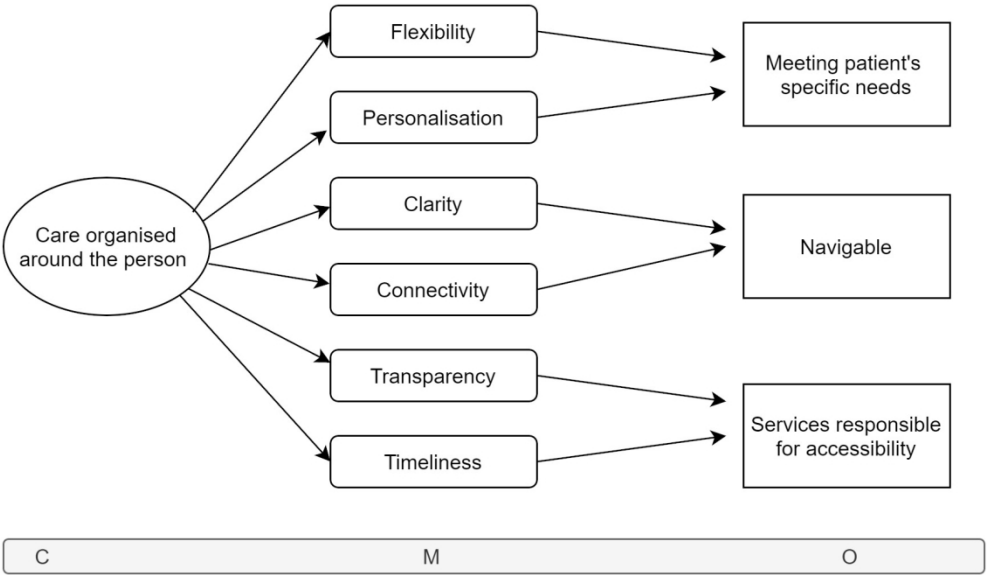


Figure 6: CMOC 4 Care organised around the person

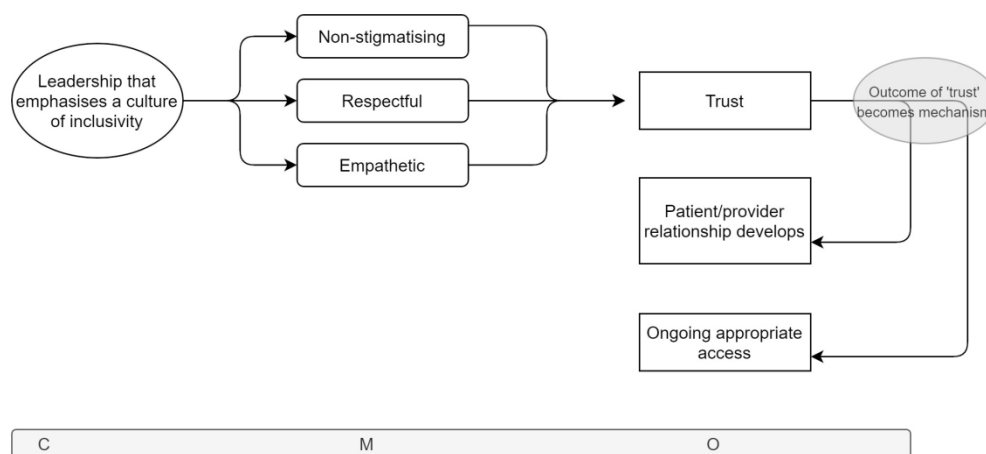


Figure 7: CMOC 5 Inclusive culture and leadership

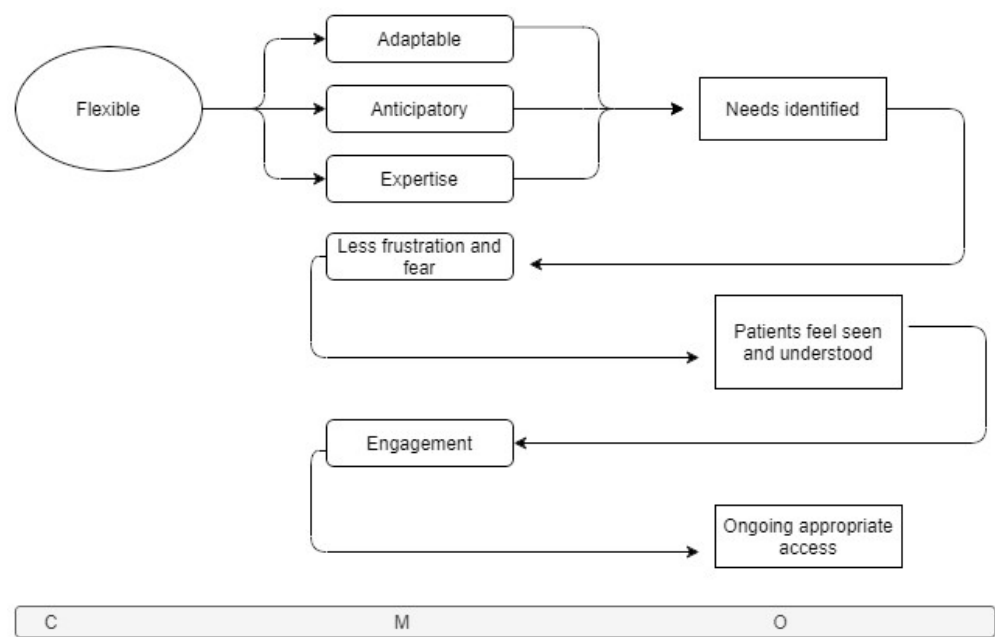


Figure 8: CMOC 6 Flexible healthcare delivery

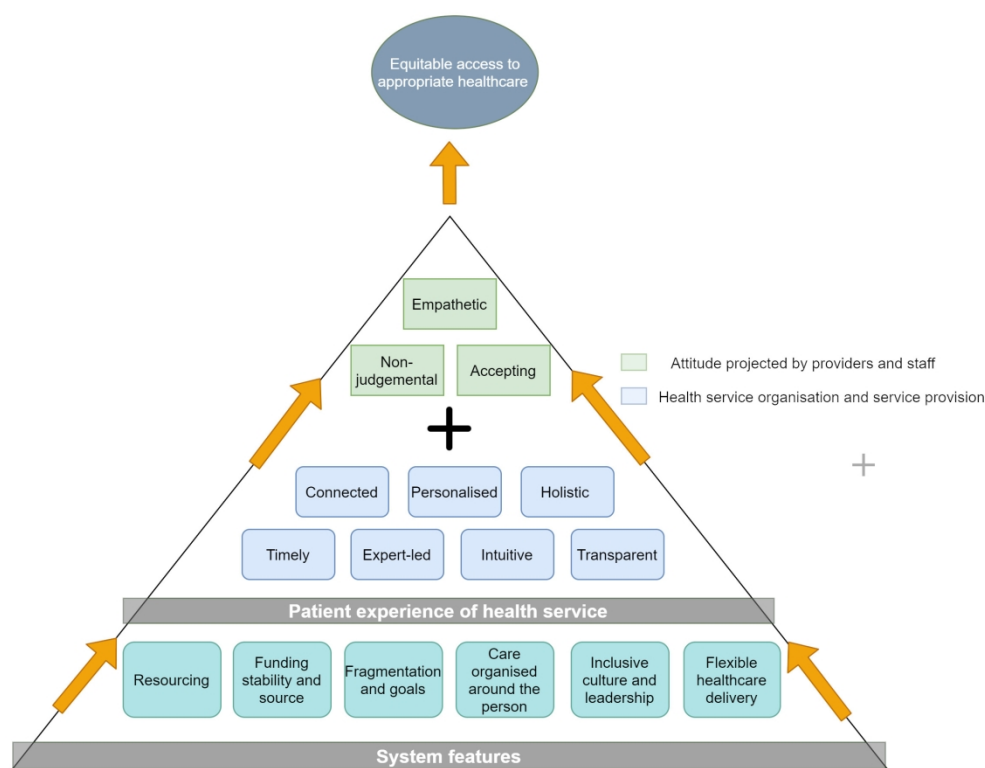


Figure 9: Overarching programme theory

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Siersbaek et al

Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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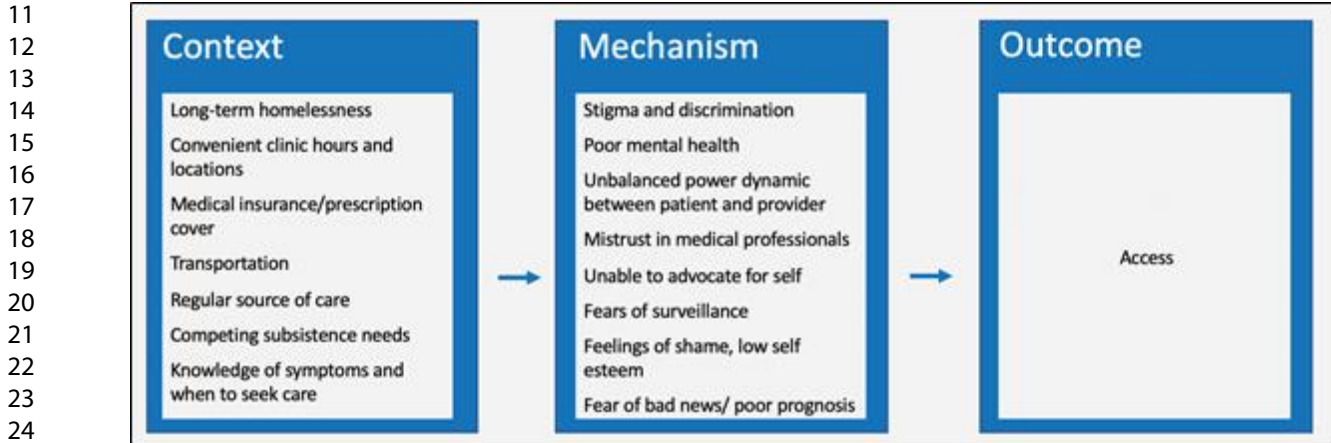
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1. Initial rough programme theory



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2. Systematic literature searches

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Number	Search details	Hits
1	exp Homeless Persons/	8,246
2	(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "indigenous people" OR "indigenous population*").ab,ti.	16,947
3	exp Health Services Accessibility/	104,062
4	("health service* barrier*" OR "health service* access*" OR "health care access*" OR access adj2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier adj2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet)).ab,ti.	22,007
5	1 OR 2	19,141
6	3 OR 4	118,956
7	5 AND 6	1507
11	limit 10 to (english language AND "review articles")	154

Embase.com (26 April 2019)

Number	Search details	Hits
1	'homelessness'/exp	10,242
2	'homeless person'/exp	1,371
3	'vagrancy'/exp	11
4	(homeless*:ab,ti OR 'homeless person':ab,ti OR 'homeless population*':ab,ti OR 'no fixed address':ab,ti OR 'no fixed abode':ab,ti OR 'emergency accommodation':ab,ti OR 'supported accommodation':ab,ti OR 'supported housing':ab,ti OR hostel*:ab,ti OR 'night shelter':ab,ti OR 'bed and breakfast':ab,ti OR 'hard to reach':ab,ti OR vagrancy:ab,ti OR vagrant*:ab,ti OR 'rough sleep*':ab,ti OR 'sleep* rough':ab,ti OR 'street people':ab,ti OR 'street person*':ab,ti OR squatter*:ab,ti OR vagabond*:ab,ti OR 'inadequate housing':ab,ti OR 'hidden homeless*':ab,ti OR 'indigenous people':ab,ti OR 'indigenous population*':ab,ti	20,523
5	'health care access'/exp	55,849
6	("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet)).ab,ti.	28,437
7	#1 OR #2 OR #3 OR #4	23,407
8	#5 OR #6	78,165
9	#7 AND #8	1,286
10	#7 AND #7 AND [review]/lim AND [English]/lim	173

CINAHL (26 April 2019)

Number	Search details	Hits
1	(MH "Homeless Persons")	4,724
2	(MH "Homelessness")	3,378
3	TI homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*"	7,879
4	AB homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond** OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*"	8,236
5	(MH "Health Services Accessibility+")	72,405
6	TI 'health service* barrier*' OR 'health service* access*' OR 'health care access*' OR access ADJ2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet) OR barrier ADJ2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet)	80,358
7	AB 'health service* barrier*' OR 'health service* access*' OR 'health care access*' OR access ADJ2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet) OR barrier ADJ2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet)	80,625
8	#1 OR #2 OR #3 OR #4	12,280
9	#5 OR #6 OR #7	81,401
10	#8 AND #9	1,537
11	#8 AND #9 (limited to English and publication type: Meta Analysis, Review, Systematic Review)	101

ASSIA (26 April 2019)

Number	Search details	Hits
1	MAINSUBJECT.EXACT("Homelessness") OR MAINSUBJECT.EXACT("Homeless elderly people") OR MAINSUBJECT.EXACT("Homeless men") OR MAINSUBJECT.EXACT("Homeless families") OR MAINSUBJECT.EXACT("Homeless women") OR MAINSUBJECT.EXACT("Homeless people") OR MAINSUBJECT.EXACT("Homeless pregnant women") OR MAINSUBJECT.EXACT("Homeless older people")	4,008
2	ab(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*")	7,083
3	ti(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*")	3,796
4	ab("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet))	10,687
5	ti("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet))	1,708
6	S1 OR S2 OR S3	7,884
7	S4 OR S5	11,386
8	S6 AND S7	335
9	S6 AND S7 (limited to English language and "literature reviews" and "reviews")	1

3. Glossary of terms

Context: environments, settings, circumstances or structures that trigger mechanisms (behaviours, emotional responses) in individuals. Anything which influences the action of a mechanism. Some contexts impede or block mechanisms.

Context-mechanism-outcome configuration (CMOC): configuration that explains the causative relationship between a mechanism which is triggered in a given context and as a result produces an outcome.

Mechanism: the pre-existing, latent power, liability or propensity to which is activated in a particular context in a person operating in that context, leading to a change in behaviour.

Outcome: impact, change or action arising when a particular mechanism is activated in a particular context

Programme theory: a combined set of theoretical explanations of how a particular process, intervention or programme is expected to work

Realist approach: the realist approach to research used in realist review and realist evaluation is a theory driven way to explain generative causation in areas of study that are highly complex and in which empirical testing is not possible

Relevance: the determination of whether a particular study, report, article etc is relevant to the research question

Rigour: the determination of whether a particular finding or piece of information in a given source was arrived upon in a way that was robust and faithful to the particular method being used. If a study was done well adhering to its method it is more likely to be rigorous however all sources of data can yield pieces of helpful information.

4 Illustrative examples of included data

CMOCs	Examples of supportive data
CMOC1: In a context where mainstream health practitioners and staff (in hospital and primary care settings) are expected to treat long term homeless populations without being provided adequate resources and incentives while also having inadequate expertise in the particular needs and life experiences of this group (C), practitioners and staff feel professionally challenged (M) with feelings of professional inadequacy (M) and a lack of confidence (M) and display an unwelcoming attitude toward patients (M). As a result, patients’ experience of the care environment is a negative one which influences them to choose to not seek care at an appropriate time (O). This outcome becomes a new context where patients wait to seek care need is emergent (M) and they feel desperate (M). The result is an exacerbated, more costly need for care (O)	<p>The other issue is resources. Nine out of ten GPs in the Crisis survey felt that GPs need extra resources in order to provide homeless people with the same levels of access to GP services as the average person. Homeless people do present with multiple and complex needs which require extra resources and sometimes specialist knowledge. GPs and practice staff are not, in general, given any specialist training in understanding the specific needs of homeless people (Crisis, 2002)</p> <p>Health professionals described experiencing “feelings of failure or lack of achievement” when working with homeless people. Treating an individual with needs that are very different to those of their usual patient group, with little training could limit the provision of quality palliative care for this population. Inexperience in caring for people who are homeless may contribute to some of the attitudes health care professionals may hold towards homeless and may also contribute to their perceptions of stress and burden. (Hudson <i>et al.</i>, 2016)</p> <p>A Queen’s Nursing Institute Homeless Health Initiative survey of homeless and non-homeless health specialists found that:</p> <ul style="list-style-type: none">• Only 36% of all specialists and 8% of nonspecialist nurses had ever received any training on homelessness and health• 71% of non-Homeless Health Specialists were not confident in their ability to care for homeless people

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<p>33</p> <p>34</p> <p>35</p> <p>36</p> <p>37</p> <p>38</p> <p>39</p> <p>40</p> <p>41</p> <p>42</p> <p>43</p> <p>44</p> <p>45</p> <p>46</p> <p>47</p> <p>48</p> <p>49</p> <p>50</p> <p>51</p> <p>52</p> <p>53</p> <p>54</p> <p>55</p> <p>56</p> <p>57</p> <p>58</p> <p>59</p> <p>60</p>	<p>CMOC2: In a context where funding comes from multiple sources and where funding cycles are short and unreliable(C), staff members employed on short term contracts experience instability (M) and a lack of a feeling of job security (M) because they are in a series of continual contract renewals. The precarious sustainability of the services they work for lead to staff being asked to do more with less but job satisfaction is low (M) because services are permanently in a state of flux making it difficult to achieve good outcomes for people who need extra time and attention. Because they work for organisations with important missions they are expected to not care as much about pay and conditions as they care about helping. The outcome is difficulties hiring and retaining highly skilled and experienced staff members.(O)</p> <p>Others felt that longer term funding contracts would offer staff more security of employment. The underlying fact is that we are government funded for cycle periods where funding contracts and notifications of outcomes continues to be delayed or left to the last minute where we may lose staffs due to uncertainty in ongoing funding or new contracts. (Medium non-metropolitan SHS provider) Job security - not having to tie employment to funding contracts. (Large nonmetropolitan SHS provider) (Cortis and Blaxland, 2017)</p> <p>While funding of homeless service through Department of Housing Section 10 funding was largely frozen during the period of austerity budgets, funding from the Department of Health/HSE experienced massive cuts, in some cases of over 40%. Severe reductions in HSE funding during the course of the recession placed a significant strain on the range of social care, mental health and physical health services which are essential in supporting people who are experiencing homelessness to exit to independent living. These cuts happened in parallel with a massive increase in the numbers of people who were homeless and an increase in the support needs of many groups. To a large extent, these cuts were absorbed through wage cuts and wage freezes for the staff in the voluntary sector. While the public sector is going through a process of pay restoration, staff in voluntary sector services, particularly those funded by the HSE, have seen little pay restoration and, frequently, no increments for several years. This is leading to recruitment problems in front-line services, just when need is greatest. (Focus Ireland, 2019)</p>

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Non-profit staff is seen as motivated in distinctive ways when compared to workers in other sectors through greater commitment, stronger non-monetary orientation and greater degrees of altruism to serve others. **The strong mission attachment among staff has led conventional wisdom to assume that they are seen as willing to work for lower salaries and fewer benefits** because they associate so strongly with the organisational goals. **However, in a time of recession, non-profit organisations are faced with the dilemma of cutting back on terms and conditions, while at the same time relying more than ever on dedicated staff to deal with increasing demand.** **“A lot of voluntary employers seem to think that because the social purpose of the organisation is so laudable, that people ought not to fuss about their salaries, their working conditions and other issues”.** (Mahon, 2016)

The current economic climate in the country was something which was very prevalent in the minds of those interviewed, **in terms of increasing needs of clients, further demands on services and negative impacts on employment terms and conditions. Staff interviewed felt in some cases that there was an expectation that staff could do more with less, and it was assumed that pay and conditions were not as important to them.** “Sometimes it’s seen as, ‘well you’ve a caring personality so just get on with it’. Well it takes a bit more than a caring personality.” (Interview D) (Mahon, 2016)

Multiple budgets: People facing multiple needs require help from a wide range of services, each funded from different budgets, held at different levels. Many agencies and commissioners view their role as being for a particular group of individuals (usually with one severe problem rather than multiple problems) and **allocate their resources accordingly.**(Page and Hilbery, 2011)

All the case studies reported difficulties in recruiting staff, particularly nurses, who were willing to work on the streets with people sleeping rough. Depressed wages and short-term contracts related to the short-term nature of funding through the Rough Sleeping Initiative made it hard to attract workers with the right level and type of expertise to make a real difference. This impact was felt across sectors – the NHS, the voluntary, community and social enterprise (VCSE) sector and local authorities. (The King’s Fund, 2020)

We also heard concerns about the sustainability of local funding, and the instability caused by continual contract renewal, as well as clashing commissioning cycles of the clinical commissioning group and local authorities. **Others reflected that the lack of stability from commissioning created particular challenges: when services were ‘forever in a state of flux’ it was hard to achieve good outcomes for people who need the space and time to recover from being homeless.** (The King’s Fund, 2020)

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CMOC3: In a context where various parts of a health system operate in silos with narrowly defined goals (C), staff engage in organisation-centred thinking (M) and prioritise the goals of the health system over those of the patient. As a result, healthcare is organised around the needs of providers and the system not the person (O).

There is a limited evidence base on what works for these clients and, particularly in small specialist services, a lack of capacity and/or capability to evaluate effectiveness and impact

- Services often lack the flexibility to respond to complex needs and chaotic lifestyles
- **There are few incentives to promote partnership working around clients with complex needs**
- **It is easy for clients to fall between the gaps of different services leading to expensive unplanned care and clients 'revolving' through the system**
- **There are gaps in and barriers to provision e.g. access to mental health services for those with dual diagnosis**
- **There is an artificial divide between clinical and social models of care**(Cabinet Office Social Exclusion Task Force, 2010)

Many of the practitioners noted the lack of joined up working between the numerous services that are involved in this client's care as a result the care is often fragmented, reactive and can be disordered. For example the voluntary and non-statutory services, that support people who are homeless, have different agendas to the public health services in the way they care for the clients.(Davis and Lovegrove, 2016)

... if the services are being funded by criminal justice to do say DRRs [Drug Rehabilitation Requirements] things like that, **they've got targets to meet, so the actual individual has got no say at all because they're there on the basis of "you're here because you need to be here. We're here to get our wages because we've been told by the government, courts, prisons, whatever to do what we need to do and actually your needs come second to what we're setting out to do..."** (Making Every Adult Matter Coalition, 2015)

Commissioners are focused on outcomes which are narrow and specific to their sector. The approach of government departments filters down to local commissioners. This leads to them and the services they commission replicating the 'silo culture', **focusing on a narrow range of outcomes rather than on the wider set of issues that contribute to multiple needs and exclusions.** Joint commissioning has grown over the past decade but needs to go further, with a specific focus on this group. (Page and Hilbery, 2011)

People with multiple needs want to be placed at the centre of their own support. However, people felt that their needs and aspirations were not always seen as a priority, and that services' ability to provide support can be limited by the way they are designed and commissioned.

People also felt that targets or conditions attached to funding meant that practitioners weren't able to focus on the individual and decide what was best for them.(Making Every Adult Matter Coalition, 2015)

The highly compartmentalised nature of health care systems can create a barrier to comprehensive care for PWID whose needs are complex and may span multiple domains, such as drug dependency treatment, acute health care (wounds and infections), psychiatry and hepatology. Hospital-based HCV treatment is often not ideally suited to PWID due to: geographic distance; referral-associated delays; inflexible appointment policies; lengthy waiting times; limited infrastructure and psychosocial supports; abstinence requirements; and prejudicial attitudes of some staff to PWID. **Barriers to HCV treatment access for PWID include a lack**

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	<p>of continued engagement in medical care at the same site, with some PWID experiencing a lack of consistency in the management and monitoring of their HCV, and an accompanying confusion about HCV symptoms, test results and status. Navigating health care systems and unfamiliar hospital settings can be daunting for PWID, particularly for those who may have had previous negative experiences with providers. (Harris and Rhodes, 2013)</p> <p>This feeling was echoed by others who noted that GPs often wanted very brief consultations, and even then they were not listening to the health problems being explained to them. This was described as: ‘A conveyer belt; just in one door and out the other ... get your prescription and of out the door with you.’ Homeless participant 2 (O’Donnell <i>et al.</i>, 2016)</p>
<p>CMOC4: In a context where care is organised around the person, mechanisms of flexibility and personalisation are triggered allowing for the patient’s specific needs to be met. Further mechanisms of service connectivity and making pathways understandable are triggered leading to the outcome of enhanced health system navigability. Also mechanisms of transparency and timeliness in the delivery of services enable the outcome of placing the responsibility for access on services themselves providing services in an opportunistic way using shared and transparent decision making to fit with the patient’s particular wishes and needs at the time they arise.</p>	<p>Health care practitioners need to provide anticipatory guidance to reduce harm, prescribe medications at no or low cost, choose simple treatment regimens, and ease follow-up by offering walk-in appointments and care during evening hours. (Elliott <i>et al.</i>, 2013)</p> <p>A Pathway team is a simple intervention designed to break these cycles of failure and exclusion. A Pathway team is a specialist medically led multidisciplinary homeless team based in the hospital. It works with and alongside a patient’s medical team to enhance the quality of care offered during their time in hospital. Teams include housing specialists working alongside clinicians so that before the patient leaves hospital a plan has been developed for their onward care. Teams are led by specialist GP’s who bring their knowledge and skills of caring for homeless people in the community, as well as their expertise in prescription of methadone, personality disorder, and chronic disease management. Nurses manage team caseloads and bring vital clinical experience in homelessness, addictions and mental health, as well as practical knowledge of how to get things done in a hospital. Housing specialists bring their expertise to the bedside and help build links with voluntary sector services in the community. Some Pathway teams also include Care Navigators, paid staff who have personal experience of homelessness who focus on relationship building. Larger teams also include occupational therapists, social workers and mental health practitioners. (FEANTSA, 2019)</p> <p>Patients need a holistic approach, as they are not experiencing their needs in isolation. Mental health, substance misuse and general health issues occur simultaneously with social and environmental needs (Gill <i>et al.</i>, 2013b)</p> <p>Dedicated hospital pathway: it has been proven that a ‘transversal’ pathway, cutting across medical specialties has both a positive impact on the user experience and on the cost effectiveness of the care provided. (Gill <i>et al.</i>, 2013b)</p> <p>In three studies in which arrangements were made for same-day assessment, or participants were escorted, supported or incentivised to attend, uptake was 70% to 92%.The other three studies reported following the usual referral pathways, and uptake of the diagnostic pathway was lower, at 44–57%. (Hamilton, Tolfree and Mytton, 2018)</p>

Suggestions for overcoming the complex needs and irregular lifestyles of homeless people in the delivery of palliative care included **taking a pragmatic, person-centered approach, setting goals that are realistic in the context of homelessness and removing discrimination and stigma from health care interactions.** (Hudson *et al.*, 2016)

One suggestion for achieving this was the use of peer mentors, or experts by experience who could accompany, mentor or advocate for homeless people as they try to access health care services. Previous work from Groundswell in the UK has found that the use of peer mentors can be effective in increasing the confidence and motivation of homeless people to access health care and in decreasing reliance on unplanned secondary care services. This may well be a model that could be extended for homeless people with advanced ill health. (Hudson *et al.*, 2016)

Multicomponent interventions with coordinated care are most effective and should include both health and nonhealth services. Partnership working and service design around the whole person is necessary to achieve the best results. (Luchenski *et al.*, 2018)

The following were key principles of services that were valued by participants: **provide ample time and patience to really listen; strive to develop trust and acceptance; provide supportive, unbiased, open, honest, and transparent services in inclusive spaces and places; encourage clients to accept personal responsibility for health; allow clients to take ownership, have choices, and participate in decisions; and above all, promote accessibility, fairness, and equality.**(Luchenski *et al.*, 2018)

Outreach models made it easier for young people to contact services, along with colocated services, and being able to drop in. Waiting times, opening hours (a lack of afterhours services), and eligibility for the service (including age and other intake criteria) were also noted as access barriers. Service availability for priority health conditions, perceived or actual, also affected access. (Robards *et al.*, 2018)

Navigation can be improved by reducing duplication, simplifying referral and appointment systems, strengthening services partnerships and linkages, and improving clarity about service roles and colocated services. Navigation support is also worthy of further exploration. (Robards *et al.*, 2018)

People who sleep rough are often characterised as 'difficult to reach'. **However, staff working in this field were quick to challenge this label. They argued instead that local authorities and the NHS had a responsibility to design services that people who sleep rough could easily access.** They wanted to create opportunities to find and connect with the population who sleep rough.(The King's Fund, 2020)

Leaders should be committed to collaboration – and to taking responsibility. Multi-agency working to tackle rough sleeping requires a commitment to collaboration across the system. But someone needs to take the lead, someone has to drive the strategy and someone has to have the authority to call people to account for delivering their individual responsibilities for improving outcomes for people sleeping rough.

<p>1 2 3 4 5 6 7 8 9</p>	<p>Particular attention needs to be paid to where responsibilities intersect or stop.(The King's Fund, 2020)</p> <p>Allow for patients to have "unscheduled" space to share their life stories and to acknowledge those stories A pragmatic approach by staff, facilitating flexible care solutions, such as the choice where to die and accepting that planned activities may not happen or need to be cancelled (Klop <i>et al.</i>, 2018)</p>
<p>10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60</p> <p>CMOC 5: In a context where leadership emphasises a culture of inclusivity and explicitly commits to and promotes values of inclusivity and whole organisation policies and processes, services are provided in non-stigmatising, respectful, empathetic ways which builds trust between practitioners and patients. As a patient/provider relationship develops a positive feedback loop is created resulting in deepening trust which compounds and facilitates ongoing engagement which leads ultimately to ongoing appropriate access to health services at the right time and right place.</p>	<p>There is a wide range of health services nationally, but a far smaller pool of experienced nurses focused on holistic and integrated healthcare for people experiencing homelessness. This type of healthcare is time and labour intensive. It is vital that commissioners understand the complexities around engaging and building relationships and trust with people who are homeless as one of the crucial elements of delivering healthcare. (The Queen's Nursing Institute, 2018)</p> <p>Previous experience of services and positive perceptions of counselling affected health care seeking behaviour (French <i>et al.</i>, 2003) and the availability of a case manager and/or youth worker (Aviles & Helfrich, 2004). (Dawson and Jackson, 2013)</p> <p>In facilitating access to palliative care, building or rebuilding trust between homeless people and health care professionals was considered vital by homeless people and those supporting them. It was recognised though that this would not be easy:</p> <p style="padding-left: 40px;">"You have to earn it. You have to show that you want to do something for them [homeless people]. You have to be respectful and treat people with the same kind of treatment that you would want. It's often word of mouth. One client will say, "Listen, you can trust her" - Harm reduction outreach worker</p> <p>(Hudson <i>et al.</i>, 2016)</p> <p>Trustful and respectful relationships were also mentioned as a recommendation for delivering care; as well as attention for different domain of concerns of homeless people compared to healthcare providers, flexible programs and availability and support after death (Klop <i>et al.</i>, 2018)</p> <p>Efforts to enhance access need to account for the symbolic and social boundaries that marginalised citizens' experience, in addition to more obvious physical and institutional boundaries to accessing health services. (Klop <i>et al.</i>, 2018)</p> <p>Findings raised the importance of talking to somebody else who would listen, and be understanding. Trust and confidentiality were often considered paramount. Less explicit though perhaps equally important was that the person who was listening respected the boundaries set by those disclosing. (Lamb <i>et al.</i>, 2012)</p> <p>It is the responsibility of the health service provider to demonstrate culturally responsive leadership and build governance structures and environments that ensure health professionals are encouraged, expected and able to respond to the needs of Aboriginal and Torres Strait Islander people effectively. The processes and supportive</p>

	<p>structures around health service delivery are equally as important as actual health outcome measures when determining the overall effectiveness of health service delivery. (McMillan, 2013)</p> <p>Leaders should work to gain political buy-in and support. The problem of rough sleeping evokes a range of views about how individuals should be treated. As a group, they may not be afforded the same sympathies as other groups of patients who also have poor health outcomes. Local leaders can play a crucial role in developing a shared narrative – and a common purpose. This framing can set powerful expectations about how the local area will respond to meet the needs of people experiencing rough sleeping. (The King’s Fund, 2020)</p> <p>The King’s Fund has published extensively on what makes for good system leadership, with distributed responsibilities and a culture of compassion and inclusion being key. Much of this work has focused on leadership across a health and care system and the importance of having a shared narrative, relationships built on trust, deep engagement of staff and communities and strong partnership working across organisational and professional boundaries.(The King’s Fund, 2020)</p>
<p>CMOC 6: In a context where healthcare services are delivered with a high degree flexibility in terms of appointment length, availability of walk-in appointments and self-referral, opportunistic add-on services such as vaccinations and screenings etc (C), practitioners and staff with expertise and experience (M) with the population group are able to anticipate (M) the common interventions that may be needed, to adapt (M) to the particular needs of the patient in front of them, and to use their expertise provide the treatment that is most needed in the current situation. As a result, patients’ needs are identified (O) this becomes a new context in which patients experience less frustration and fear (M) because they do not have to fit into a mould of a health service which is difficult to navigate. As a further outcome, patients feel seen and understood (O) which again becomes a new context activating engagement from both ultimately leading to ongoing appropriate access to services over a course of treatment or on an ongoing basis as needed. A cyclical nature of an ongoing and trusting relationship is established and reinforced over multiple interactions.</p>	<p>Health care practitioners need to provide anticipatory guidance to reduce harm, prescribe medications at no or low cost, choose simple treatment regimens, and ease follow-up by offering walk-in appointments and care during evening hours. Health care workers should administer applicable vaccines at any available opportunity. Ask all youth about their immunization status. Advise how to access ‘catch-up’ or new vaccines. Better yet, be prepared to provide them ‘on-the-spot’ in any office setting. Keep treatment regimens as simple and straightforward as possible. Make follow-up procedures easier by having some walk-in appointments and evening hours. (Elliott, 2013)</p> <p>Given the high rates of mental health diagnosis – including addictions – in SIY, at least an initial mental health screening should be integrated into various health care settings, focusing on suicide risk, self-harm and whether an individual is a risk to others. (Elliott <i>et al.</i>, 2013)</p> <p>Community based staff may also be in a position to advocate for homeless people in health care situations, due to their longer term relationship and thereby understanding of the individual’s needs; “Three or four of these clients since I’ve started working here have been recognized by the workers at [harm reduction program]. They know to call us and that we’ll follow through with helping with appointments and referrals to the [EoLC]” – Health care professional. (Hudson <i>et al.</i>, 2016)</p> <p>Findings raised the importance of talking to somebody else who would listen, and be understanding. Trust and confidentiality were often considered paramount. Less explicit though perhaps equally important was that the person who was listening respected the boundaries set by those disclosing. This was linked to the perception that health professionals were unable or unwilling to engage with the patients’ understanding of who they are and how they relate to the worlds they inhabit. This emerged as fundamental to people’s understanding of aetiology, the way they framed their problems, their decisions to seek help and the behaviours they adopted in living with chronic mental health issues. (Lamb <i>et al.</i>, 2012)</p>

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A free clinic in Los Angeles was identified by youth as a model for best practice. **Here youth appreciated staff that did not keep them waiting, listened and discussed health care options with them.** Homeless youth were not ‘hassled’ when they lost their patient identification cards and were reissued cards without a lecture. In addition their preference for healthcare delivery was accommodated at sites already known to and frequented by homeless youth (such as drop-in shelters). (Lamb *et al.*, 2012)

The ability to develop an ongoing personal connection involved rapport with service providers, continuity of therapeutic relationships, and a usual source of care. (Robards *et al.*, 2018)

Other participants mentioned having transport to clinics, and attending services that offered a comprehensive approach to healthcare for their needs. One example mentioned a location where medical and harm reduction services were co-located:

‘It’s easy to get to because they [key workers] come and collect you, and bring you to A, and get you back here. Because that’s a big part of stopping you from getting there as well as the, is trying to get there so you know what I mean. It’s easier to be picked up and brought ... so you have your [addiction] counselling or whatever, the doctor there and your one to ones [needle exchange] all in the one.’ Drug using participant 2

The roles of peer advocates and key workers serve as important facilitators to reengagement with the primary healthcare system. It is not surprising then that the homeless group, drug users, sex workers and Traveller participants all mentioned these types of support as priorities. (O’Donnell *et al.*, 2016)

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Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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Abstract

Objective

The objective of this study was to identify and understand the health system contexts and mechanisms that allow for homeless populations to access appropriate healthcare when needed.

Design

A realist review.

Data sources

Ovid MEDLINE, embase.com, CINAHL, ASSIA and grey literature until April 2019.

Eligibility criteria for selecting studies

The purpose of the review was to identify health system patterns which enable access to healthcare for people who experience homelessness. Peer reviewed articles were identified through a systematic search, grey literature searching, citation tracking and expert recommendations. Studies meeting the inclusion criteria were assessed for rigour and relevance and coded to identify data relating to contexts, mechanisms and/or outcomes.

Analysis

Inductive and deductive coding was used to generate Context-Mechanism-Outcome configurations which were refined and then used to build several iterations of the overarching programme theory.

Results

Systematic searching identified 330 review articles, of which 24 were included. An additional 11 grey literature and primary sources were identified through citation tracking and expert recommendation. Additional purposive searching of grey literature yielded 50 records of which 12 were included for a total of 47 included sources. The analysis found that healthcare access for populations experiencing homelessness is improved when services are coordinated and delivered in a way that is organised around the person with a high degree of flexibility and a culture that rejects stigma generating trusting relationships between patients and staff/practitioners. Health systems should provide long-term, dependable funding for services to ensure sustainability and staff retention.

Conclusions

With homelessness on the rise internationally health care systems should focus on high level factors such as funding stability, building inclusive cultures and setting goals which encourage and support staff to provide flexible, timely and connected services to improve access.

Article summary

Strengths and limitations

- This is the first realist review of access to healthcare for homeless populations
- The review uncovered modifiable contexts and provides important lessons for policy makers working in this area
- The search strategy was focused on review articles to identify high-level themes meaning we may have missed relevant sources as well as important information about contextual factors

and/or the nature of causative mechanisms in the included literature under review. However, iterative searching was done and an expert panel was engaged in the analysis to offset these potential weaknesses.

Background

Homelessness is an extreme expression of social exclusion, experienced by people lacking a stable and secure place to live. According to the European Typology of Homelessness and Housing Exclusion (ETHOS) homelessness occurs in four ways: rooflessness (sleeping rough, without any shelter); houselessness (having somewhere to sleep but in a temporary shelter or institution); living in insecure housing (eg insecure tenancies, threat of eviction, violence); living in inadequate housing (overcrowding, unfit housing, caravans on illegal campsites).(1) There are various subgroups within the homeless population, including families and single adults. Some single adults have children but often their children do not live with them.(2)

Populations experiencing homelessness along the full spectrum set out above face both increased difficulty accessing healthcare and poorer outcomes than housed populations, with chronically homeless individuals having worse clinical outcomes than those experiencing intermittent homelessness or as a one-off crisis.(3–5) Populations experiencing homelessness access primary care less than housed populations and utilise costly unscheduled acute healthcare at a higher rate than their housed peers.(5–7)

Accessing healthcare is complex because it happens along a continuum of need, time and access points, and is delivered in open systems, dependent on many interacting variables on both the supply side (availability, hours, location, staffing, resources, price, etc) and on the demand side (knowledge of health need, availability of the needed time and resources, distance to service location, psychological factors, disposable income, etc). The settings and constructs in which these variables interact are themselves complex (eg hierarchical, goal-driven cultures in healthcare). As a result, inputs into a health system act in non-linear ways and at their intersection(s), a variety of intended and unintended outcomes (patients accessing the right care, or inadequate care, or not accessing care at all, accessing part of a full course of treatment; patients experiencing stigma or fear or other indirect outcomes; practitioners experiencing stress or professional insecurities, etc) emerge as more than simply the sum of their parts.(8–12)

In this review we are primarily interested in understanding the health system factors that impact access to healthcare. We conceptualise health system factors and access using the World Health Organisation (WHO) building blocks framework (13) including service delivery, health workforce, and leadership/governance, and Aday and Andersen's Framework for the Study of Access to Medical Care (12) with health system factors organised under the categories of 'health policy' and 'characteristics of health delivery system'.

Supply side factors describe the full set of inputs that go into a health system designed to meet the needs of full populations, as much as possible. Meeting the needs of the majority may not adequately meet the needs of groups experiencing social exclusion. In this study we explore how, why, in what circumstances and to what extent these inputs impact healthcare accessibility for the population of interest: single adults experiencing long term homelessness and complex needs.

Such homeless single adults with complex needs may experience any of the types of homelessness outlined according to ETHOS above. We use the term 'populations experiencing homelessness' to

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3 refer to this group in this article. The lack of housing in and of itself is not the only driver of poor
4 access to healthcare and poor health outcomes in this population. Homelessness is a marker for and
5 is associated with 'tri-morbidity' - the combination of physical ill-health, mental ill-health, and
6 substance misuse.(14) In addition to lacking stable housing, populations experiencing homelessness
7 often face a host of health problems and addiction behaviours associated with complex life
8 circumstances and events including early childhood trauma, having been in care, relationship
9 breakdowns, poverty, lack of employment and more.(2,15) While these are common experiences, it
10 is important to stress that they happen to varying degrees and sometimes not at all.(15)

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13 The majority of research exploring access to healthcare for homeless populations has focused on
14 individual level factors and particularly on why, whether and how individuals experiencing
15 homelessness do or do not access healthcare (3,16–24). A focus on individual level factors is
16 illuminating but without understanding and balancing this with health system factors there is a risk
17 that responsibility for accessing services is inappropriately placed with the individual (25,26). This
18 review synthesises health system factors that determine healthcare accessibility in order to explore
19 how whole systems can make appropriate healthcare services accessible to populations experiencing
20 homelessness and complex needs.

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23 In this study, we used the WHO's definition of a 'health system': '(i) all the activities whose primary
24 purpose is to promote, restore and/or maintain health; (ii) the people, institutions and resources,
25 arranged together in accordance with established policies, to improve the health of the population
26 they serve, while responding to people's legitimate expectations and protecting them against the
27 cost of ill-health through a variety of activities whose primary intent is to improve health'.(27)

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30 For this study we used realist review in the school of Pawson and Tilley (28,29) because it is a
31 methods-neutral approach designed for examining complex interventions or topics by seeking to
32 identify unseen mechanisms which produce a given outcome as well as the contexts in which they
33 are triggered. If activated, mechanisms produce intended and unintended outcomes. Analysis takes
34 place by explaining the causal relationship between contexts, mechanisms and outcomes in the
35 construction of Context-Mechanism-Outcome configurations (CMOCs) (see glossary of terms in
36 supplementary file). We chose to focus on review articles to enable a broader health system lens
37 since an initial scope of the literature showed a substantial body of published literature which would
38 have been unmanageable. Subsequent rounds of searching were undertaken to ensure key literature
39 was not missed.

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42 A review of health system factors which improve access to health care for populations experiencing
43 homelessness is needed because an individual level analysis does not fully explain systemic causes of
44 inadequate access to essential health services. This review sought to answer the following question:

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 - How, why, for whom, in what circumstances and to what extent can healthcare systems
49 improve access to healthcare for populations experiencing long-term homelessness?

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Methods

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55 Realist research is a theory-driven approach which seeks to understand causal mechanisms in
56 complex areas of study by asking how, why, for whom, in what circumstances and to what extent
57 something works (or does not work). A realist review approach was chosen because access to
58 healthcare is an open-ended, complex area of study with many entry and exit points for service
59 users and one where factors interact with each other creating outcomes (eg a homeless patient
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leaving the emergency department (ED) without being seen) that are more than the sum of inputs (eg ED is nominally accessible because it is always physically open but the quality of access is impacted by many potential factor eg a homeless patient's experiences of stigma). We chose to conduct the study as a review of reviews and grey literature as a means of efficiency because we were seeking to understand high-level health system features rather than the detail of individual interventions, and because pilot searching suggested that the body of primary studies analysing healthcare access for populations experiencing homelessness was too large for the capacity of the team. Using a realist review in this study contributes to the current knowledge base by uncovering causal mechanisms that are at play at the health systems level but which are not measurable and may have been missed or not fully explained in other studies.

The review followed an internal team study protocol based on Pawson's five iterative stages: 1. locating existing theories, 2. searching for evidence, 3. selecting articles, 4. extracting and organising data and 5. synthesising the evidence and drawing conclusions. (28) The phases of the review are illustrated below in fig 1.

[Insert Figure 1]

Initial programme theory

A rough initial programme theory (IPT) (see supplementary file) was developed based on informal reading and discussions with content experts in the area of homeless health. It listed potentially important contexts (eg long-term homelessness, regular source of care, competing subsistence needs, knowledge of symptoms and when to seek care) and mechanisms (eg stigma and discrimination, power dynamic between provider and patient, mistrust, fear, feelings of shame/low self-esteem) affecting the outcome of healthcare access for populations experiencing homelessness. The IPT reflected our limited knowledge specifically regarding high-level health systems features that impact healthcare access for populations experiencing homelessness at the outset of the project. It was way to get into the topic and formed the starting point for shared team knowledge but it did not turn out to be very useful in directing the further steps in the research including searching and coding.

Searching

Iterative searching took place in three rounds. First a systematic search of relevant published peer-reviewed review articles of any method took place. We did not use the IPT in guiding this search as it did not point us in the direction of high-level health system features' impact on healthcare access for homeless populations. Rather, pilot searching suggested that including a number of search terms from the IPT yielded many unrelated articles. Instead, a subject librarian helped design the search strategy focusing on two broad thematic clusters: homelessness and healthcare access. Further pilot searching was undertaken and final search terms were agreed. A formal search of four electronic databases (Ovid MEDLINE, embase.com, CINAHL, ASSIA) was undertaken in April 2019. Results from each search were exported to Endnote X9 and deduplicated automatically and manually. Full search terms can be found in supplementary file.

Additional searching was later undertaken in two rounds. First, citation tracking was used to locate important primary studies included in several of the reviews. And at this stage, further peer-reviewed and grey literature sources were included as recommended by the expert panel. Second, a search was conducted to identify additional relevant grey literature sources via the internet and websites of organisations working on homeless health. These sources were selected to shed light on

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CMOCs that were not fully developed using the data resulting from the systematic search of the peer-reviewed literature and to build additional CMOCs to more fully answer the research question.

Selection and appraisal of documents

Studies were included based on their relevance to the review question, ie if they provided information about access to healthcare for homeless populations and would contribute to the development and refinement of programme theory. Only studies in English were included. RS screened all titles and abstracts and SB independently screened a random 10% sample. During the screening phase an initial evaluation of rigour and relevance (see glossary in supplementary file for definitions) was done and as was the case at later stages when additional literature was collected. See full search in fig 2.

Data extraction and analysis

After the screening of the peer-reviewed literature was completed, a summary table was created listing key features of each study (table 1).

The first round of coding took place in NVivo 12 of the identified peer-reviewed articles from the systematic search starting with the articles deemed most useful regarding rigour, relevance and trustworthiness (eg articles that had rich data and were well done), as they were expected to best inform the development of CMOCs and programme theory. Coding was first done inductively under thematic headings of factors that promote and impede healthcare access as described in the literature. Codes were then organised into groups depending on whether they were related to the individual seeking care, the healthcare practitioner and/or programme providing care or the health service/ health system in which that healthcare is organised. Labels of context, mechanism and outcome were also assigned when possible and at times not assigned if a code did not have a clear placement in a potential configuration. The rest of the peer-reviewed articles were coded deductively using the codes already created with more codes inductively added as needed.

Using a realist logic of analysis, CMOCs were then created from data in the review articles included after the first round of searching, drawing from several sources to construct each CMOC. The purpose of the analysis was to identify general patterns of outcomes which can be expected to occur when mechanisms are activated in the right context, with some regularity (in realist parlance called 'demi-regularities'. The crafting of CMOCs took place by sorting codes from NVivo according to whether they mainly belonged to contextual factors, represented an outcome or whether they were mechanistic in nature. We then, through constant consultation of with the literature, linked contexts, mechanisms and outcomes that fit together to explain underlying causation. We wrote a list of resulting CMOCs that all demonstrated a causative relationship affecting healthcare access for populations experiencing homelessness, as described in the data. This list of CMOCs was written in a Word document with its supporting data excerpts listed below. Iterative cycles of analysis then took place to refine, challenge and change the CMOCs with the data. Through the analysis process, some CMOCs were eliminated and some were combined if they were similar to others.

The CMOCs generated from the data extracted from the peer-reviewed literature were further refined after a formal expert panel meeting with representation by members of an inclusion health team in a local hospital (consultant doctor and social worker), the director of policy for a national homeless charity, an inclusion health GP, a representative for the Health Service Executive, and two academics who work in the areas of homeless healthcare and health policy. The expert panel discussion led to the strengthening of the research in several key ways with the following two being the most important: First, a discussion of the diversity within populations experiencing

homelessness resulted in refining the focus of CMOCs to outcomes relating to the specific homeless sub-population of single adults experiencing long-term homelessness and complex needs. Second, discussions revealed that sufficient data about a number of important health system features which impact access, eg financing, governance, organisational culture, policies and strategies, were missing from the peer-reviewed literature sources and various suggestions were made for sources that would inform that shortcoming.

To attempt to more fully explain high level health system features which impact access additional data were collected then through citation tracking and through additional searching of grey literature sources. The results of these searches were screened and then coded in a similar way to the peer-reviewed literature. Initial codes were developed inductively from the first several sources and then applied deductively with new codes created as needed as the remainder of the sources were coded. Labels of context, mechanism and outcome were assigned when possible and at times not assigned if a code did not have a clear placement. Contexts, mechanisms and outcomes are not static labels but can change in relation to each other eg something can be a context in one instance but a mechanism in another and an outcome can become a context for another CMOC depending on its explanatory role in the given configuration(30). Codes were then organised into groups depending on whether they were related to the individual seeking care, the healthcare provider and/or programme providing care or the health service/ health system in which that healthcare is organised. These new data were then used to create more CMOCs using the new data combined with those collected from the first round of searching, and to further refine the existing set created from peer-review data where useful.

Patient and public involvement

No patients were involved in the research due to time constraints. This realist review is part of a larger research project the second study of which is a realist evaluation(31) which will further test a selection of programme theories from this review. As part of that study, data will be collected from individuals who have lived experience of being homeless and having accessed healthcare.

Results

Search results and study characteristics

In total, 330 titles and abstracts were screened and 37 published review articles were deemed to meet the inclusion criteria and these then underwent full-text review. Next, during a close reading of each full article, it was determined that 13 of the 37 articles that were initially included in the analysis did not fully meet relevance and/or rigour standards and they were thus excluded leaving a total of 24 articles for inclusion (see table 1). All studies included in the reviews were from high income countries, the majority having focused on the USA, Australia and the UK.

An additional 23 primary peer-reviewed articles and grey literature sources were identified through citation tracking, from expert recommendations and through a subsequent purposive search of the grey literature via Google and the websites of relevant organisations. The majority of these were from the UK.

[Insert figure 2]

Number	Authors	Year	Title	Countries	Topic/intervention	Aims of review
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1	1	Aidala, A; Wilson, M; Shubert, V; Gogolishvili, D; Globerman, J; Rueda, S; Bozack, A; Caban, M; Rourke, S.	2016	Housing Status, Medical Care, and Health Outcomes Among People Living With HIV/AIDS: A Systematic Review	United States, France, Spain, Italy, Finland and South Korea	HIV treatment	To review the literature on the role of housing status for medical care and health outcomes among people with HIV infection
2	2	Brown, A; Rice, S; Rickwood, D; Parker, A.	2016	Systematic review of barriers and facilitators to accessing and engaging with mental health care among at-risk young people	Australia, UK, USA, Canada	Mental health services	To review the literature on the barriers and facilitators to accessing and engaging with mental health care among young people from potentially disadvantaged groups.
3	3	Crock, E.	2016	Access to healthcare services for people living with HIV experiencing homelessness – a literature review	USA, Canada, Australia	Community nursing	To review the literature on strategies that enhance the ability of people living with HIV who are homeless to access health care services, in particular community nursing services.
4	4	Dawson, A; Jackson, D.	2013	The primary health care service experiences and needs of homeless youth: A narrative synthesis of current evidence	USA, Australia	Primary healthcare	To review the literature on access to primary healthcare services for homeless youth
5	5	Elliott, A.	2013	Meeting the health care needs of street-involved youth	Canada, USA	Full spectrum healthcare	To reviews reasons why youth turn to the street, risks of the 'street economy' and barriers to health care.
6	6	Hamilton, K; Tolfree, R; Mytton, J.	2018	A systematic review of active case-finding strategies for tuberculosis in homeless populations	USA, UK, France, Germany, Switzerland, Australia, Poland, Spain	Tuberculosis	To review the literature to determine the effectiveness of active case finding for TB control, and identify strategies to improve uptake of screening and the diagnostic pathway in homeless populations in low- and medium-burden settings.
7	7	Harris, M; Rhodes, T.	2013	Hepatitis C treatment access and uptake for people who inject drugs: a review mapping the role of social factors	Not specified	Hepatitis C treatment	To review the literature on barriers to hepatitis C treatment access, uptake and completion for people who inject drugs.
8	8	Hudson, B; Flemming, K; Shulman, C; Candy, B.	2016	Challenges to access and provision of palliative care for people who are homeless: a systematic review of qualitative research	USA, Canada, Sweden, UK, Australia	Palliative care	To review published qualitative research exploring challenges to palliative care access and provision.

9	Islam, M; Conigrave, KM.	2007	Assessing the role of syringe dispensing machines and mobile van outlets in reaching hard-to-reach and high-risk groups of injecting drug users (IDUs): A review	Norway, the Netherlands, Italy, Australia, Germany, Switzerland, France, Spain, USA, Canada, Russia, Bulgaria, Lithuania	Needle exchange	To review the effectiveness of syringe dispensing machines and mobile van or bus-based needle syringe programmes in making services accessible to hard-to-reach and high-risk groups of IDUs.
10	John, W; Law, K.	2011	Addressing the health needs of the homeless	UK and other not specified	Nursing	To review the literature on the health needs of homeless people and what role can nurses play in addressing homeless people's health needs
11	Jones, C; Perera, A; Chow, M; Ho, I; Nguyen, J; Davachi, S.	2009	Cardiovascular disease risk among the poor and homeless - What we know so far	Not specified	Cardiovascular care	To review the literature detailing the relationships between poverty, homelessness and cardiovascular disease.
12	Kaduszkiewicz, H; Bochon, B; van den Bussche, H; Hansmann-Wiest, J; van der Leeden, C.	2017	The Medical Treatment of Homeless People	Not specified	Primary and inpatient hospital care	Review the medical treatment of homeless people in Germany
13	Klop, H; de Veer, A; van Dongen, S; Francke, A; Rietjens, J; Onwuteaka-Philipsen, B.	2018	Palliative care for homeless people: a systematic review of the concerns, care needs and preferences, and the barriers and facilitators for providing palliative care	USA, Canada, Sweden, UK, Australia, Ireland	Palliative care	To review the evidence of the concerns and palliative healthcare needs for homeless people, as well as the conditions for delivering good quality palliative care for the target group.
14	Lamb, J; Bower, P; Rogers, A; Dowrick, C; Gask, L.	2012	Access to mental health in primary care: a qualitative meta-synthesis of evidence from the experience of people from 'hard to reach' groups	UK, Finland, Switzerland	Mental health treatment in primary care	To review understand barriers to mental health treatment for eight socially excluded groups incl homeless.
15	Luchenski, S; Maguire, N; Aldridge, R; Hayward, A; Story, A; Perri, P; Withers, J; Clint, S; Fitzpatrick, S; Hewett, N.	2018	What works in inclusion health: overview of effective interventions for marginalised and excluded populations	Not specified	Healthcare, social care, housing	To review effective interventions that directly affect health (eg, pharmacology, counselling, screening, prevention) or the wider determinants of health (eg, housing, social support, training and education, employment, crime, and recidivism).

16	Lutge, E; Wiysonge, C; Knight, S; Sinclair, D; Volmink, J.	2015	Incentives and enablers to improve adherence in tuberculosis	USA, Timor-Leste, South Africa	Tuberculosis	To review the effects of material incentives and enablers given to patients undergoing diagnostic testing for TB, or receiving drug therapy to prevent or cure TB.
17	Martens, W.	2009	Vulnerable categories of homeless patients in Western societies: Experience serious barriers to health care access	Not specified	Primary care, mental health care, addiction treatment	To review healthcare access for especially vulnerable categories of homeless persons.
18	Robards, F; Kang, M; Usherwood, T; Sanci, L.	2018	How Marginalized Young People Access, Engage With, and Navigate Health-Care Systems in the Digital Age: Systematic Review	UK, USA, Australia, Canada, New Zealand, and Portugal	Full spectrum healthcare	To review what is known about marginalized young people's access to, engagement with, and navigation of the health system in the digital age.
19	Sumalinog, R; Harrington, K; Dosani, N; Hwang, S.	2017	Advance care planning, palliative care, and end-of-life care interventions for homeless people: A systematic review	USA, Canada, Sweden	Shelter based palliative care programme, completion of advance directive, professional support home services.	To review the evidence surrounding advance care planning, palliative care, and end-of-life care interventions for homeless persons.
20	Tankimovich, M.	2013	Barriers to and interventions for improved tuberculosis detection and treatment among homeless and immigrant populations: a literature review	USA, UK, Spain, Israel, the Netherlands, Ethiopia	TB detection and treatment	To review barriers to the detection and treatment of TB in immigrant and homeless populations in the United States and to review effective interventions for improved detection and treatment.
21	Wallace, C; Farmer, J; McCosker, A.	2018	Community boundary spanners as an addition to the health workforce to reach marginalised people: a scoping review of the literature	USA, UK, the Netherlands, Australia, New Zealand.	Lay person patient navigators/peer workers/ link workers.	To review the literature on the role played, in health service delivery and health literacy development in high-income countries, by community-based lay persons
22	Weber, J; Lee, R; Martsolf, D.	2017	Understanding the health of veterans who are homeless: A review of the literature	USA	Public health nursing	To review the literature of what is known about the health of homeless veterans.

23	White, B; Logan, A; Magwood, G.	2016	Access to Diabetes Care for Populations Experiencing Homelessness: an Integrated Review	USA and Canada	Diabetes care	To review the literature to identify barriers and facilitators to accessing diabetes care and managing diabetes for homeless populations.
24	White, B; Newman, S.	2015	Access to primary care services among the homeless: a synthesis of the literature using the equity of access to medical care framework	USA	Primary care	To review the literature to identify barriers and facilitators to primary care access among the homeless.

Table 1 Summary table of included studies from systematic peer-review search

Focus of the review

Initial analysis resulted in two broad conceptual sets of findings: one related to how services are organised and delivered and another related to the process of training and the development of the right professional skills, attitude and awareness that allows staff to best provide such services. Based on team discussions and with the recognition that we would not be able to fully explore all findings, we decided to focus on the topics most relevant to the research question. The findings around service delivery and organisation were chosen as the focus for the next stage of the review.

Programme theories and CMOCs

Using the data collected from the three rounds of literature searching, a total of 73 individual CMOCs were generated through several rounds of analysis over the course of several months. There was overlap among some of the CMOCs but it was important to capture and articulate the relationship between each distinct context, mechanism and outcome and to interrogate whether they shared a causal relationship before combining some together and rejecting others.

Once that analysis was completed, we grouped together similar CMOCs into the six consolidated CMOCs as described in detail in the narrative below.

In the CMOCs below, while the contexts operate on a health system or service level, mechanisms are activated within individuals (eg patients, healthcare practitioners, staff) which makes intuitive sense as a mechanism 'involves the interaction between particular inputs (or resources) and human reasoning, which produces a particular outcome (or not)' (32). It is clear in this analysis that even in an examination of systems and systemic workings, causal processes depend on the people who operate within those systems and how they respond to the conditions they find themselves within.

CMOC 1: Resourcing

The first consolidated CMOC (fig 3) explores contexts where mainstream healthcare practitioners and staff (in hospital and primary care settings) are expected to treat a high need patient group (long-term homeless populations with complex needs) but are not being provided adequate resources and incentives (eg extra funding for longer appointments and more coordination) while also having inadequate expertise in the particular needs and life experiences of this group. (33–36) In these contexts, practitioners and staff feel that servicing patients experiencing homelessness is professionally demanding and challenging. They experience feelings of professional inadequacy and lack of confidence and display an unwelcoming attitude toward patients.(17,33–35,37–41) As a

result, patients’ experience of the care environment is a negative one which causes them to choose not to seek care at an appropriate time (eg seeking care from a GP before a condition gets worse and acute care is needed).(17,33,38,42–44)

The outcome of not seeking care when the care environment is not welcoming becomes a new context which leaves patients instead to seek care only when the need is emergent and out of desperation, and at a later stage than ideal and at a setting that is readily available (such as the ED).(17,38,40,42,45) This results in exacerbated need leading to more complex, intensive and costly care which ultimately generates poorer health outcomes.(38,42,46)

[Insert figure 3]

CMOC 2: Funding stability and source

CMOC2 (fig 4) shows that in a context where funding for health services comes from multiple sources and where funding cycles are short and unreliable, eg grant funding for specific purposes with a short duration,(39,42,44,47) staff members employed on short term contracts experience a lack of a sense of stability and sustainability because they are in a series of continual contract renewals and do not have job security and, especially in periods of austerity, may experience wage cuts and wage freezes. The precarious sustainability of the services they work for lead to staff being asked to do more with less. Work tasks change when pilot schemes and new initiatives bring additional goals tied to new funding while staff still have to complete existing tasks. Additionally, individuals working in these services are often seen by their managers as being naturally caring people who are intrinsically motivated to ‘do good’ and who do not need adequate pay and conditions because of the perception that their motivation lies elsewhere.(36,44,48–50) (44,51) Frequent changes make it difficult to achieve good outcomes for people who need extra time and attention and for whom forming trusting relationships with practitioners is particularly important in accessing care, as is explored below in CMOC5. The outcome is difficulties hiring and retaining highly skilled and experienced staff members.(36,44,48–50)

[Insert figure 4]

CMOC 3: Health system fragmentation and goals

CMOC3 (fig 5) shows that in a context where various parts of a fragmented health system operate in silos with a narrowly defined scope of goals,(38,39,42,44,52) staff engage in organisation-centred thinking and prioritise the goals of the health system even when they are not suitable for responding to the complex needs of homeless patients whose care should be organised across a number of domains. Staff often lack knowledge of how to best meet the needs of patients experiencing homelessness and complex needs while health system goals and targets are more clearly defined as part of professional structures and workstreams. (38,39,52) Staff and practitioners are not incentivised or empowered to take responsibility for creating holistic, coordinated and flexible ways of organising care around a patient’s needs and wishes because they are instead asked to meet narrowly defined targets tied to funding and the expectations of commissioners. As a result, healthcare is organised around explicit and implicit health system goals not the needs or goals of the person.(18,38,39,42,52,53)

[Insert figure 5]

CMOC 4: Care organised around the person

In contrast to CMOC 3, CMOC 4 (fig 6) shows that when care is organised around the person and

their needs, resulting outcomes produce conditions that promote healthcare accessibility. In this context, the mechanism of flexibility and personalisation is triggered, allowing patients to feel that their particular needs are understood and met.(25,36,40,52,54–57)

Additionally, health system navigability is enhanced through having coordinated and co-located care,(7,36,40,41,55,58–60) through having clear and intuitive patient pathways managed by staff and practitioners who create connectivity between services by bringing patients along to any subsequent treatment, scan, consultation etc in the given patient pathway , (18,40,55,61,62) and through accompanying patients either by link workers or peer advocates.(25,40,62–66) Having this kind of support helps patients by providing extra motivation and confidence in seeking health services when needed and navigating institutional locations such as hospitals and clinics, and negotiating patient pathways which may be complex.(40,42,55,62) Peer advocates have a unique understanding of the experience the patient is having and have the ability to meet patients where they are and provide emotional and practical support.(40,45,60,63–65)

And finally, when care is organised around the person it is inherently respectful of other demands on their time and their particular goals (or lack thereof) for their own health. Services are characterised by timeliness and openness. For example, if as many services as possible are carried out in one clinical encounter and a course of treatment is chosen through shared and transparent decision making, then responsibility is placed on the service to make itself fit with the patient's life circumstances and to share knowledge and decision making to promote initial accessibility and beyond. (25,40,59,61–64,67)

[Insert figure 6]

CMOC 5: Inclusive culture and leadership

CMOC 5 (fig 7) examines the importance of culture and leadership in creating inclusive health system contexts. Through the dominant culture the value assigned to people from stigmatised groups contributes to their experience of poorer care because of prejudice and stereotypes commonly held about them. Populations experiencing homelessness face stigma when engaging with all areas of society including healthcare settings.(25,54,64,68,69) Creating the right cultural context depends on leadership and management through explicit commitments to values of inclusivity and whole organisation policies and processes.(34,38,42,44,53,70–72)

In the articles reviewed, stigma is a crucial mechanism which keeps individuals experiencing homelessness from accessing healthcare (17,18,25,36,40,60,63,73) (the impact of stigma on the patient experience is explored above in CMOC1). On the other hand, when individuals experience an environment that is non-stigmatising, respectful, empathetic, accepting, sensitive and understanding of their life experience and particular needs, trust develops between the patient and the practitioner(s) and a positive feedback loop is created leading to a productive patient/practitioner relationship developing over time. Still operating in a context which explicitly values and promotes inclusivity, trust becomes a reinforcing mechanism whereby deepening trust facilitates ongoing engagement which leads ultimately to ongoing appropriate access to health services at the right time and right place.(40,41,54–56,59,63–65)

[Insert figure 7]

CMOC 6: Flexible healthcare delivery

CMOC 6 (fig 8) explores the context of flexibility in healthcare services delivery in terms of appointment length, availability of walk-in appointments and self-referral, opportunistic add-on

services such as vaccinations and screenings, allowing dogs, trauma-informed practice and understanding of behaviours that trauma can result in, and more.(25,33,44,47,54,55,58,59,63,74–77)) Flexibility is also a mechanism in CMOC 4, while here it is acting as a context characterising the approach to and design of care delivery.

In this context, practitioners and staff with expertise and experience with the population group are able to anticipate the common interventions that may be needed, to adapt to the particular needs of the patient in front of them, and to use their expertise to provide the treatment that is most needed in the current situation. Communication is tailored to the patient with awareness of potential literacy issues common in the population.(40,41,45,56,61,62,64,67,78) This stands in contrast to what happens when services do not have proper resources and when providers and staff do not have expertise and experience as explored in CMOC1.

In the context of flexible healthcare delivery, patients’ needs are identified and if met in the manner described in CMOC4, this experience forms a new context. In this new context (‘needs identified’), experiences of lowered frustration and fear is engendered in patients because they do not have to fit into a mould of a health service which is difficult to navigate and not likely designed with them in mind.(41,45,54,58,59,63) Resulting from that, patients feel seen and understood which becomes a new context (‘patients feel seen and understood’) in which ongoing engagement from both sides is possible and pathways can be created with high levels of flexibility and assistance.(45,54–56,63) Patients are able to follow these peer, key-worker and/or health staff assisted pathways and ultimately this leads to ongoing appropriate access to services over a course of treatment or on an ongoing basis as needed. A cyclical nature of an ongoing and trusting relationship is established and reinforced over multiple interactions.(25,40,45,63–65,74,79)

[Insert figure 8]

Full programme theory

The overarching programme theory synthesising the full set of findings from this review (fig 9), shows that a set of interlinking factors must all be in place for healthcare access to be successful for populations experiencing homelessness.

It shows that the combination of resourcing, funding stability, health system fragmentation and goals, the degree to which care is organised around the person, the degree to which leadership promotes an inclusive culture, and the flexibility of healthcare delivery set the stage for accessibility.

When resources (funding, expertise, experience of patient group) are adequate, when funding cycles are long and stable, when there is a low degree of fragmentation and health service goals support integrated working, when healthcare is organised around the patient and delivered flexibly, and when services are provided in an inclusive culture championed by leadership then services can be provided in the way explained in the blue and green boxes. That is that healthcare services are organised and provided (as explained in the blue boxes) in a manner that is: connected to and collaborating with other practitioners and services; personalised to the needs and desires of the patient; holistic in looking at the patient as a full person; timely in that services are available when needed and take into account the patient’s lifestyle and other commitments; expert-led where staff and practitioners have adequate expertise and experience of populations experiencing homelessness, allowing them to anticipate and opportunistically act on multiple healthcare needs in one encounter; intuitive in that patients can understand and easily follow patient pathways, with staff/peer-advocate assistance as needed; and transparent in that confidentiality is clear and decisions are made between patient and provider in an open and honest way based on patient

desires and not the needs of practitioners. Additionally in an inclusive culture with flexibility and autonomy allowed, staff with the right experience and expertise are enabled to project an attitude of non-judgement, acceptance and empathy as described in the green boxes.

On the other hand, when those system features are not in place or not fully in place, the patient experience of health services is impacted negatively. Eg when health services are provided in a fragmented way, it is not possible to provide timely care because each service operates on their own schedule and each step on a patient pathway depends on a referral from the last.

[Insert figure 9]

Discussion

Statement of principal findings

Populations experiencing homelessness face a number of barriers to accessing healthcare at the right time and at the right place. Important health system contexts which impact access are resourcing, training, funding cycles, health system fragmentation, health system goals, how care is organised, culture, leadership and flexibility of care delivery. Key mechanisms which are activated in these contexts are staff attitudes, staff confidence, staff experience of stability and sustainability, organisation-centred thinking, flexibility, transparency, timeliness, demonstration of respect and empathy, trust, adaptability, and anticipation.

Strengths and limitations

In this review we have used the RAMESES publication standards (80) to guide us in rigorously and systematically reviewing and synthesising the literature included here.

This analysis has taken a high-level view of systematic factors across a breadth of data not focused on specific interventions or disease areas. Our findings have uncovered modifiable health system and service contexts that are applicable and transferrable among high-income countries. The analysis has been informed by the involvement of content experts and stakeholders who have confirmed and challenged findings resulting in further refinement.

Like any review this one relies on the available literature. A potential limitation of this study is that the initial search of peer-reviewed articles included only literature reviews which may mean that we missed some articles. However, a large volume of relevant data was identified through the reviews and these were further augmented by citation tracking, expert advice and additional searching to identify additional key documents. Our search did not identify studies from low-and middle-income countries and we cannot therefore say whether our findings are transferrable in such contexts. More research is needed to explore how the contexts outlined here are applicable or not to low-and middle-income countries, how, for whom and why. Much like a majority of the literature on access to healthcare for populations experiencing homelessness the initial programme theory took the perspective of an individual seeking to access healthcare services. However, as the goal of this review was to explain health system factors impacting healthcare access for populations experiencing homelessness, the initial programme theory did not inform the direction we sought to move in well. Uncovering literature sources discussing system level factors took more digging.

None of the included peer review studies specifically analysed health system features. Some analysed service/programme level features that promote or impede access (41,65) but the majority of reviews synthesised and described the accessibility of particular individual level treatments such as for TB, diabetes, palliative care and cardiovascular disease.(40,54,62,67,73,81,82) However, grey

literature sources added substantially to the set of findings about high-level health system contexts and mechanisms (eg resourcing, expertise, funding cycles, fragmentation and goal setting).

The included data sources did not differentiate between health access outcomes specifically in response to health system features within subgroups among long-term single homeless individuals with complex needs. Therefore the ‘for whom’ part of the analysis was not as fully developed as it might have been with more research needed.

There was wide variety in the quality of the reviews themselves with some being transparent and following the guidelines of their particular review methodology closely (eg search string and list of databases provided, appropriate quality appraisal tools used, systematic approach, using appropriate reporting standards, etc) while others did so to varying degrees and a few not at all. A majority of reviews were based on qualitative, descriptive, and small-scale quantitative studies using a variety of methods eg RCT, cohort and case-control studies. The majority of included studies evaluated a particular aspect of healthcare access eg association between having health insurance and having a usual source of care.(83)

Comparisons with existing literature

We are aware of no other realist reviews examining healthcare accessibility for populations experiencing long-term homelessness and complex needs and of no other reviews of any approach that have examined high-level health system features that impact healthcare accessibility for the same population group. Other reviews have focused on specific healthcare interventions and most take the point of view of the patient navigating services or systems. This review differs in that we have analysed the upstream health system and service contexts that promote healthcare accessibility and have found generalisable features not specific to a particular intervention or the treatment of particular illnesses. These uncover causative relationships between how healthcare is organised and delivered at a systems and service level and its accessibility for populations experiencing homelessness and complex needs.

A realist review by Ford et al (84) of factors that impact access to primary care for socioeconomically disadvantaged older people in rural areas focused on the patient journey in accessing healthcare and not on health system features. However, there were similarities between its’ findings and ours: at the service level, both studies found barriers related to ease of booking, clarity of information, system and service navigability, provider responsiveness to patient needs, patient empowerment, social status, trust, and clinician empathy and capacity.

There are similarities between our review and Aday and Andersen’s ‘A framework for the study of access to medical care’.(12) Our CMOCs all explain aspects of the two first boxes in their Framework: health policy (eg financing, education, manpower and organisation) and characteristics of health delivery system (eg resources, organisation).

Our CMOCs also hold some similarities with Levesque et al’s ‘Patient-centred access to health care: Conceptualising access at the interface of health systems and populations’ (85) although it is focused on the individual patient journey. Concepts including acceptability (eg professional values, norms and culture) as well as appropriateness (eg technical and interpersonal quality, coordination and continuity) are important to CMOCs 1, 4, 5 and 6.

Meaning of the study

As in other realist works, our analysis has uncovered demi-regular patterns of outcomes resulting from mechanisms being activated in the specific contexts described in the literature. Mechanisms

are not always activated in a given context. Outcomes are occurring at both a system level and individual level. The topic of access to healthcare for homeless populations is a complex one in and of itself but it sits within an area of much more complexity: the general treatment of homeless and socially excluded populations in all areas of society including health, housing and social care. The narrow focus on access to healthcare here is due to the specificity needed to conduct sound research, however, this focus is not meant to be seen as an argument for siloed thinking and service provision.

In fact, population groups on the extreme margins of society, such as populations experiencing long term homelessness, are in particular need of comprehensive, joined up strategies in their care. These populations tend to exist at the intersection of multiple disadvantages in life (eg substance use, childhood trauma, poor mental health, contact with criminal justice systems) which can amplify each other. At the same time, these people also have a high risk of falling into gaps between service and policy areas each focused on their particular goals and targets. For example, housing and health policies are often not joined up. (86)

It is well known that lacking adequate housing in and of itself causes illness to occur (2). It is likely that many of the findings in this review can be applied more broadly to all socially excluded populations and form a basis for thinking about how to make a health system fully responsive to populations experiencing a variety of deprivation or differentiation from 'the norm' and thus truly universal, informed by existing approaches such as Universal Design.(87) A non-judgemental, flexible and empathetic approach should be applied to all services for all socially excluded populations and beyond, in conjunction with a joined up approach to health and social care(64,79,87).

The first three CMOCs above (CMOC 1-3) were generated almost exclusively from grey literature sources and the other three (CMOC 4-6) were generated primarily from peer reviewed literature. The grey literature included many high-level systems topics including resourcing, funding cycles, the siloed nature of healthcare, health system goal setting and more, as well as describing patient level factors. The majority of the peer reviewed literature described patient level healthcare interactions. In these interactions, contexts are often reflective of systematic or at least service-level planning, management, culture and leadership decisions and practices but they were not explicitly examined. There is a need for more research exploring healthcare access from a health systems perspective.

Implications for policy and future research

Based on the findings in the review, we recommend the following points for further exploration and research and future policy making in the area:

1. Healthcare services should be funded using multi-year stable funding cycles (CMOC 2)
2. Healthcare services for vulnerable populations should be the specific responsibility of a health system entity so it is not allowed to fall between different sectors or budget lines (CMOC 2 and CMOC 4)
3. Healthcare for individuals experiencing homelessness should be provided in settings that do not allow stigma to dominate the culture. Trauma-informed practice and a deep understanding of the life experiences of socially excluded populations at all levels of an organisation or system are key and these should be championed by leadership and management to create a culture that is accessible to all (CMOC 1 and CMOC 5)
4. Healthcare should be easy to navigate for patients. Pathways, procedures and communication should all be highly coordinated and designed with patients' needs in mind. One-to-one support from key workers and peer-advocates increase navigability (CMOC4)

5. Courses of treatment should be planned transparently in collaboration with the patient based on his or her full set of needs and wishes as a full person (CMOC4)
6. Healthcare should be provided in flexible settings with flexible rules to allow for meeting patients' life circumstances and needs where they are (CMOC 4 and CMOC 6)
7. Healthcare system goals should be set with flexibility and complexity in mind CMOC 1, CMOC 3 and CMOC 6)
8. Providers and staff should be recruited based on their motivation in working with the patient population and adequate training should be given to ensure that all staff and providers understand the needs of the population group (CMOC1 and CMOC 6)

These recommendations will likely benefit most patients, housed or not, and as such investing in them would pay dividends for populations beyond those experiencing homelessness. However, for homeless populations these are crucial to ensuring that an already vulnerable group does not face further social exclusion when accessing healthcare.

Conclusion

Access to healthcare for populations experiencing homelessness depends on adequately resourcing and training providers to meet the particular needs of patients in a welcoming and attentive setting without stigma and judgment. Services should be closely linked, and staff and providers should be empowered to take responsibility for providing flexible, responsive and opportunistic care in flexible settings. For patients, having a good experience and getting one's needs met sets a precedent for future appropriate healthcare access. The contexts in which this is possible arise in a respectful, empathetic culture which is created when managers and leaders value and champion it.

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Authorship

RS, CNC, SB, JF and ST developed the research project. RS, JF and CNC developed the search strategy with the help of a subject librarian. RS and JF shaped and refined formal search strategies. RS carried out screening and article selection process, applied a realist logic of analysis to the data, built CMOCs and programme theories, presented to the expert panel and drafted the article. SB screened a subset of articles and facilitated the expert panel meeting. CNC added to the refinement of CMOCs and programme theory. JF provided guidance and oversight of the realist analysis and added to the refinement of CMOCs and programme theory. CNC, SB, JF and ST provided subject matter expertise and critical revisions at multiple stages. All authors read, reviewed and approved the final manuscript.

Data sharing statement

All data relevant to the study are included in the article or uploaded as supplementary information.

Figures

Figure 1 The stages of a realist review

Figure 2 Prisma diagram

Figure 3 CMOC 1: Resourcing

Figure 4 CMOC 2: Funding stability

Figure 5 CMOC 3: Fragmentation and goals

Figure 6 CMOC 4: Care organised around the person

Figure 7 CMOC 5: Inclusive Culture and leadership

Figure 8 CMOC 6: Flexible healthcare delivery

Figure 9 Overarching programme theory

Table 1 Summary table of included studies from systematic peer-review search

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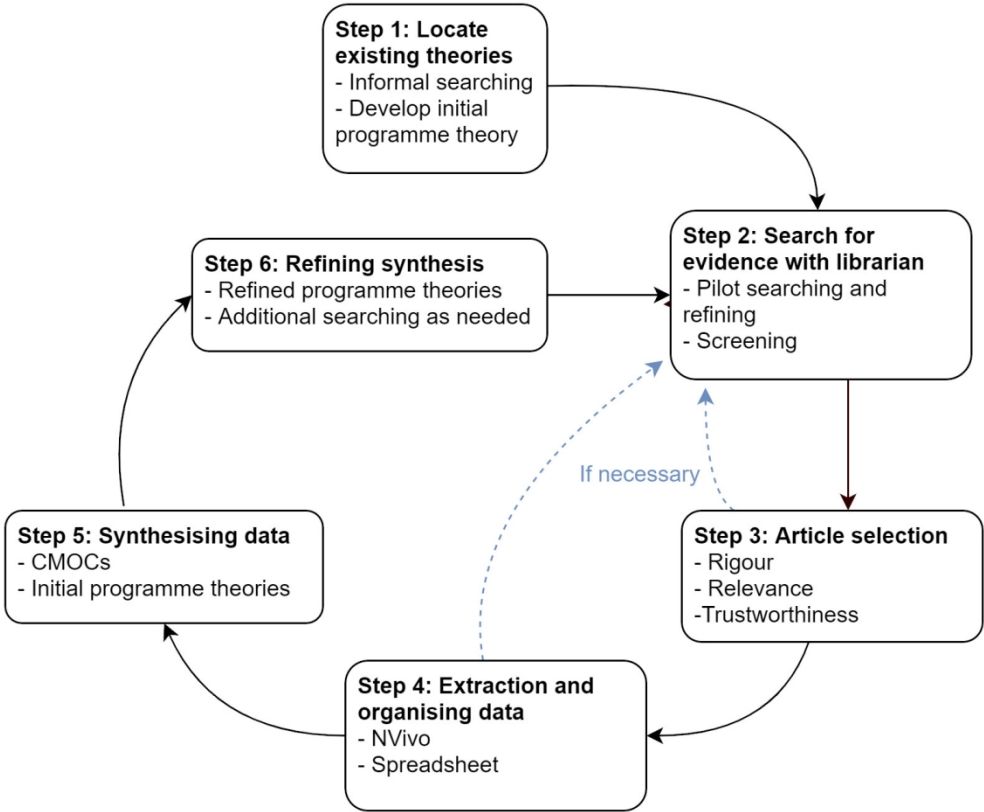
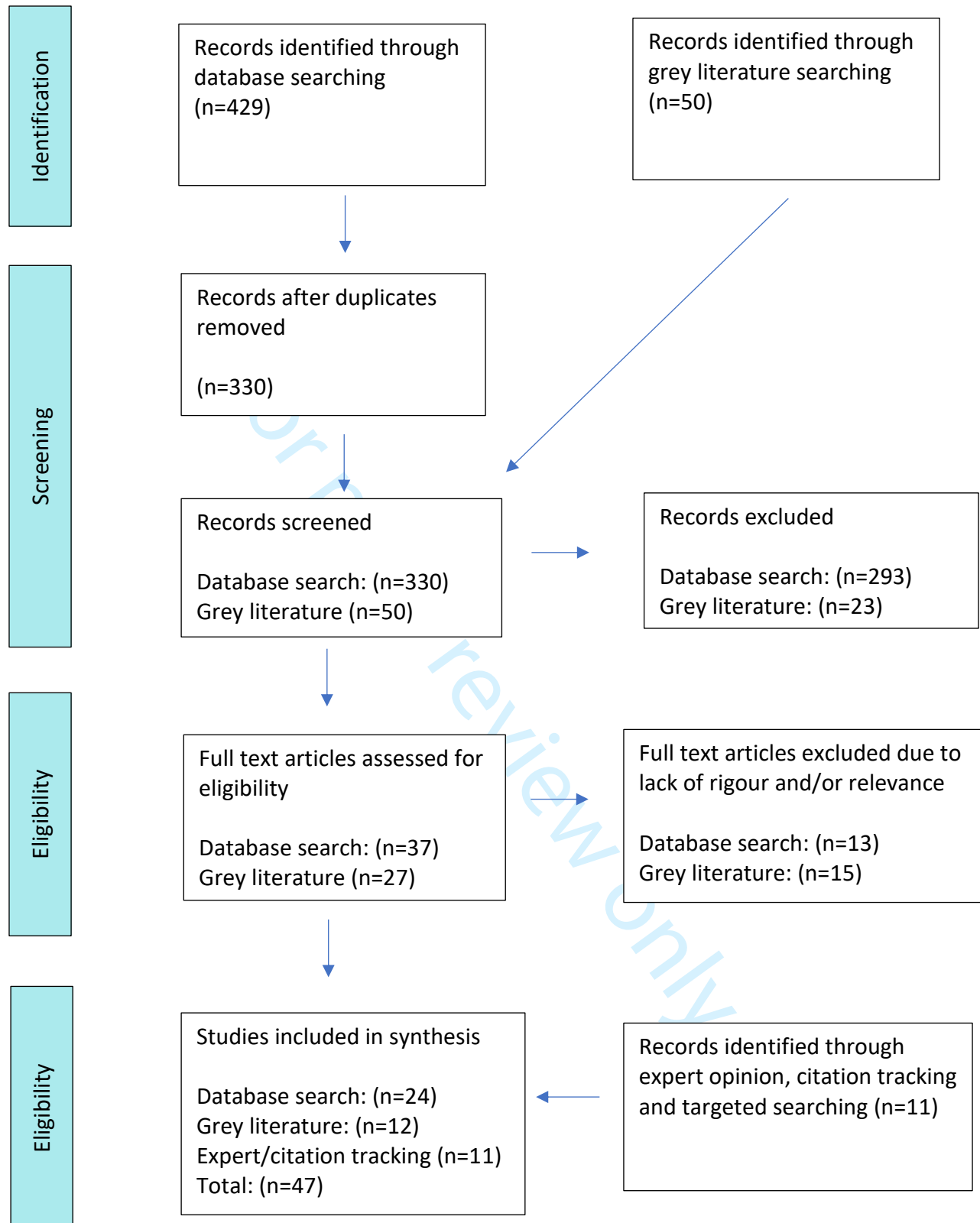


Figure 1: The stages of a realist review



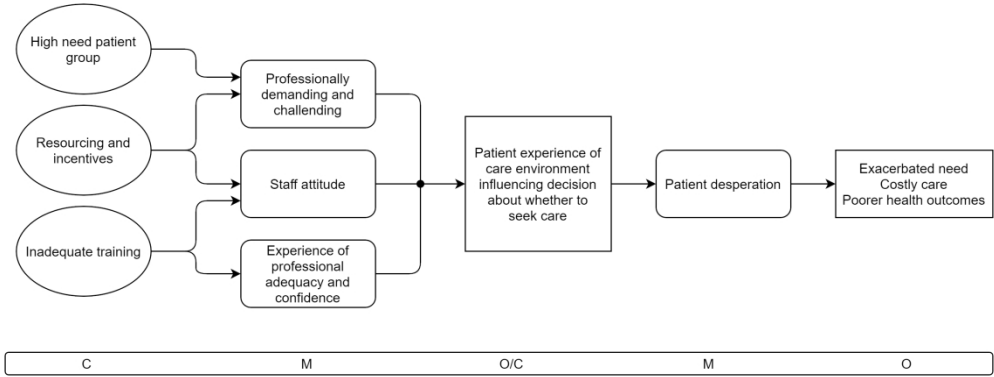


Figure 3: CMOC 1 Resourcing

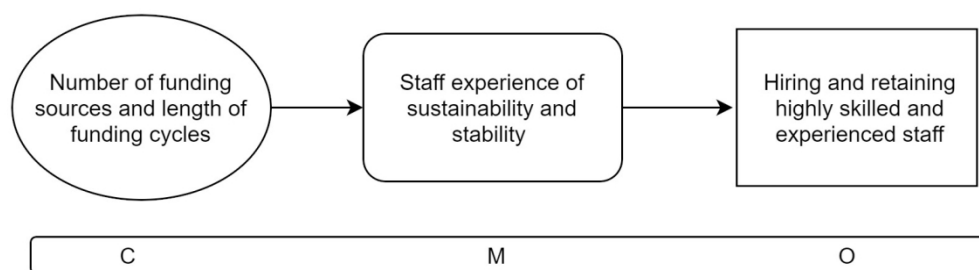


Figure 4: CMOC 2 Funding Stability

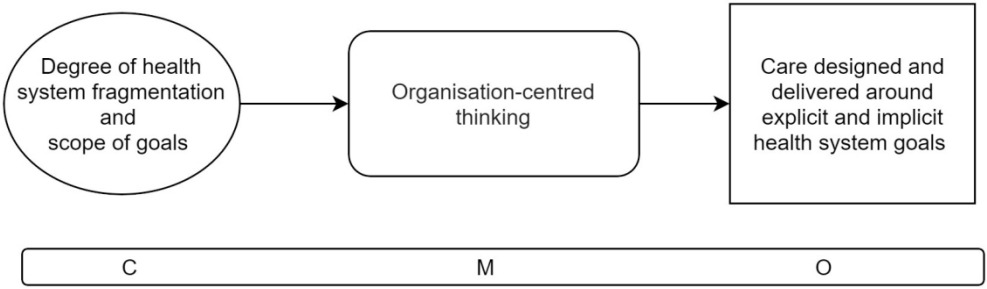


Figure 5: CMOC 3 Fragmentation and goals

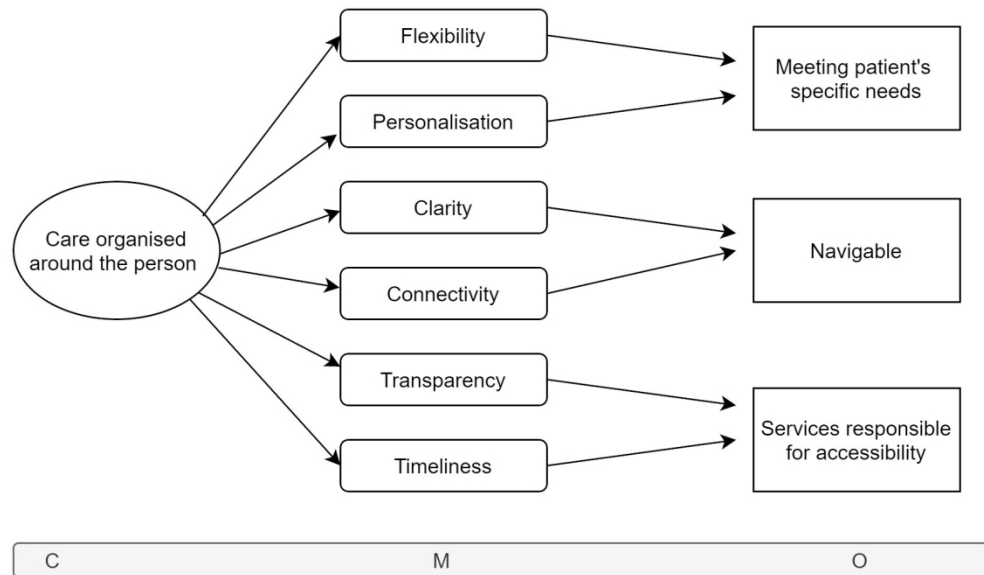


Figure 6: CMOC 4 Care organised around the person

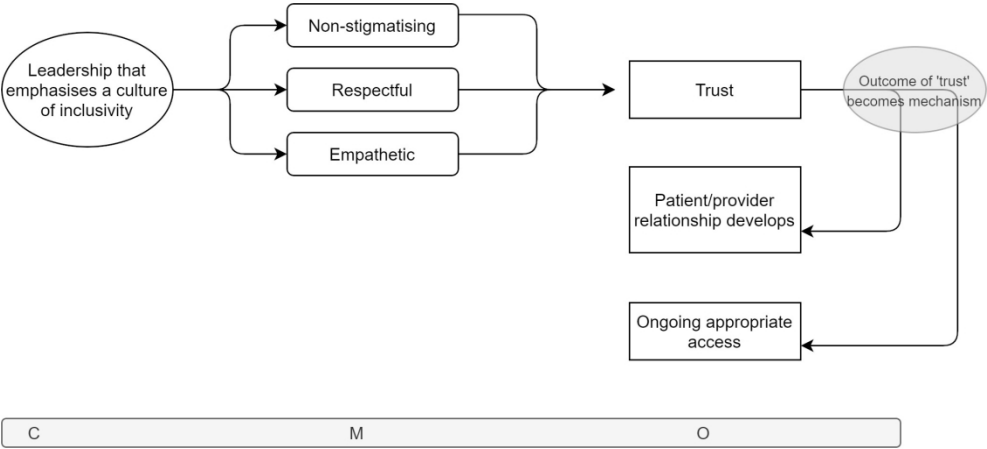


Figure 7: CMOC 5 Inclusive culture and leadership

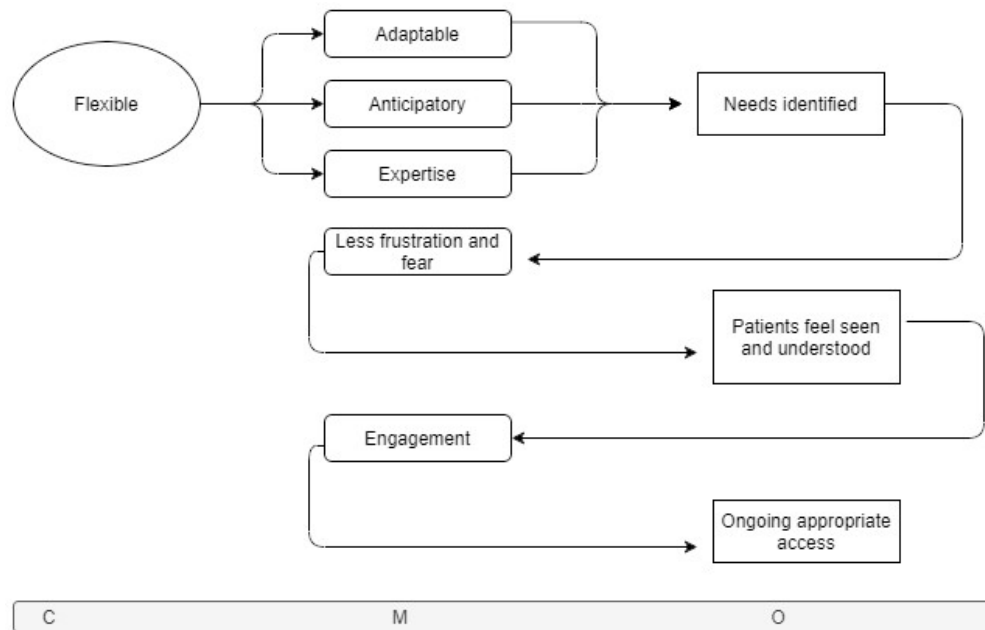


Figure 8: CMOC 6 Flexible healthcare delivery

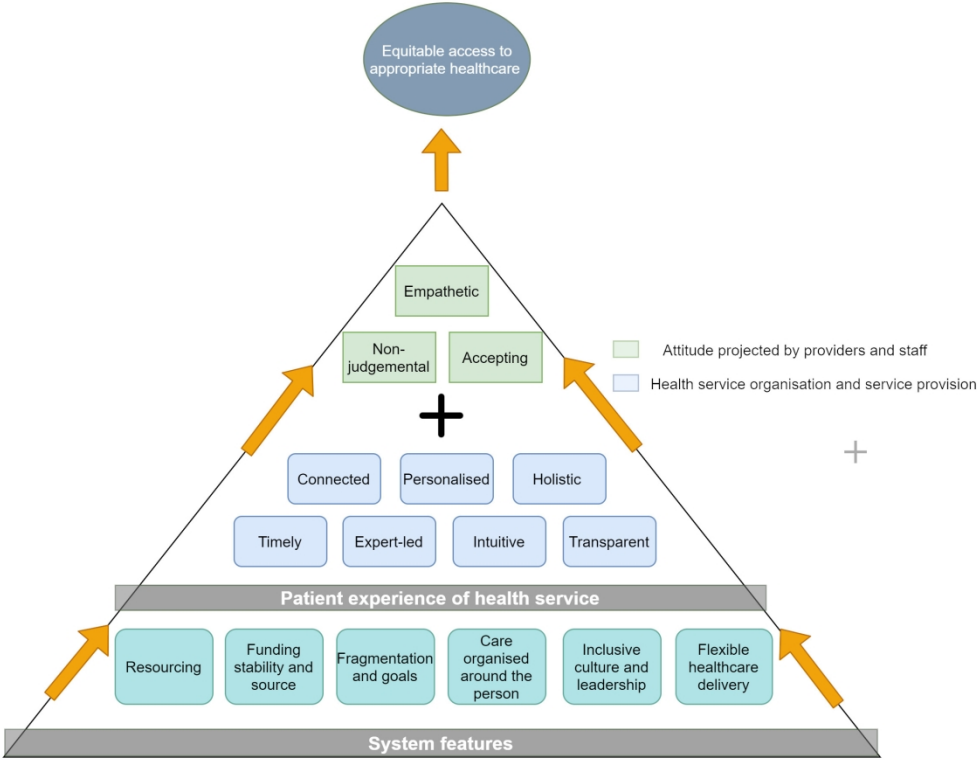
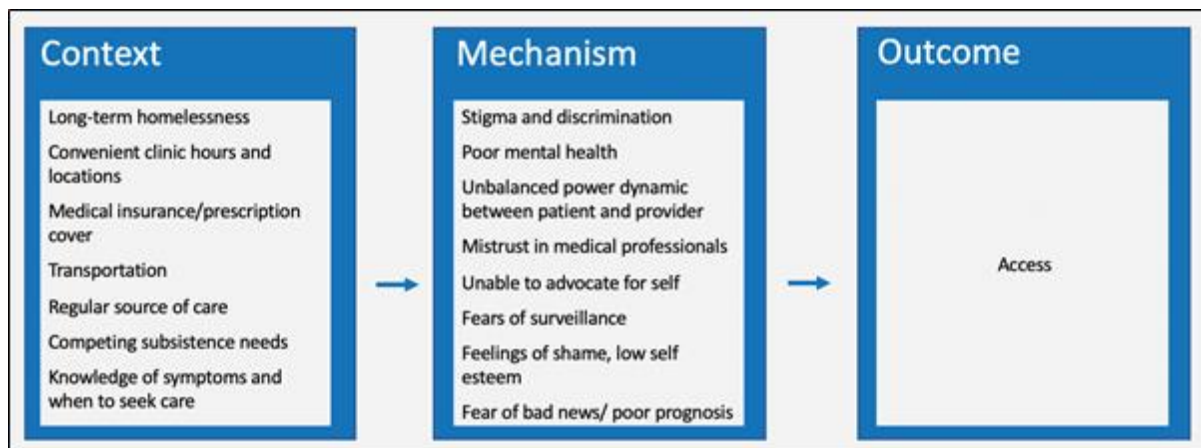


Figure 9: Overarching programme theory

Siersbaek et al *Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review*

Supplementary data

1. Initial rough programme theory



2. Systematic literature searches

Ovid MEDLINE (25 April 2019)

Number	Search details	Hits
1	exp Homeless Persons/	8,246
2	(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "indigenous people" OR "indigenous population*").ab,ti.	16,947
3	exp Health Services Accessibility/	104,062
4	("health service* barrier*" OR "health service* access*" OR "health care access*" OR access adj2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier adj2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet)).ab,ti.	22,007
5	1 OR 2	19,141
6	3 OR 4	118,956
7	5 AND 6	1507
11	limit 10 to (english language AND "review articles")	154

Embase.com (26 April 2019)

Number	Search details	Hits
1	'homelessness'/exp	10,242
2	'homeless person'/exp	1,371
3	'vagrancy'/exp	11
4	(homeless*:ab,ti OR 'homeless person':ab,ti OR 'homeless population*':ab,ti OR 'no fixed address':ab,ti OR 'no fixed abode':ab,ti OR 'emergency accommodation':ab,ti OR 'supported accommodation':ab,ti OR 'supported housing':ab,ti OR hostel*:ab,ti OR 'night shelter':ab,ti OR 'bed and breakfast':ab,ti OR 'hard to reach':ab,ti OR vagrancy:ab,ti OR vagrant*:ab,ti OR 'rough sleep*':ab,ti OR 'sleep* rough':ab,ti OR 'street people':ab,ti OR 'street person*':ab,ti OR squatter*:ab,ti OR vagabond*:ab,ti OR 'inadequate housing':ab,ti OR 'hidden homeless*':ab,ti OR 'indigenous people':ab,ti OR 'indigenous population*':ab,ti	20,523
5	'health care access'/exp	55,849
6	("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet)).ab,ti.	28,437
7	#1 OR #2 OR #3 OR #4	23,407
8	#5 OR #6	78,165
9	#7 AND #8	1,286
10	#7 AND #7 AND [review]/lim AND [English]/lim	173

CINAHL (26 April 2019)

Number	Search details	Hits
1	(MH "Homeless Persons")	4,724
2	(MH "Homelessness")	3,378
3	TI homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*"	7,879
4	AB homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond** OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*"	8,236
5	(MH "Health Services Accessibility+")	72,405
6	TI 'health service* barrier*' OR 'health service* access*' OR 'health care access*' OR access ADJ2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet) OR barrier ADJ2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet)	80,358
7	AB 'health service* barrier*' OR 'health service* access*' OR 'health care access*' OR access ADJ2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet) OR barrier ADJ2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet)	80,625
8	#1 OR #2 OR #3 OR #4	12,280
9	#5 OR #6 OR #7	81,401
10	#8 AND #9	1,537
11	#8 AND #9 (limited to English and publication type: Meta Analysis, Review, Systematic Review)	101

ASSIA (26 April 2019)

Number	Search details	Hits
1	MAINSUBJECT.EXACT("Homelessness") OR MAINSUBJECT.EXACT("Homeless elderly people") OR MAINSUBJECT.EXACT("Homeless men") OR MAINSUBJECT.EXACT("Homeless families") OR MAINSUBJECT.EXACT("Homeless women") OR MAINSUBJECT.EXACT("Homeless people") OR MAINSUBJECT.EXACT("Homeless pregnant women") OR MAINSUBJECT.EXACT("Homeless older people")	4,008
2	ab(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*")	7,083
3	ti(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*")	3,796
4	ab("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet))	10,687
5	ti("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet))	1,708
6	S1 OR S2 OR S3	7,884
7	S4 OR S5	11,386
8	S6 AND S7	335
9	S6 AND S7 (limited to English language and "literature reviews" and "reviews")	1

3. Glossary of terms

Context: environments, settings, circumstances or structures that trigger mechanisms (behaviours, emotional responses) in individuals. Anything which influences the action of a mechanism. Some contexts impede or block mechanisms.

Context-mechanism-outcome configuration (CMOC): configuration that explains the causative relationship between a mechanism which is triggered in a given context and as a result produces an outcome.

Mechanism: the pre-existing, latent power, liability or propensity to which is activated in a particular context in a person operating in that context, leading to a change in behaviour.

Outcome: impact, change or action arising when a particular mechanism is activated in a particular context

Programme theory: a combined set of theoretical explanations of how a particular process, intervention or programme is expected to work

Realist approach: the realist approach to research used in realist review and realist evaluation is a theory driven way to explain generative causation in areas of study that are highly complex and in which empirical testing is not possible

Relevance: the determination of whether a particular study, report, article etc is relevant to the research question

Rigour: the determination of whether a particular finding or piece of information in a given source was arrived upon in a way that was robust and faithful to the particular method being used. If a study was done well adhering to its method it is more likely to be rigorous however all sources of data can yield pieces of helpful information.

4 Illustrative examples of included data

CMOCs	Examples of supportive data
<p>CMOC1: In a context where mainstream health practitioners and staff (in hospital and primary care settings) are expected to treat long term homeless populations without being provided adequate resources and incentives while also having inadequate expertise in the particular needs and life experiences of this group (C), practitioners and staff feel professionally challenged (M) with feelings of professional inadequacy (M) and a lack of confidence (M) and display an unwelcoming attitude toward patients (M). As a result, patients' experience of the care environment is a negative one which influences them to choose to not seek care at an appropriate time (O). This outcome becomes a new context where patients wait to seek care need is emergent (M) and they feel desperate (M). The result is an exacerbated, more costly need for care (O)</p>	<p>The other issue is resources. Nine out of ten GPs in the Crisis survey felt that GPs need extra resources in order to provide homeless people with the same levels of access to GP services as the average person. Homeless people do present with multiple and complex needs which require extra resources and sometimes specialist knowledge. GPs and practice staff are not, in general, given any specialist training in understanding the specific needs of homeless people (Crisis, 2002)</p> <p>Health professionals described experiencing “feelings of failure or lack of achievement” when working with homeless people. Treating an individual with needs that are very different to those of their usual patient group, with little training could limit the provision of quality palliative care for this population. Inexperience in caring for people who are homeless may contribute to some of the attitudes health care professionals may hold towards homeless and may also contribute to their perceptions of stress and burden. (Hudson <i>et al.</i>, 2016)</p> <p>A Queen's Nursing Institute Homeless Health Initiative survey of homeless and non-homeless health specialists found that:</p> <ul style="list-style-type: none"> • Only 36% of all specialists and 8% of nonspecialist nurses had ever received any training on homelessness and health • 71% of non-Homeless Health Specialists were not confident in their ability to care for homeless people

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	<p>• 74% of all respondents (mainstream and specialist) are lone workers always, often or sometimes (Cabinet Office Social Exclusion Task Force, 2010)</p> <p>The negative attitude of other healthcare professionals can be a big hurdle for specialist clinicians working with these clients. Some staff are very judgemental and can be very discriminating against people who are homeless. This may be because of a lack of knowledge, understanding and skills needed to care for them. It is very important that all staff, including commissioners and managers, try to be accepting, nonjudgemental and appreciate the additional basic requirements.(Davis and Lovegrove, 2016)</p> <p>“Whilst access to secondary care is often seen as an area of less concern than primary care, and the main issues identified mainly relate to cultural sensitivity, the admission and length of stay patterns for members of socially excluded groups are showing an underlying problem. These patients are admitted more often, stay longer and are re-admitted more frequently. This highlights a number of issues further upstream: that these patients struggle to access other services, and therefore they turn to secondary care, and that they are sicker and do not receive the same quality of care as other patients, particularly when looking at discharge arrangements.”(Gill <i>et al.</i>, 2013b)</p> <p>“People who are living on the street...it’s much harder to access them. They don’t come to us and they don’t go anywhere for help until they’re so sick that they’re picked up by an ambulance” – Health care professional (Hudson <i>et al.</i>, 2016)</p>
<p>CMOC2: In a context where funding comes from multiple sources and where funding cycles are short and unreliable(C), staff members employed on short term contracts experience instability (M) and a lack of a feeling of job security (M) because they are in a series of continual contract renewals. The precarious sustainability of the services they work for lead to staff being asked to do more with less but job satisfaction is low (M) because services are permanently in a state of flux making it difficult to achieve good outcomes for people who need extra time and attention. Because they work for organisations with important missions they are expected to not care as much about pay and conditions as they care about helping. The outcome is difficulties hiring and retaining highly skilled and experienced staff members.(O)</p>	<p>Others felt that longer term funding contracts would offer staff more security of employment. The underlying fact is that we are government funded for cycle periods where funding contracts and notifications of outcomes continues to be delayed or left to the last minute where we may lose staffs due to uncertainty in ongoing funding or new contracts. (Medium non-metropolitan SHS provider) Job security - not having to tie employment to funding contracts. (Large nonmetropolitan SHS provider) (Cortis and Blaxland, 2017)</p> <p>While funding of homeless service through Department of Housing Section 10 funding was largely frozen during the period of austerity budgets, funding from the Department of Health/HSE experienced massive cuts, in some cases of over 40%. Severe reductions in HSE funding during the course of the recession placed a significant strain on the range of social care, mental health and physical health services which are essential in supporting people who are experiencing homelessness to exit to independent living. These cuts happened in parallel with a massive increase in the numbers of people who were homeless and an increase in the support needs of many groups. To a large extent, these cuts were absorbed through wage cuts and wage freezes for the staff in the voluntary sector. While the public sector is going through a process of pay restoration, staff in voluntary sector services, particularly those funded by the HSE, have seen little pay restoration and, frequently, no increments for several years. This is leading to recruitment problems in front-line services, just when need is greatest. (Focus Ireland, 2019)</p>

1 Non-profit staff is seen as motivated in distinctive ways when compared
2 to workers in other sectors through greater commitment, stronger non-
3 monetary orientation and greater degrees of altruism to serve others.
4 **The strong mission attachment among staff has led conventional**
5 **wisdom to assume that they are seen as willing to work for lower**
6 **salaries and fewer benefits** because they associate so strongly with the
7 organisational goals. **However, in a time of recession, non-profit**
8 **organisations are faced with the dilemma of cutting back on terms and**
9 **conditions, while at the same time relying more than ever on dedicated**
10 **staff to deal with increasing demand.**

11 "A lot of voluntary employers seem to think that because the social
12 purpose of the organisation is so laudable, that people ought not to
13 fuss about their salaries, their working conditions and other issues".
14 (Mahon, 2016)

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17 The current economic climate in the country was something which was
18 very prevalent in the minds of those interviewed, **in terms of increasing**
19 **needs of clients, further demands on services and negative impacts on**
20 **employment terms and conditions. Staff interviewed felt in some cases**
21 **that there was an expectation that staff could do more with less, and it**
22 **was assumed that pay and conditions were not as important to them.**
23 "Sometimes it's seen as, 'well you've a caring personality so just get on
24 with it'. Well it takes a bit more than a caring personality." (Interview D)
25 (Mahon, 2016)

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28 **Multiple budgets: People facing multiple needs require help from a**
29 **wide range of services, each funded from different budgets, held at**
30 **different levels.** Many agencies and commissioners view their role as
31 being for a particular group of individuals (usually with one severe
32 problem rather than multiple problems) and **allocate their resources**
33 **accordingly.** (Page and Hilbery, 2011)

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36 **All the case studies reported difficulties in recruiting staff, particularly**
37 **nurses, who were willing to work on the streets with people sleeping**
38 **rough. Depressed wages and short-term contracts related to the short-**
39 **term nature of funding through the Rough Sleeping Initiative made it**
40 **hard to attract workers with the right level and type of expertise to**
41 **make a real difference.** This impact was felt across sectors – the NHS,
42 the voluntary, community and social enterprise (VCSE) sector and local
43 authorities. (The King's Fund, 2020)

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46 **We also heard concerns about the sustainability of local funding, and**
47 **the instability caused by continual contract renewal,** as well as clashing
48 commissioning cycles of the clinical commissioning group and local
49 authorities. **Others reflected that the lack of stability from**
50 **commissioning created particular challenges: when services were**
51 **'forever in a state of flux' it was hard to achieve good outcomes for**
52 **people who need the space and time to recover from being homeless.**
53 (The King's Fund, 2020)

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<p>CMOC3: In a context where various parts of a health system operate in silos with narrowly defined goals (C), staff engage in organisation-centred thinking (M) and prioritise the goals of the health system over those of the patient. As a result, healthcare is organised around the needs of providers and the system not the person (O).</p>	<p>There is a limited evidence base on what works for these clients and, particularly in small specialist services, a lack of capacity and/or capability to evaluate effectiveness and impact</p> <ul style="list-style-type: none">• Services often lack the flexibility to respond to complex needs and chaotic lifestyles• There are few incentives to promote partnership working around clients with complex needs• It is easy for clients to fall between the gaps of different services leading to expensive unplanned care and clients ‘revolving’ through the system• There are gaps in and barriers to provision e.g. access to mental health services for those with dual diagnosis• There is an artificial divide between clinical and social models of care(Cabinet Office Social Exclusion Task Force, 2010) <p>Many of the practitioners noted the lack of joined up working between the numerous services that are involved in this client’s care as a result the care is often fragmented, reactive and can be disordered. For example the voluntary and non-statutory services, that support people who are homeless, have different agendas to the public health services in the way they care for the clients.(Davis and Lovegrove, 2016)</p> <p>... if the services are being funded by criminal justice to do say DRRs [Drug Rehabilitation Requirements] things like that, they’ve got targets to meet, so the actual individual has got no say at all because they’re there on the basis of “you’re here because you need to be here. We’re here to get our wages because we’ve been told by the government, courts, prisons, whatever to do what we need to do and actually your needs come second to what we’re setting out to do...” (Making Every Adult Matter Coalition, 2015)</p> <p>Commissioners are focused on outcomes which are narrow and specific to their sector. The approach of government departments filters down to local commissioners. This leads to them and the services they commission replicating the ‘silo culture’, focusing on a narrow range of outcomes rather than on the wider set of issues that contribute to multiple needs and exclusions. Joint commissioning has grown over the past decade but needs to go further, with a specific focus on this group. (Page and Hilbery, 2011)</p> <p>People with multiple needs want to be placed at the centre of their own support. However, people felt that their needs and aspirations were not always seen as a priority, and that services’ ability to provide support can be limited by the way they are designed and commissioned. People also felt that targets or conditions attached to funding meant that practitioners weren’t able to focus on the individual and decide what was best for them.(Making Every Adult Matter Coalition, 2015)</p> <p>The highly compartmentalised nature of health care systems can create a barrier to comprehensive care for PWID whose needs are complex and may span multiple domains, such as drug dependency treatment, acute health care (wounds and infections), psychiatry and hepatology. Hospital-based HCV treatment is often not ideally suited to PWID due to: geographic distance; referral-associated delays; inflexible appointment policies; lengthy waiting times; limited infrastructure and psychosocial supports; abstinence requirements; and prejudicial attitudes of some staff to PWID. Barriers to HCV treatment access for PWID include a lack</p>
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	<p>of continued engagement in medical care at the same site, with some PWID experiencing a lack of consistency in the management and monitoring of their HCV, and an accompanying confusion about HCV symptoms, test results and status. Navigating health care systems and unfamiliar hospital settings can be daunting for PWID, particularly for those who may have had previous negative experiences with providers. (Harris and Rhodes, 2013)</p> <p>This feeling was echoed by others who noted that GPs often wanted very brief consultations, and even then they were not listening to the health problems being explained to them. This was described as: 'A conveyer belt; just in one door and out the other ... get your prescription and of out the door with you.' Homeless participant 2 (O'Donnell <i>et al.</i>, 2016)</p>
<p>CMOC4: In a context where care is organised around the person, mechanisms of flexibility and personalisation are triggered allowing for the patient's specific needs to be met. Further mechanisms of service connectivity and making pathways understandable are triggered leading to the outcome of enhanced health system navigability. Also mechanisms of transparency and timeliness in the delivery of services enable the outcome of placing the responsibility for access on services themselves providing services in an opportunistic way using shared and transparent decision making to fit with the patient's particular wishes and needs at the time they arise.</p>	<p>Health care practitioners need to provide anticipatory guidance to reduce harm, prescribe medications at no or low cost, choose simple treatment regimens, and ease follow-up by offering walk-in appointments and care during evening hours. (Elliott <i>et al.</i>, 2013)</p> <p>A Pathway team is a simple intervention designed to break these cycles of failure and exclusion. A Pathway team is a specialist medically led multidisciplinary homeless team based in the hospital. It works with and alongside a patient's medical team to enhance the quality of care offered during their time in hospital. Teams include housing specialists working alongside clinicians so that before the patient leaves hospital a plan has been developed for their onward care. Teams are led by specialist GP's who bring their knowledge and skills of caring for homeless people in the community, as well as their expertise in prescription of methadone, personality disorder, and chronic disease management. Nurses manage team caseloads and bring vital clinical experience in homelessness, addictions and mental health, as well as practical knowledge of how to get things done in a hospital. Housing specialists bring their expertise to the bedside and help build links with voluntary sector services in the community. Some Pathway teams also include Care Navigators, paid staff who have personal experience of homelessness who focus on relationship building. Larger teams also include occupational therapists, social workers and mental health practitioners. (FEANTSA, 2019)</p> <p>Patients need a holistic approach, as they are not experiencing their needs in isolation. Mental health, substance misuse and general health issues occur simultaneously with social and environmental needs (Gill <i>et al.</i>, 2013b)</p> <p>Dedicated hospital pathway: it has been proven that a 'transversal' pathway, cutting across medical specialties has both a positive impact on the user experience and on the cost effectiveness of the care provided. (Gill <i>et al.</i>, 2013b)</p> <p>In three studies in which arrangements were made for same-day assessment, or participants were escorted, supported or incentivised to attend, uptake was 70% to 92%. The other three studies reported following the usual referral pathways, and uptake of the diagnostic pathway was lower, at 44–57%. (Hamilton, Tolfree and Mytton, 2018)</p>

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Suggestions for overcoming the complex needs and irregular lifestyles of homeless people in the delivery of palliative care included **taking a pragmatic, person-centered approach, setting goals that are realistic in the context of homelessness and removing discrimination and stigma from health care interactions.** (Hudson *et al.*, 2016)

One suggestion for achieving this was the use of peer mentors, or experts by experience who could accompany, mentor or advocate for homeless people as they try to access health care services. Previous work from Groundswell in the UK has found that the use of peer mentors can be effective in increasing the confidence and motivation of homeless people to access health care and in decreasing reliance on unplanned secondary care services. This may well be a model that could be extended for homeless people with advanced ill health. (Hudson *et al.*, 2016)

Multicomponent interventions with coordinated care are most effective and should include both health and nonhealth services. Partnership working and service design around the whole person is necessary to achieve the best results. (Luchenski *et al.*, 2018)

The following were key principles of services that were valued by participants: **provide ample time and patience to really listen; strive to develop trust and acceptance; provide supportive, unbiased, open, honest, and transparent services in inclusive spaces and places; encourage clients to accept personal responsibility for health; allow clients to take ownership, have choices, and participate in decisions; and above all, promote accessibility, fairness, and equality.**(Luchenski *et al.*, 2018)

Outreach models made it easier for young people to contact services, along with colocated services, and being able to drop in. Waiting times, opening hours (a lack of afterhours services), and eligibility for the service (including age and other intake criteria) were also noted as access barriers. Service availability for priority health conditions, perceived or actual, also affected access. (Robards *et al.*, 2018)

Navigation can be improved by reducing duplication, simplifying referral and appointment systems, strengthening services partnerships and linkages, and improving clarity about service roles and colocated services. Navigation support is also worthy of further exploration. (Robards *et al.*, 2018)

People who sleep rough are often characterised as ‘difficult to reach’. **However, staff working in this field were quick to challenge this label. They argued instead that local authorities and the NHS had a responsibility to design services that people who sleep rough could easily access.** They wanted to create opportunities to find and connect with the population who sleep rough.(The King’s Fund, 2020)

Leaders should be committed to collaboration – and to taking responsibility. Multi-agency working to tackle rough sleeping requires a commitment to collaboration across the system. But someone needs to take the lead, someone has to drive the strategy and someone has to have the authority to call people to account for delivering their individual responsibilities for improving outcomes for people sleeping rough.

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	<p>Particular attention needs to be paid to where responsibilities intersect or stop.(The King's Fund, 2020)</p> <p>Allow for patients to have "unscheduled" space to share their life stories and to acknowledge those stories A pragmatic approach by staff, facilitating flexible care solutions, such as the choice where to die and accepting that planned activities may not happen or need to be cancelled (Klop <i>et al.</i>, 2018)</p>
<p>CMOC 5: In a context where leadership emphasises a culture of inclusivity and explicitly commits to and promotes values of inclusivity and whole organisation policies and processes, services are provided in non-stigmatising, respectful, empathetic ways which builds trust between practitioners and patients. As a patient/provider relationship develops a positive feedback loop is created resulting in deepening trust which compounds and facilitates ongoing engagement which leads ultimately to ongoing appropriate access to health services at the right time and right place.</p>	<p>There is a wide range of health services nationally, but a far smaller pool of experienced nurses focused on holistic and integrated healthcare for people experiencing homelessness. This type of healthcare is time and labour intensive. It is vital that commissioners understand the complexities around engaging and building relationships and trust with people who are homeless as one of the crucial elements of delivering healthcare. (The Queen's Nursing Institute, 2018)</p> <p>Previous experience of services and positive perceptions of counselling affected health care seeking behaviour (French <i>et al.</i>, 2003) and the availability of a case manager and/or youth worker (Aviles & Helfrich, 2004). (Dawson and Jackson, 2013)</p> <p>In facilitating access to palliative care, building or rebuilding trust between homeless people and health care professionals was considered vital by homeless people and those supporting them. It was recognised though that this would not be easy:</p> <p style="padding-left: 40px;">"You have to earn it. You have to show that you want to do something for them [homeless people]. You have to be respectful and treat people with the same kind of treatment that you would want. It's often word of mouth. One client will say, "Listen, you can trust her" - Harm reduction outreach worker</p> <p>(Hudson <i>et al.</i>, 2016)</p> <p>Trustful and respectful relationships were also mentioned as a recommendation for delivering care; as well as attention for different domain of concerns of homeless people compared to healthcare providers, flexible programs and availability and support after death (Klop <i>et al.</i>, 2018)</p> <p>Efforts to enhance access need to account for the symbolic and social boundaries that marginalised citizens' experience, in addition to more obvious physical and institutional boundaries to accessing health services. (Klop <i>et al.</i>, 2018)</p> <p>Findings raised the importance of talking to somebody else who would listen, and be understanding. Trust and confidentiality were often considered paramount. Less explicit though perhaps equally important was that the person who was listening respected the boundaries set by those disclosing. (Lamb <i>et al.</i>, 2012)</p> <p>It is the responsibility of the health service provider to demonstrate culturally responsive leadership and build governance structures and environments that ensure health professionals are encouraged, expected and able to respond to the needs of Aboriginal and Torres Strait Islander people effectively. The processes and supportive</p>

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	<p>structures around health service delivery are equally as important as actual health outcome measures when determining the overall effectiveness of health service delivery. (McMillan, 2013)</p> <p>Leaders should work to gain political buy-in and support. The problem of rough sleeping evokes a range of views about how individuals should be treated. As a group, they may not be afforded the same sympathies as other groups of patients who also have poor health outcomes. Local leaders can play a crucial role in developing a shared narrative – and a common purpose. This framing can set powerful expectations about how the local area will respond to meet the needs of people experiencing rough sleeping. (The King’s Fund, 2020)</p> <p>The King’s Fund has published extensively on what makes for good system leadership, with distributed responsibilities and a culture of compassion and inclusion being key. Much of this work has focused on leadership across a health and care system and the importance of having a shared narrative, relationships built on trust, deep engagement of staff and communities and strong partnership working across organisational and professional boundaries.(The King’s Fund, 2020)</p>
<p>CMOC 6: In a context where healthcare services are delivered with a high degree flexibility in terms of appointment length, availability of walk-in appointments and self-referral, opportunistic add-on services such as vaccinations and screenings etc (C), practitioners and staff with expertise and experience (M) with the population group are able to anticipate (M) the common interventions that may be needed, to adapt (M) to the particular needs of the patient in front of them, and to use their expertise provide the treatment that is most needed in the current situation. As a result, patients’ needs are identified (O) this becomes a new context in which patients experience less frustration and fear (M) because they do not have to fit into a mould of a health service which is difficult to navigate. As a further outcome, patients feel seen and understood (O) which again becomes a new context activating engagement from both ultimately leading to ongoing appropriate access to services over a course of treatment or on an ongoing basis as needed. A cyclical nature of an ongoing and trusting relationship is established and reinforced over multiple interactions.</p>	<p>Health care practitioners need to provide anticipatory guidance to reduce harm, prescribe medications at no or low cost, choose simple treatment regimens, and ease follow-up by offering walk-in appointments and care during evening hours. Health care workers should administer applicable vaccines at any available opportunity. Ask all youth about their immunization status. Advise how to access ‘catch-up’ or new vaccines. Better yet, be prepared to provide them ‘on-the-spot’ in any office setting. Keep treatment regimens as simple and straightforward as possible. Make follow-up procedures easier by having some walk-in appointments and evening hours. (Elliott, 2013)</p> <p>Given the high rates of mental health diagnosis – including addictions – in SIY, at least an initial mental health screening should be integrated into various health care settings, focusing on suicide risk, self-harm and whether an individual is a risk to others. (Elliott <i>et al.</i>, 2013)</p> <p>Community based staff may also be in a position to advocate for homeless people in health care situations, due to their longer term relationship and thereby understanding of the individual’s needs; “Three or four of these clients since I’ve started working here have been recognized by the workers at [harm reduction program]. They know to call us and that we’ll follow through with helping with appointments and referrals to the [EoLC]” – Health care professional. (Hudson <i>et al.</i>, 2016)</p> <p>Findings raised the importance of talking to somebody else who would listen, and be understanding. Trust and confidentiality were often considered paramount. Less explicit though perhaps equally important was that the person who was listening respected the boundaries set by those disclosing. This was linked to the perception that health professionals were unable or unwilling to engage with the patients’ understanding of who they are and how they relate to the worlds they inhabit. This emerged as fundamental to people’s understanding of aetiology, the way they framed their problems, their decisions to seek help and the behaviours they adopted in living with chronic mental health issues. (Lamb <i>et al.</i>, 2012)</p>

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A free clinic in Los Angeles was identified by youth as a model for best practice. **Here youth appreciated staff that did not keep them waiting, listened and discussed health care options with them.** Homeless youth were not 'hassled' when they lost their patient identification cards and were reissued cards without a lecture. In addition their preference for healthcare delivery was accommodated at sites already known to and frequented by homeless youth (such as drop-in shelters). (Lamb *et al.*, 2012)

The ability to develop an ongoing personal connection involved rapport with service providers, continuity of therapeutic relationships, and a usual source of care. (Robards *et al.*, 2018)

Other participants mentioned having transport to clinics, and attending services that offered a comprehensive approach to healthcare for their needs. One example mentioned a location where medical and harm reduction services were co-located:

'It's easy to get to because they [key workers] come and collect you, and bring you to A, and get you back here. Because that's a big part of stopping you from getting there as well as the, is trying to get there so you know what I mean. It's easier to be picked up and brought ... so you have your [addiction] counselling or whatever, the doctor there and your one to ones [needle exchange] all in the one.' Drug using participant 2

The roles of peer advocates and key workers serve as important facilitators to reengagement with the primary healthcare system. It is not surprising then that the homeless group, drug users, sex workers and Traveller participants all mentioned these types of support as priorities. (O'Donnell *et al.*, 2016)

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Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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Contexts and mechanisms that promote access to healthcare for populations experiencing homelessness: a realist review

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Abstract

Objective

The objective of this study was to identify and understand the health system contexts and mechanisms that allow for homeless populations to access appropriate healthcare when needed.

Design

A realist review.

Data sources

Ovid MEDLINE, embase.com, CINAHL, ASSIA and grey literature until April 2019.

Eligibility criteria for selecting studies

The purpose of the review was to identify health system patterns which enable access to healthcare for people who experience homelessness. Peer reviewed articles were identified through a systematic search, grey literature searching, citation tracking and expert recommendations. Studies meeting the inclusion criteria were assessed for rigour and relevance and coded to identify data relating to contexts, mechanisms and/or outcomes.

Analysis

Inductive and deductive coding was used to generate Context-Mechanism-Outcome configurations which were refined and then used to build several iterations of the overarching programme theory.

Results

Systematic searching identified 330 review articles, of which 24 were included. An additional 11 grey literature and primary sources were identified through citation tracking and expert recommendation. Additional purposive searching of grey literature yielded 50 records of which 12 were included for a total of 47 included sources. The analysis found that healthcare access for populations experiencing homelessness is improved when services are coordinated and delivered in a way that is organised around the person with a high degree of flexibility and a culture that rejects stigma generating trusting relationships between patients and staff/practitioners. Health systems should provide long-term, dependable funding for services to ensure sustainability and staff retention.

Conclusions

With homelessness on the rise internationally health care systems should focus on high level factors such as funding stability, building inclusive cultures and setting goals which encourage and support staff to provide flexible, timely and connected services to improve access.

Article summary

Strengths and limitations

- This is the first realist review of access to healthcare for homeless populations
- The review uncovered modifiable contexts and provides important lessons for policy makers working in this area
- The search strategy was focused on review articles to identify high-level themes meaning we may have missed relevant sources as well as important information about contextual factors

and/or the nature of causative mechanisms in the included literature under review. However, iterative searching was done and an expert panel was engaged in the analysis to offset these potential weaknesses.

Background

Homelessness is an extreme expression of social exclusion, experienced by people lacking a stable and secure place to live. According to the European Typology of Homelessness and Housing Exclusion (ETHOS) homelessness occurs in four ways: rooflessness (sleeping rough, without any shelter); houselessness (having somewhere to sleep but in a temporary shelter or institution); living in insecure housing (eg insecure tenancies, threat of eviction, violence); living in inadequate housing (overcrowding, unfit housing, caravans on illegal campsites).[1] There are various subgroups within the homeless population, including families and single adults. Some single adults have children but often their children do not live with them.[2]

Populations experiencing homelessness along the full spectrum set out above face both increased difficulty accessing healthcare and poorer outcomes than housed populations, with chronically homeless individuals having worse clinical outcomes than those experiencing intermittent homelessness or as a one-off crisis.[3–5] Populations experiencing homelessness access primary care less than housed populations and utilise costly unscheduled acute healthcare at a higher rate than their housed peers.[5–7]

Accessing healthcare is complex because it happens along a continuum of need, time and access points, and is delivered in open systems, dependent on many interacting variables on both the supply side (availability, hours, location, staffing, resources, price, etc) and on the demand side (knowledge of health need, availability of the needed time and resources, distance to service location, psychological factors, disposable income, etc). The settings and constructs in which these variables interact are themselves complex (eg hierarchical, goal-driven cultures in healthcare). As a result, inputs into a health system act in non-linear ways and at their intersection(s), a variety of intended and unintended outcomes (patients accessing the right care, or inadequate care, or not accessing care at all, accessing part of a full course of treatment; patients experiencing stigma or fear or other indirect outcomes; practitioners experiencing stress or professional insecurities, etc) emerge as more than simply the sum of their parts.[8–12]

In this review we are primarily interested in understanding the health system factors that impact access to healthcare. We conceptualise health system factors and access using the World Health Organisation (WHO) building blocks framework [13] including service delivery, health workforce, and leadership/governance, and Aday and Andersen's Framework for the Study of Access to Medical Care [12] with health system factors organised under the categories of 'health policy' and 'characteristics of health delivery system'.

Supply side factors describe the full set of inputs that go into a health system designed to meet the needs of full populations, as much as possible. Meeting the needs of the majority may not adequately meet the needs of groups experiencing social exclusion. In this study we explore how, why, in what circumstances and to what extent these inputs impact healthcare accessibility for the population of interest: single adults experiencing long term homelessness and complex needs.

Such homeless single adults with complex needs may experience any of the types of homelessness outlined according to ETHOS above. We use the term 'populations experiencing homelessness' to

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3 refer to this group in this article. The lack of housing in and of itself is not the only driver of poor
4 access to healthcare and poor health outcomes in this population. Homelessness is a marker for and
5 is associated with 'tri-morbidity' - the combination of physical ill-health, mental ill-health, and
6 substance misuse.[14] In addition to lacking stable housing, populations experiencing homelessness
7 often face a host of health problems and addiction behaviours associated with complex life
8 circumstances and events including early childhood trauma, having been in care, relationship
9 breakdowns, poverty, lack of employment and more.[2,15] While these are common experiences, it
10 is important to stress that they happen to varying degrees and sometimes not at all.[15]

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13 The majority of research exploring access to healthcare for homeless populations has focused on
14 individual level factors and particularly on why, whether and how individuals experiencing
15 homelessness do or do not access healthcare [3,16–24]. A focus on individual level factors is
16 illuminating but without understanding and balancing this with health system factors there is a risk
17 that responsibility for accessing services is inappropriately placed with the individual.[25,26] This
18 review synthesises health system factors that determine healthcare accessibility in order to explore
19 how whole systems can make appropriate healthcare services accessible to populations experiencing
20 homelessness and complex needs.

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23 In this study, we used the WHO's definition of a 'health system': '(i) all the activities whose primary
24 purpose is to promote, restore and/or maintain health; (ii) the people, institutions and resources,
25 arranged together in accordance with established policies, to improve the health of the population
26 they serve, while responding to people's legitimate expectations and protecting them against the
27 cost of ill-health through a variety of activities whose primary intent is to improve health'.[27]

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30 For this study we used realist review in the school of Pawson and Tilley [28,29] because it is a
31 methods-neutral approach designed for examining complex interventions or topics by seeking to
32 identify unseen mechanisms which produce a given outcome as well as the contexts in which they
33 are triggered. If activated, mechanisms produce intended and unintended outcomes. Analysis takes
34 place by explaining the causal relationship between contexts, mechanisms and outcomes in the
35 construction of Context-Mechanism-Outcome configurations (CMOCs) (see glossary of terms in
36 supplementary file). We chose to focus on review articles to enable a broader health system lens
37 since an initial scope of the literature showed a substantial body of published literature which would
38 have been unmanageable. Subsequent rounds of searching were undertaken to ensure key literature
39 was not missed.

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42 A review of health system factors which improve access to health care for populations experiencing
43 homelessness is needed because an individual level analysis does not fully explain systemic causes of
44 inadequate access to essential health services. This review sought to answer the following question:

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 - How, why, for whom, in what circumstances and to what extent can healthcare systems
48 improve access to healthcare for populations experiencing long-term homelessness?

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Methods

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Realist research is a theory-driven approach which seeks to understand causal mechanisms in
complex areas of study by asking how, why, for whom, in what circumstances and to what extent
something works (or does not work). A realist review approach was chosen because access to
healthcare is an open-ended, complex area of study with many entry and exit points for service
users and one where factors interact with each other creating outcomes (eg a homeless patient

leaving the emergency department (ED) without being seen) that are more than the sum of inputs (eg ED is nominally accessible because it is always physically open but the quality of access is impacted by many potential factor eg a homeless patient's experiences of stigma). We chose to conduct the study as a review of reviews and grey literature as a means of efficiency because we were seeking to understand high-level health system features rather than the detail of individual interventions, and because pilot searching suggested that the body of primary studies analysing healthcare access for populations experiencing homelessness was too large for the capacity of the team. Using a realist review in this study contributes to the current knowledge base by uncovering causal mechanisms that are at play at the health systems level but which are not measurable and may have been missed or not fully explained in other studies.

The review followed an internal team study protocol based on Pawson's five iterative stages: 1. locating existing theories, 2. searching for evidence, 3. selecting articles, 4. extracting and organising data and 5. synthesising the evidence and drawing conclusions.[28] The phases of the review are illustrated below in fig 1.

[Insert Figure 1]

Initial programme theory

A rough initial programme theory (IPT) (see supplementary file) was developed based on informal reading and discussions with content experts in the area of homeless health. It listed potentially important contexts (eg long-term homelessness, regular source of care, competing subsistence needs, knowledge of symptoms and when to seek care) and mechanisms (eg stigma and discrimination, power dynamic between provider and patient, mistrust, fear, feelings of shame/low self-esteem) affecting the outcome of healthcare access for populations experiencing homelessness. The IPT reflected our limited knowledge specifically regarding high-level health systems features that impact healthcare access for populations experiencing homelessness at the outset of the project. It was a way to get into the topic and formed the starting point for shared team knowledge but it did not turn out to be very useful in directing the further steps in the research including searching and coding.

Searching

Iterative searching took place in three rounds. First a systematic search of relevant published peer-reviewed review articles of any method took place. We did not use the IPT in guiding this search as it did not point us in the direction of high-level health system features' impact on healthcare access for homeless populations. Rather, pilot searching suggested that including a number of search terms from the IPT yielded many unrelated articles. Instead, a subject librarian helped design the search strategy focusing on two broad thematic clusters: homelessness and healthcare access. Further pilot searching was undertaken and final search terms were agreed. A formal search of four electronic databases (Ovid MEDLINE, embase.com, CINAHL, ASSIA) was undertaken in April 2019. Results from each search were exported to Endnote X9 and deduplicated automatically and manually. Full search terms can be found in supplementary file.

Additional searching was later undertaken in two rounds. First, citation tracking was used to locate important primary studies included in several of the reviews. And at this stage, further peer-reviewed and grey literature sources were included as recommended by the expert panel. Second, a search was conducted to identify additional relevant grey literature sources via the internet and websites of organisations working on homeless health. These sources were selected to shed light on

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CMOCs that were not fully developed using the data resulting from the systematic search of the peer-reviewed literature and to build additional CMOCs to more fully answer the research question.

Selection and appraisal of documents

Studies were included based on their relevance to the review question, ie if they provided information about access to healthcare for homeless populations and would contribute to the development and refinement of programme theory. Only studies in English were included. RS screened all titles and abstracts and SB independently screened a random 10% sample. During the screening phase an initial evaluation of rigour and relevance (see glossary in supplementary file for definitions) was done and as was the case at later stages when additional literature was collected. See full search in fig 2.

Data extraction and analysis

After the screening of the peer-reviewed literature was completed, a summary table was created listing key features of each study (table 1).

The first round of coding took place in NVivo 12 of the peer-reviewed articles from the systematic search starting with the articles deemed most useful regarding rigour, relevance and trustworthiness (eg articles that had rich data and had adhered to their chosen research methodology), as they were expected to best inform the development of CMOCs and programme theory. Coding was first done inductively with useful pieces of data assigned to thematic codes created by the researcher one by one through the coding process. Codes were then organised into groups depending on whether they were related to the individual seeking care, the healthcare practitioner and/or programme providing care or the health service/ health system in which that healthcare is organised. Labels of context, mechanism and outcome were also assigned when possible and at times not assigned if a code did not have a clear placement in a potential configuration. The rest of the peer-reviewed articles were coded deductively using the codes already created with more codes inductively added as needed.

Using a realist logic of analysis, CMOCs were then created from data in the review articles included after the first round of searching, drawing from several sources to construct each CMOC. The purpose of the analysis was to identify general patterns of outcomes which can be expected to occur when mechanisms are activated in the right context, with some regularity (also called ‘demi-regularities’). In other words, the analysis identified outcomes which regularly, but not always and not in every case, result from the causal processes described in each CMOC discussed below

The crafting of CMOCs took place by sorting codes from NVivo according to whether they mainly belonged to contextual factors, represented an outcome or whether they were mechanistic in nature. We then, through constant consultation of with the literature, linked contexts, mechanisms and outcomes that fit together to explain underlying causation. We wrote a list of resulting CMOCs that all demonstrated a causative relationship affecting healthcare access for populations experiencing homelessness, as described in the data. This list of CMOCs was written in a Word document with its supporting data excerpts listed below. Iterative cycles of analysis then took place to refine, challenge and change the CMOCs with the data. Through the analysis process, some CMOCs were eliminated and some were combined if they were similar to others.

The CMOCs generated from the data extracted from the peer-reviewed literature were further refined after a formal expert panel meeting with representation by members of an inclusion health team in a local hospital (consultant doctor and social worker), the director of policy for a national homeless charity, an inclusion health GP, a representative for the Health Service Executive, and two

academics who work in the areas of homeless healthcare and health policy. The expert panel discussion led to the strengthening of the research in several key ways with the following two being the most important: First, a discussion of the diversity within populations experiencing homelessness resulted in refining the focus of CMOCs to outcomes relating to the specific homeless sub-population of single adults experiencing long-term homelessness and complex needs. Second, discussions revealed that sufficient data about a number of important health system features which impact access, eg financing, governance, organisational culture, policies and strategies, were missing from the peer-reviewed literature sources and various suggestions were made for sources that would inform that shortcoming.

To attempt to more fully explain high level health system features which impact access additional data were collected then through citation tracking and through additional searching of grey literature sources. The results of these searches were screened and then coded in a similar way to the peer-reviewed literature. Initial codes were developed inductively from the first several sources and then applied deductively with new codes created as needed as the remainder of the sources were coded. Labels of context, mechanism and outcome were assigned when possible and at times not assigned if a code did not have a clear placement. Contexts, mechanisms and outcomes are not static labels but can change in relation to each other eg something can be a context in one instance but a mechanism in another and an outcome can become a context for another CMOC depending on its explanatory role in the given configuration.[30] Codes were then organised into groups depending on whether they were related to the individual seeking care, the healthcare provider and/or programme providing care or the health service/ health system in which that healthcare is organised. These new data were then used to create more CMOCs using the new data combined with those collected from the first round of searching, and to further refine the existing set created from peer-review data where useful.

Patient and public involvement

No patients or members of the public were involved in this research.

Results

Search results and study characteristics

In total, 330 titles and abstracts were screened and 37 published review articles were deemed to meet the inclusion criteria and these then underwent full-text review. Next, during a close reading of each full article, it was determined that 13 of the 37 articles that were initially included in the analysis did not fully meet relevance and/or rigour standards and they were thus excluded leaving a total of 24 articles for inclusion (see table 1). All studies included in the reviews were from high income countries, the majority having focused on the USA, Australia and the UK.

An additional 23 primary peer-reviewed articles and grey literature sources were identified through citation tracking, from expert recommendations and through a subsequent purposive search of the grey literature via Google and the websites of relevant organisations. The majority of these were from the UK.

[Insert figure 2]

Number	Authors	Year	Title	Countries	Topic/intervention	Aims of review

1	Aidala, A; Wilson, M; Shubert, V; Gogolishvili, D; Globerman, J; Rueda, S; Bozack, A; Caban, M; Rourke, S.	2016	Housing Status, Medical Care, and Health Outcomes Among People Living With HIV/AIDS: A Systematic Review	United States, France, Spain, Italy, Finland and South Korea	HIV treatment	To review the literature on the role of housing status for medical care and health outcomes among people with HIV infection
2	Brown, A; Rice, S; Rickwood, D; Parker, A.	2016	Systematic review of barriers and facilitators to accessing and engaging with mental health care among at-risk young people	Australia, UK, USA, Canada	Mental health services	To review the literature on the barriers and facilitators to accessing and engaging with mental health care among young people from potentially disadvantaged groups.
3	Crock, E.	2016	Access to healthcare services for people living with HIV experiencing homelessness – a literature review	USA, Canada, Australia	Community nursing	To review the literature on strategies that enhance the ability of people living with HIV who are homeless to access health care services, in particular community nursing services.
4	Dawson, A; Jackson, D.	2013	The primary health care service experiences and needs of homeless youth: A narrative synthesis of current evidence	USA, Australia	Primary healthcare	To review the literature on access to primary healthcare services for homeless youth
5	Elliott, A.	2013	Meeting the health care needs of street-involved youth	Canada, USA	Full spectrum healthcare	To reviews reasons why youth turn to the street, risks of the ‘street economy’ and barriers to health care.
6	Hamilton, K; Tolfree, R; Mytton, J.	2018	A systematic review of active case-finding strategies for tuberculosis in homeless populations	USA, UK, France, Germany, Switzerland, Australia, Poland, Spain	Tuberculosis	To review the literature to determine the effectiveness of active case finding for TB control, and identify strategies to improve uptake of screening and the diagnostic pathway in homeless populations in low- and medium-burden settings.
7	Harris, M; Rhodes, T.	2013	Hepatitis C treatment access and uptake for people who inject drugs: a review mapping the role of social factors	Not specified	Hepatitis C treatment	To review the literature on barriers to hepatitis C treatment access, uptake and completion for people who inject drugs.
8	Hudson, B; Flemming, K; Shulman, C; Candy, B.	2016	Challenges to access and provision of palliative care for people who are homeless: a systematic review of qualitative research	USA, Canada, Sweden, UK, Australia	Palliative care	To review published qualitative research exploring challenges to palliative care access and provision.

9	Islam, M; Conigrave, KM.	2007	Assessing the role of syringe dispensing machines and mobile van outlets in reaching hard-to-reach and high-risk groups of injecting drug users (IDUs): A review	Norway, the Netherlands, Italy, Australia, Germany, Switzerland, France, Spain, USA, Canada, Russia, Bulgaria, Lithuania	Needle exchange	To review the effectiveness of syringe dispensing machines and mobile van or bus-based needle syringe programmes in making services accessible to hard-to-reach and high-risk groups of IDUs.
10	John, W; Law, K.	2011	Addressing the health needs of the homeless	UK and other not specified	Nursing	To review the literature on the health needs of homeless people and what role can nurses play in addressing homeless people's health needs
11	Jones, C; Perera, A; Chow, M; Ho, I; Nguyen, J; Davachi, S.	2009	Cardiovascular disease risk among the poor and homeless - What we know so far	Not specified	Cardiovascular care	To review the literature detailing the relationships between poverty, homelessness and cardiovascular disease.
12	Kaduszkiewicz, H; Bochon, B; van den Bussche, H; Hansmann-Wiest, J; van der Leeden, C.	2017	The Medical Treatment of Homeless People	Not specified	Primary and inpatient hospital care	Review the medical treatment of homeless people in Germany
13	Klop, H; de Veer, A; van Dongen, S; Francke, A; Rietjens, J; Onwuteaka-Philipsen, B.	2018	Palliative care for homeless people: a systematic review of the concerns, care needs and preferences, and the barriers and facilitators for providing palliative care	USA, Canada, Sweden, UK, Australia, Ireland	Palliative care	To review the evidence of the concerns and palliative healthcare needs for homeless people, as well as the conditions for delivering good quality palliative care for the target group.
14	Lamb, J; Bower, P; Rogers, A; Dowrick, C; Gask, L.	2012	Access to mental health in primary care: a qualitative meta-synthesis of evidence from the experience of people from 'hard to reach' groups	UK, Finland, Switzerland	Mental health treatment in primary care	To review understand barriers to mental health treatment for eight socially excluded groups incl homeless.
15	Luchenski, S; Maguire, N; Aldridge, R; Hayward, A; Story, A; Perri, P; Withers, J; Clint, S; Fitzpatrick, S; Hewett, N.	2018	What works in inclusion health: overview of effective interventions for marginalised and excluded populations	Not specified	Healthcare, social care, housing	To review effective interventions that directly affect health (eg, pharmacology, counselling, screening, prevention) or the wider determinants of health (eg, housing, social support, training and education, employment, crime, and recidivism).

16	Lutge, E; Wiysonge, C; Knight, S; Sinclair, D; Volmink, J.	2015	Incentives and enablers to improve adherence in tuberculosis	USA, Timor-Leste, South Africa	Tuberculosis	To review the effects of material incentives and enablers given to patients undergoing diagnostic testing for TB, or receiving drug therapy to prevent or cure TB.
17	Martens, W.	2009	Vulnerable categories of homeless patients in Western societies: Experience serious barriers to health care access	Not specified	Primary care, mental health care, addiction treatment	To review healthcare access for especially vulnerable categories of homeless persons.
18	Robards, F; Kang, M; Usherwood, T; Sanci, L.	2018	How Marginalized Young People Access, Engage With, and Navigate Health-Care Systems in the Digital Age: Systematic Review	UK, USA, Australia, Canada, New Zealand, and Portugal	Full spectrum healthcare	To review what is known about marginalized young people's access to, engagement with, and navigation of the health system in the digital age.
19	Sumalinog, R; Harrington, K; Dosani, N; Hwang, S.	2017	Advance care planning, palliative care, and end-of-life care interventions for homeless people: A systematic review	USA, Canada, Sweden	Shelter based palliative care programme, completion of advance directive, professional support home services.	To review the evidence surrounding advance care planning, palliative care, and end-of-life care interventions for homeless persons.
20	Tankimovich, M.	2013	Barriers to and interventions for improved tuberculosis detection and treatment among homeless and immigrant populations: a literature review	USA, UK, Spain, Israel, the Netherlands, Ethiopia	TB detection and treatment	To review barriers to the detection and treatment of TB in immigrant and homeless populations in the United States and to review effective interventions for improved detection and treatment.
21	Wallace, C; Farmer, J; McCosker, A.	2018	Community boundary spanners as an addition to the health workforce to reach marginalised people: a scoping review of the literature	USA, UK, the Netherlands, Australia, New Zealand.	Lay person patient navigators/peer workers/ link workers.	To review the literature on the role played, in health service delivery and health literacy development in high-income countries, by community-based lay persons
22	Weber, J; Lee, R; Martsolf, D.	2017	Understanding the health of veterans who are homeless: A review of the literature	USA	Public health nursing	To review the literature of what is known about the health of homeless veterans.

23	White, B; Logan, A; Magwood, G.	2016	Access to Diabetes Care for Populations Experiencing Homelessness: an Integrated Review	USA and Canada	Diabetes care	To review the literature to identify barriers and facilitators to accessing diabetes care and managing diabetes for homeless populations.
24	White, B; Newman, S.	2015	Access to primary care services among the homeless: a synthesis of the literature using the equity of access to medical care framework	USA	Primary care	To review the literature to identify barriers and facilitators to primary care access among the homeless.

Table 1 Summary table of included studies from systematic peer-review search

Focus of the review

Initial analysis resulted in two broad conceptual sets of findings: one related to how services are organised and delivered and another related to the process of training and the development of the right professional skills, attitude and awareness that allows staff to best provide such services. Based on team discussions and with the recognition that we would not be able to fully explore all findings, we decided to focus on the topics most relevant to the research question. The findings around service delivery and organisation were chosen as the focus for the next stage of the review.

Programme theories and CMOCs

Using the data collected from the three rounds of literature searching, a total of 73 individual CMOCs were generated through several rounds of analysis over the course of several months. There was overlap among some of the CMOCs but it was important to capture and articulate the relationship between each distinct context, mechanism and outcome and to interrogate whether they shared a causal relationship before combining some together and rejecting others.

Once that analysis was completed, we grouped together similar CMOCs into the six consolidated CMOCs as described in detail in the narrative below.

In the CMOCs below, while the contexts operate on a health system or service level, mechanisms are activated within individuals (eg patients, healthcare practitioners, staff) which makes intuitive sense as a mechanism 'involves the interaction between particular inputs (or resources) and human reasoning, which produces a particular outcome (or not)'. [31]

CMOC 1: Resourcing

The first consolidated CMOC (fig 3) explores contexts where mainstream healthcare practitioners and staff (in hospital and primary care settings) are expected to treat a high need patient group (long-term homeless populations with complex needs) but are not provided adequate resources and incentives (eg extra funding for longer appointments and more coordination) while also having inadequate expertise in the particular needs and life experiences of this group. [32–35] In these contexts, practitioners and staff feel that servicing patients experiencing homelessness is professionally demanding and challenging. They experience feelings of professional inadequacy and lack of confidence and display an unwelcoming attitude toward patients. [17,32–34,36–40] As a result, patients' experience of the care environment is a negative one which causes them to choose

not to seek care at an appropriate time (eg seeking care from a GP before a condition gets worse and acute care is needed).[17,32,37,41–43]

The outcome of not seeking care when the care environment is not welcoming becomes a new context which leaves patients instead to seek care only when the need is emergent and out of desperation, and at a later stage than ideal and at a setting that is readily available (such as the ED).[17,37,39,41,44] This results in exacerbated need leading to more complex, intensive and costly care which ultimately generates poorer health outcomes.[37,41,45]

[Insert figure 3]

CMOC 2: Funding stability and source

CMOC2 (fig 4) shows that in a context where funding for health services comes from multiple sources and where funding cycles are short and unreliable, eg grant funding for specific purposes with a short duration,[38,41,43,46] staff members employed on short term contracts experience a lack of a sense of stability and sustainability because they are in a series of continual contract renewals and do not have job security and, especially in periods of austerity, may experience wage cuts and wage freezes. The precarious sustainability of the services they work for lead to staff being asked to do more with less. Work tasks change when pilot schemes and new initiatives bring additional goals tied to new funding while staff still have to complete existing tasks. Additionally, individuals working in these services are often seen by their managers as being naturally caring people who are intrinsically motivated to ‘do good’ and who do not need adequate pay and conditions because of the perception that their motivation lies elsewhere.[35,43,47–49] Frequent changes make it difficult to achieve good outcomes for people who need extra time and attention and for whom forming trusting relationships with practitioners is particularly important in accessing care, as is explored below in CMOC5. The outcome is difficulties hiring and retaining highly skilled and experienced staff members.[35,43,47–49]

[Insert figure 4]

CMOC 3: Health system fragmentation and goals

CMOC3 (fig 5) shows that in a context where various parts of a fragmented health system operate in silos with a narrowly defined scope of goals,[37,38,41,43,50] staff engage in organisation-centred thinking and prioritise the goals of the health system even when they are not suitable for responding to the complex needs of homeless patients whose care should be organised across a number of domains. Staff often lack knowledge of how to best meet the needs of patients experiencing homelessness and complex needs while health system goals and targets are more clearly defined as part of professional structures and workstreams.[37,38,50] Staff and practitioners are not incentivised or empowered to take responsibility for creating holistic, coordinated and flexible ways of organising care around a patient’s needs and wishes because they are instead asked to meet narrowly defined targets tied to funding and the expectations of commissioners. As a result, healthcare is organised around explicit and implicit health system goals not the needs or goals of the person.[18,37,38,41,50,51]

[Insert figure 5]

CMOC 4: Care organised around the person

In contrast to CMOC 3, CMOC 4 (fig 6) shows that when care is organised around the person and their needs, resulting outcomes produce conditions that promote healthcare accessibility. In this

context, the mechanism of flexibility and personalisation is triggered, allowing patients to feel that their particular needs are understood and met.[25,35,39,50,52–55]

Additionally, health system navigability is enhanced through having coordinated and co-located care,[7,35,39,40,53,56–58] through having clear and intuitive patient pathways managed by staff and practitioners who create connectivity between services by bringing patients along to any subsequent treatment, scan, consultation etc in the given patient pathway,[18,39,53,59,60] and through accompanying patients either by link workers or peer advocates.[25,39,60–64] Having this kind of support helps patients by providing extra motivation and confidence in seeking health services when needed and navigating institutional locations such as hospitals and clinics, and negotiating patient pathways which may be complex.[39,41,53,60] Peer advocates have a unique understanding of the experience the patient is having and have the ability to meet patients where they are and provide emotional and practical support.[39,44,58,61–63]

And finally, when care is organised around the person it is inherently respectful of other demands on their time and their particular goals (or lack thereof) for their own health. Services are characterised by timeliness and openness. For example, if as many services as possible are carried out in one clinical encounter and a course of treatment is chosen through shared and transparent decision making, then responsibility is placed on the service to make itself fit with the patient's life circumstances and to share knowledge and decision making to promote initial accessibility and beyond.[25,39,57,59–62,65]

[Insert figure 6]

CMOC 5: Inclusive culture and leadership

CMOC 5 (fig 7) examines the importance of culture and leadership in creating inclusive health system contexts. Through the dominant culture the value assigned to people from stigmatised groups contributes to their experience of poorer care because of prejudice and stereotypes commonly held about them. Populations experiencing homelessness face stigma when engaging with all areas of society including healthcare settings.[25,52,62,66,67] Creating the right cultural context depends on leadership and management through explicit commitments to values of inclusivity and whole organisation policies and processes.[33,37,41,43,51,68–70]

In the articles reviewed, stigma is a crucial mechanism which keeps individuals experiencing homelessness from accessing healthcare [17,18,25,35,39,58,61,71] (the impact of stigma on the patient experience is explored above in CMOC1). On the other hand, when individuals experience an environment that is non-stigmatising, respectful, empathetic, accepting, sensitive and understanding of their life experience and particular needs, trust develops between the patient and the practitioner(s) and a positive feedback loop is created leading to a productive patient/practitioner relationship developing over time. Still operating in a context which explicitly values and promotes inclusivity, trust becomes a reinforcing mechanism whereby deepening trust facilitates ongoing engagement which leads ultimately to ongoing appropriate access to health services at the right time and right place.[39,40,52–54,57,61–63]

[Insert figure 7]

CMOC 6: Flexible healthcare delivery

CMOC 6 (fig 8) explores the context of flexibility in healthcare services delivery in terms of appointment length, availability of walk-in appointments and self-referral, opportunistic add-on services such as vaccinations and screenings, allowing dogs, trauma-informed practice and

understanding of behaviours that trauma can result in, and more.[25,32,43,46,52,53,56,57,61,72–75]) Flexibility is also a mechanism in CMOC 4, while here it is acting as a context characterising the approach to and design of care delivery.

In this context, practitioners and staff with expertise and experience with the population group are able to anticipate the common interventions that may be needed, to adapt to the particular needs of the patient in front of them, and to use their expertise to provide the treatment that is most needed in the current situation. Communication is tailored to the patient with awareness of potential literacy issues common in the population.[39,40,44,54,59,60,62,65,76] This stands in contrast to what happens when services do not have proper resources and when providers and staff do not have expertise and experience as explored in CMOC1.

In the context of flexible healthcare delivery, patients’ needs are identified and if met in the manner described in CMOC4, this experience forms a new context. In this new context (‘needs identified’), experiences of lowered frustration and fear is engendered in patients because they do not have to fit into a mould of a health service which is difficult to navigate and not likely designed with them in mind.[40,44,52,56,57,61] Resulting from that, patients feel seen and understood which becomes a new context (‘patients feel seen and understood’) in which ongoing engagement from both sides is possible and pathways can be created with high levels of flexibility and assistance.[44,52–54,61] Patients are able to follow these peer, key-worker and/or health staff assisted pathways and ultimately this leads to ongoing appropriate access to services over a course of treatment or on an ongoing basis as needed. A cyclical nature of an ongoing and trusting relationship is established and reinforced over multiple interactions.[25,39,44,61–63,72,77]

[Insert figure 8]

Full programme theory

The overarching programme theory synthesising the full set of findings from this review (fig 9), shows that a set of interlinking factors must all be in place for healthcare access to be successful for populations experiencing homelessness.

It shows that the combination of resourcing, funding stability, health system fragmentation and goals, the degree to which care is organised around the person, the degree to which leadership promotes an inclusive culture, and the flexibility of healthcare delivery set the stage for accessibility.

When resources (funding, expertise, experience of patient group) are adequate, when funding cycles are long and stable, when there is a low degree of fragmentation and health service goals support integrated working, when healthcare is organised around the patient and delivered flexibly, and when services are provided in an inclusive culture championed by leadership then services can be provided in the way explained in the blue and green boxes. That is that healthcare services are organised and provided (as explained in the blue boxes) in a manner that is: connected to and collaborating with other practitioners and services; personalised to the needs and desires of the patient; holistic in looking at the patient as a full person; timely in that services are available when needed and take into account the patient’s lifestyle and other commitments; expert-led where staff and practitioners have adequate expertise and experience of populations experiencing homelessness, allowing them to anticipate and opportunistically act on multiple healthcare needs in one encounter; intuitive in that patients can understand and easily follow patient pathways, with staff/peer-advocate assistance as needed; and transparent in that confidentiality is clear and decisions are made between patient and provider in an open and honest way based on patient desires and not the needs of practitioners. Additionally in an inclusive culture with flexibility and

autonomy allowed, staff with the right experience and expertise are enabled to project an attitude of non-judgement, acceptance and empathy as described in the green boxes.

On the other hand, when those system features are not in place or not fully in place, the patient experience of health services is impacted negatively. Eg when health services are provided in a fragmented way, it is not possible to provide timely care because each service operates on their own schedule and each step on a patient pathway depends on a referral from the last.

[Insert figure 9]

Discussion

Statement of principal findings

Health systems influence healthcare accessibility for populations experiencing homelessness in a number of ways as described in the six CMOCs explained above. The analysis has shown the following:

1. When healthcare practitioners have limited experience, training and resources to meet the particular needs of populations experiencing homelessness, they feel professionally inadequate and project unwelcoming attitudes. As a result, patients have a poor experience in the care environment and choose not to seek care until they experience their situation as desperate, resulting in exacerbated need and poorer outcomes to follow.
2. When health services have short funding cycles and diverse sources of income, staff and practitioners perceive their employment situation to be unstable and unsustainable and as a result hiring and retaining qualified and experienced staff is jeopardised.
3. When health systems are fragmented and operate in silos with a narrowly defined scope of goals, practitioners and staff focus on and seek to meet the goals of the organisation they work for rather than those of the individual patient.
4. Conversely, when care is organised around the person, it can be provided in a manner that is personalised and flexible which results in meeting the particular needs of the patient; services work together connecting around the patient's needs and providing the patient with clarity of what their next steps are and give assistance in reaching those next steps, leading to the patient journey being easier to navigate; and services take responsibility for accessibility by seeking to understand the full needs of the patient, respecting their time and other commitments, and being transparent about the reasons why a given treatment is needed.
5. When healthcare leadership and management support and champion inclusive cultures, it allows services to be delivered in a non-stigmatising, respectful and empathetic manner which leads to trust developing between patients and staff. Over time, the experience of trust in a context of an inclusive culture, reinforces and strengthens the patient/practitioner relationship and ultimately allows for ongoing healthcare accessibility.
6. When health services are delivered in a flexible manner, practitioners can use their expertise to anticipate, and adapt care to, the needs of the patient. As a result, the patient's needs are identified, and if met, the patient experiences less frustration and fear which leads them to feel seen and understood, which promotes ongoing engagement with services and ultimately leads to ongoing access taking place.

Making healthcare accessible for populations experiencing homelessness who have complex needs requires stable funding for sustainable staffing, coordination of services which should be delivered in an inclusive culture championed by leadership, and space to allow practitioners and staff to use their

expertise to provide anticipatory, flexible care. Trust and the development of ongoing trusting relationships between patients and staff is key.

Strengths and limitations

In this review we have used the RAMESES publication standards [78] to guide us in rigorously and systematically reviewing and synthesising the literature included here.

This analysis has taken a high-level view of systematic factors across a breadth of data not focused on specific interventions or disease areas. Our findings have uncovered modifiable health system and service contexts that are applicable and transferrable among high-income countries. The analysis has been informed by the involvement of content experts and stakeholders who have confirmed and challenged findings resulting in further refinement.

Like any review this one relies on the available literature. A potential limitation of this study is that the initial search of peer-reviewed articles included only literature reviews which may mean that we missed some articles. However, a large volume of relevant data was identified through the reviews and these were further augmented by citation tracking, expert advice and additional searching to identify additional key documents. Our search did not identify studies from low-and middle-income countries and we cannot therefore say whether our findings are transferrable in such contexts. More research is needed to explore how the contexts outlined here are applicable or not to low-and middle-income countries, how, for whom and why.

Much like a majority of the literature on access to healthcare for populations experiencing homelessness the initial programme theory took the perspective of an individual seeking to access healthcare services. However, as the goal of this review was to explain health system factors impacting healthcare access for populations experiencing homelessness, the initial programme theory did not provide a helpful framing for the goals of the study and we did not use it in the search, data extraction or analysis phases as is often done in realist work.

This review did not utilise patient and public involvement (PPI). The research team felt that PPI would not have added sufficiently to this system-level analysis to warrant the use of potential participants' time and resources. Furthermore, we felt that appropriate 'PPI-like' engagement for a study like this should be with frontline staff who function at the intersection of the patient experience with health system goals, culture and operational procedures. To capture this perspective, we held a formal expert panel meeting with a number of stakeholders representing professional groups working with populations experiencing homelessness. More similar engagement during the design phase of the study would likely have been helpful and could have added to the initial programme theory building, searching and analysis phases of the study.

None of the included peer review studies specifically analysed health system features. Some analysed service/programme level features that promote or impede access [40,63] but the majority of reviews synthesised and described the accessibility of particular individual level treatments such as for TB, diabetes, palliative care and cardiovascular disease.[39,52,60,65,71,79,80] However, grey literature sources added substantially to the set of findings about high-level health system contexts and mechanisms (eg resourcing, expertise, funding cycles, fragmentation and goal setting).

The included data sources did not differentiate between health access outcomes specifically in response to health system features within subgroups among long-term single homeless individuals with complex needs. Therefore the 'for whom' part of the analysis was not as fully developed as it might have been with more research needed.

There was wide variety in the quality of the reviews themselves with some being transparent and following the guidelines of their particular review methodology closely (eg search string and list of databases provided, appropriate quality appraisal tools used, systematic approach, using appropriate reporting standards, etc) while others did so to varying degrees and a few not at all. A majority of reviews were based on qualitative, descriptive, and small-scale quantitative studies using a variety of methods eg RCT, cohort and case-control studies. The majority of included studies evaluated a particular aspect of healthcare access eg association between having health insurance and having a usual source of care.[81]

Comparisons with existing literature

We are aware of no other realist reviews examining healthcare accessibility for populations experiencing long-term homelessness and complex needs and of no other reviews of any approach that have examined high-level health system features that impact healthcare accessibility for the same population group. Other reviews have focused on specific healthcare interventions and most take the point of view of the patient navigating services or systems. This review differs in that we have analysed the upstream health system and service contexts that promote healthcare accessibility and have found generalisable features not specific to a particular intervention or the treatment of particular illnesses. These uncover causative relationships between how healthcare is organised and delivered at a systems and service level and its accessibility for populations experiencing homelessness and complex needs.

A realist review by Ford et al [82] of factors that impact access to primary care for socioeconomically disadvantaged older people in rural areas focused on the patient journey in accessing healthcare and not on health system features. However, there were similarities between its' findings and ours: at the service level, both studies found barriers related to ease of booking, clarity of information, system and service navigability, provider responsiveness to patient needs, patient empowerment, social status, trust, and clinician empathy and capacity.

There are similarities between our review and Aday and Andersen's 'A framework for the study of access to medical care'.[12] Our CMOCs all explain aspects of the two first boxes in their Framework: health policy (eg financing, education, manpower and organisation) and characteristics of health delivery system (eg resources, organisation).

Our CMOCs also hold some similarities with Levesque et al's 'Patient-centred access to health care: Conceptualising access at the interface of health systems and populations'[83] although it is focused on the individual patient journey. Concepts including acceptability (eg professional values, norms and culture) as well as appropriateness (eg technical and interpersonal quality, coordination and continuity) are important to CMOCs 1, 4, 5 and 6.

Meaning of the study

As in other realist works, our analysis has uncovered demi-regular patterns of outcomes resulting from mechanisms being activated in the specific contexts described in the literature. Mechanisms are not always activated in a given context. Outcomes are occurring at both a system level and individual level. The topic of access to healthcare for homeless populations is a complex one in and of itself but it sits within an area of much more complexity: the general treatment of homeless and socially excluded populations in all areas of society including health, housing and social care. The narrow focus on access to healthcare here is due to the specificity needed to conduct sound research, however, this focus is not meant to be seen as an argument for siloed thinking and service provision.

In fact, population groups on the extreme margins of society, such as populations experiencing long term homelessness, are in particular need of comprehensive, joined up strategies in their care. These populations tend to exist at the intersection of multiple disadvantages in life (eg substance use, childhood trauma, poor mental health, contact with criminal justice systems) which can amplify each other. At the same time, these people also have a high risk of falling into gaps between service and policy areas each focused on their particular goals and targets. For example, housing and health policies are often not joined up.[84]

It is well known that lacking adequate housing in and of itself causes illness to occur [2]. It is likely that many of the findings in this review can be applied more broadly to all socially excluded populations and form a basis for thinking about how to make a health system fully responsive to populations experiencing a variety of deprivation or differentiation from ‘the norm’ and thus truly universal, informed by existing approaches such as Universal Design.[85] A non-judgemental, flexible and empathetic approach should be applied to all services for all socially excluded populations and beyond, in conjunction with a joined up approach to health and social care.[62,77,85]

The first three CMOCs above (CMOC 1-3) were generated almost exclusively from grey literature sources and the other three (CMOC 4-6) were generated primarily from peer reviewed literature. The grey literature included many high-level systems topics including resourcing, funding cycles, the siloed nature of healthcare, health system goal setting and more, as well as describing patient level factors. The majority of the peer reviewed literature described patient level healthcare interactions. In these interactions, contexts are often reflective of systematic or at least service-level planning, management, culture and leadership decisions and practices but they were not explicitly examined. There is a need for more research exploring healthcare access for people that experience homelessness from a health systems perspective.

Implications for policy and future research

Based on the findings in the review, we recommend the following points for further exploration and research and future policy making in the area:

1. Healthcare services should be funded using multi-year stable funding cycles (CMOC 2)
2. Healthcare services for vulnerable populations should be the specific responsibility of a health system entity so it is not allowed to fall between different sectors or budget lines (CMOC 2 and CMOC 4)
3. Healthcare for individuals experiencing homelessness should be provided in settings that do not allow stigma to dominate the culture. Trauma-informed practice and a deep understanding of the life experiences of socially excluded populations at all levels of an organisation or system are key and these should be championed by leadership and management to create a culture that is accessible to all (CMOC 1 and CMOC 5)
4. Healthcare should be easy to navigate for patients. Pathways, procedures and communication should all be highly coordinated and designed with patients’ needs in mind. One-to-one support from key workers and peer-advocates increase navigability (CMOC4)
5. Courses of treatment should be planned transparently in collaboration with the patient based on his or her full set of needs and wishes as a full person (CMOC4)
6. Healthcare should be provided in flexible settings with flexible rules to allow for meeting patients’ life circumstances and needs where they are (CMOC 4 and CMOC 6)
7. Healthcare system goals should be set with flexibility and complexity in mind CMOC 1, CMOC 3 and CMOC 6)

8. Providers and staff should be recruited based on their motivation in working with the patient population and adequate training should be given to ensure that all staff and providers understand the needs of the population group (CMOC1 and CMOC 6)

These recommendations will likely benefit most patients, housed or not, and as such investing in them would pay dividends for populations beyond those experiencing homelessness. However, for homeless populations these are crucial to ensuring that an already vulnerable group does not face further social exclusion when accessing healthcare.

Conclusion

Access to healthcare for populations experiencing homelessness depends on adequately resourcing and training providers to meet the particular needs of patients in a welcoming and attentive setting without stigma and judgment. Services should be closely linked, and staff and providers should be empowered to take responsibility for providing flexible, responsive and opportunistic care in flexible settings. For patients, having a good experience and getting one's needs met sets a precedent for future appropriate healthcare access. The contexts in which this is possible arise in a respectful, empathetic culture which is created when managers and leaders value and champion it.

Acknowledgements

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Authorship

RS, CNC, SB, JF and ST developed the research project. RS, JF and CNC developed the search strategy with the help of a subject librarian. RS and JF shaped and refined formal search strategies. RS carried out screening and article selection process, applied a realist logic of analysis to the data, built CMOCs and programme theories, presented to the expert panel and drafted the article. SB screened a subset of articles and facilitated the expert panel meeting. CNC added to the refinement of CMOCs and programme theory. JF provided guidance and oversight of the realist analysis and added to the refinement of CMOCs and programme theory. CNC, SB, JF and ST provided subject matter expertise and critical revisions at multiple stages. All authors read, reviewed and approved the final manuscript.

Data sharing statement

All data relevant to the study are included in the article or uploaded as supplementary information.

Figures

Figure 1 The stages of a realist review

Figure 2 Prisma diagram

Figure 3 CMOC 1: Resourcing

Figure 4 CMOC 2: Funding stability

Figure 5 CMOC 3: Fragmentation and goals

Figure 6 CMOC 4: Care organised around the person

Figure 7 CMOC 5: Inclusive Culture and leadership

Figure 8 CMOC 6: Flexible healthcare delivery

Figure 9 Overarching programme theory

Table 1 Summary table of included studies from systematic peer-review search

Ethics statement

Ethical approval for this study was not applicable as it is a literature review of previously published works.

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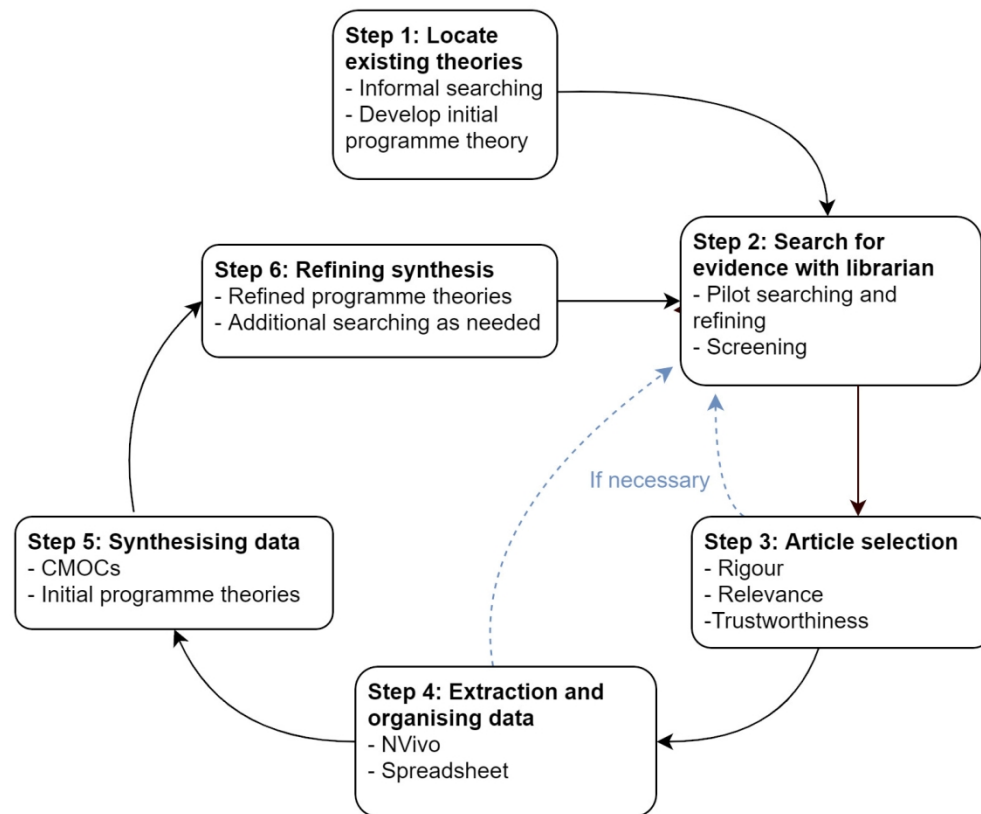
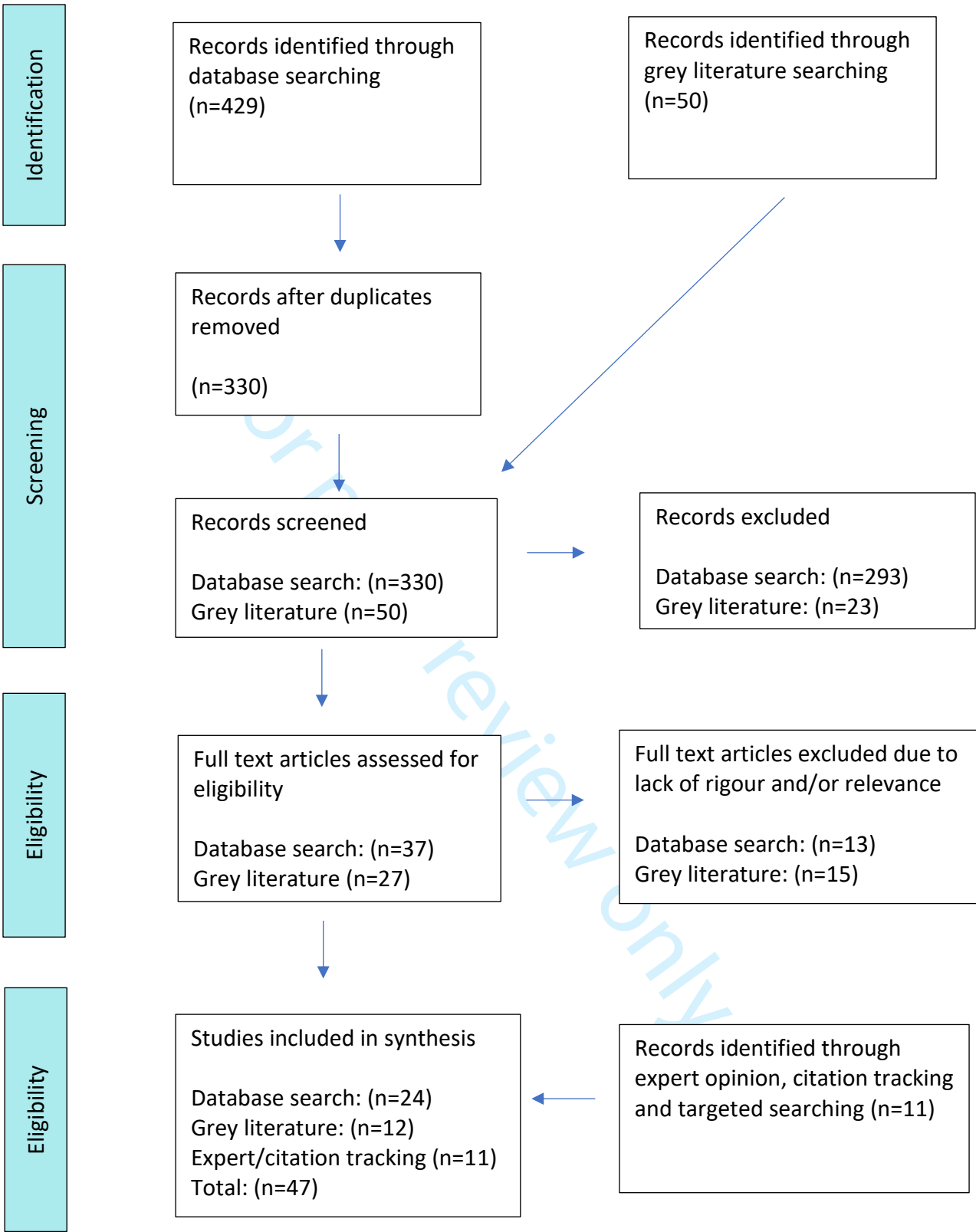


Figure 1: The stages of a realist review

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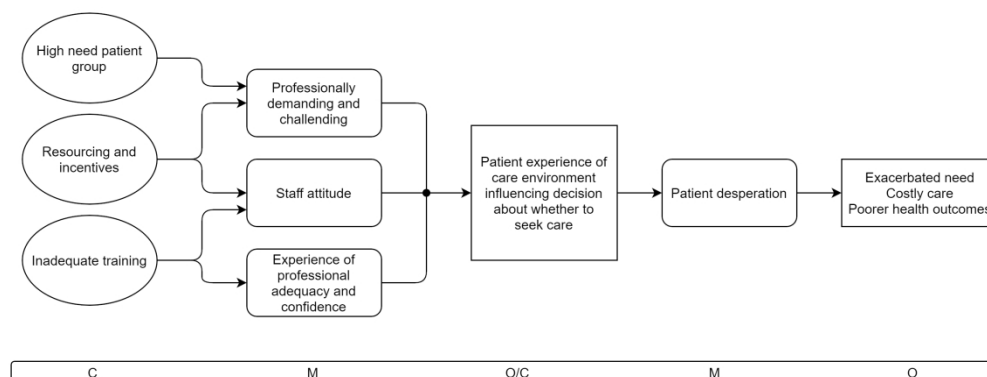


Figure 3: CMOC 1 Resourcing



Figure 4: CMOC 2 Funding Stability

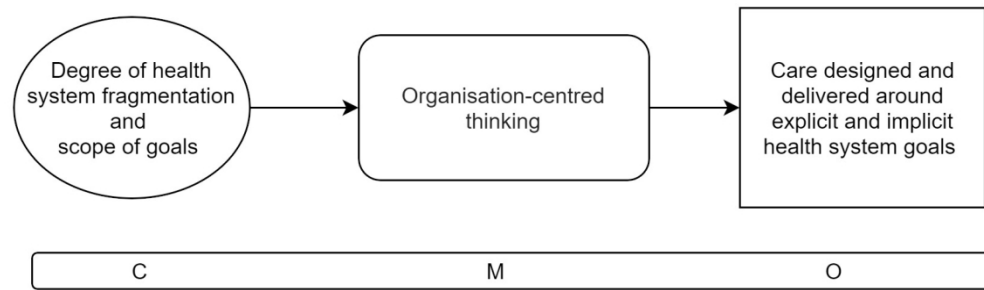


Figure 5: CMOC 3 Fragmentation and goals

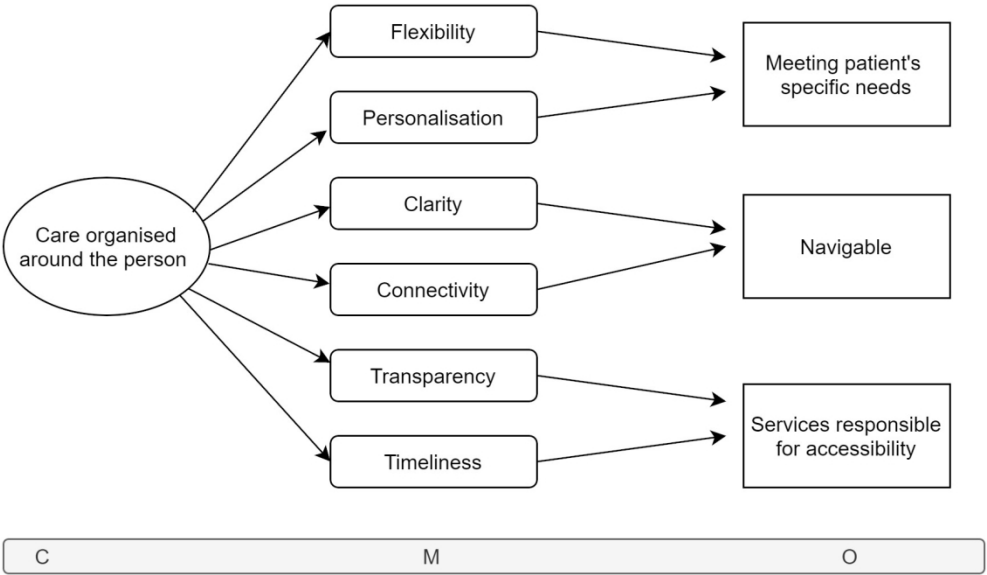
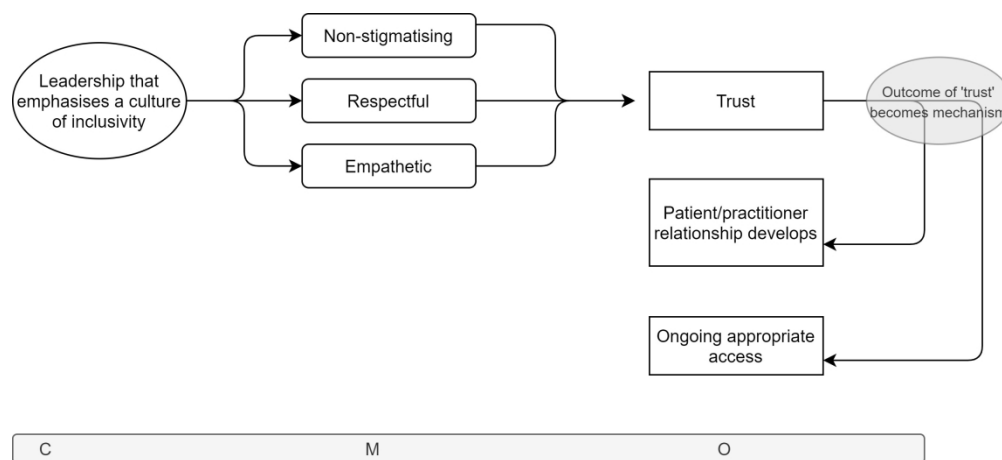


Figure 6: CMOC 4 Care organised around the person



CMOC 5: Inclusive Culture and leadership

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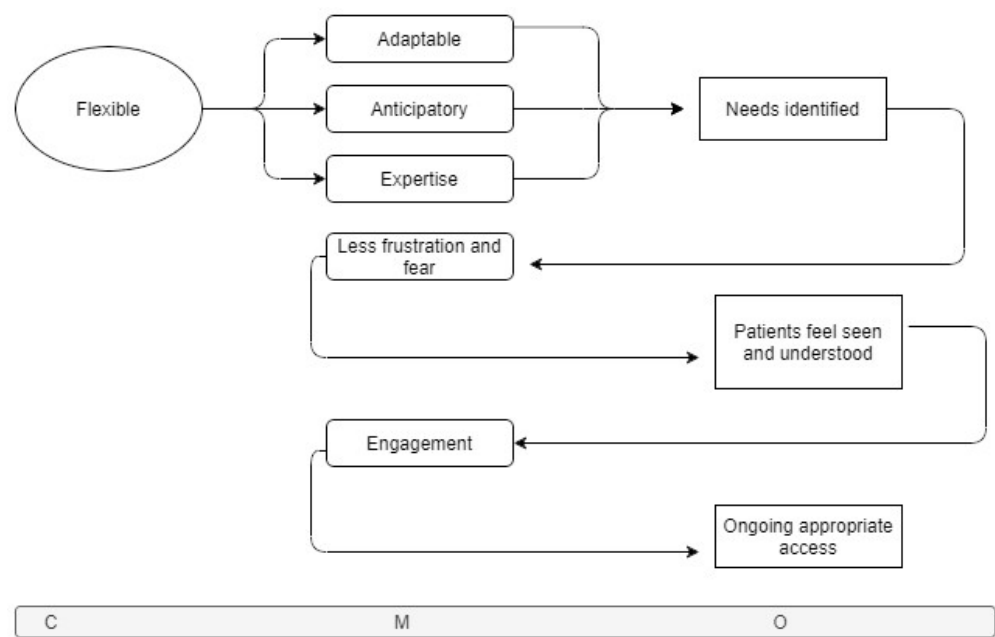


Figure 8: CMOC 6 Flexible healthcare delivery

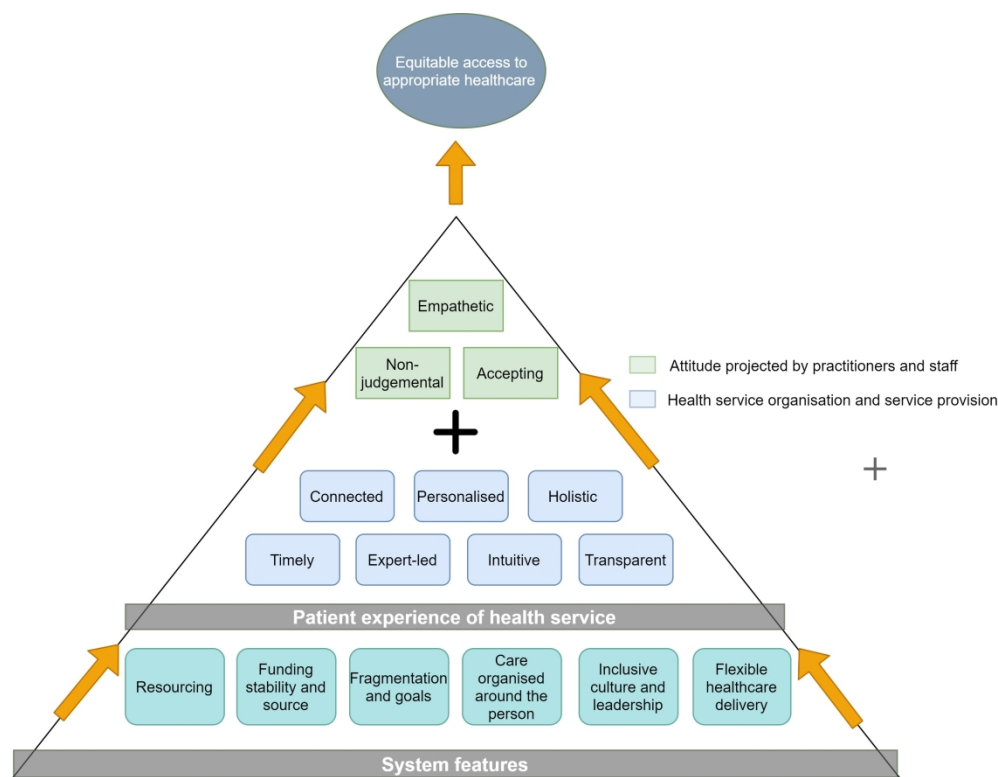


Figure 9: Overarching programme theory

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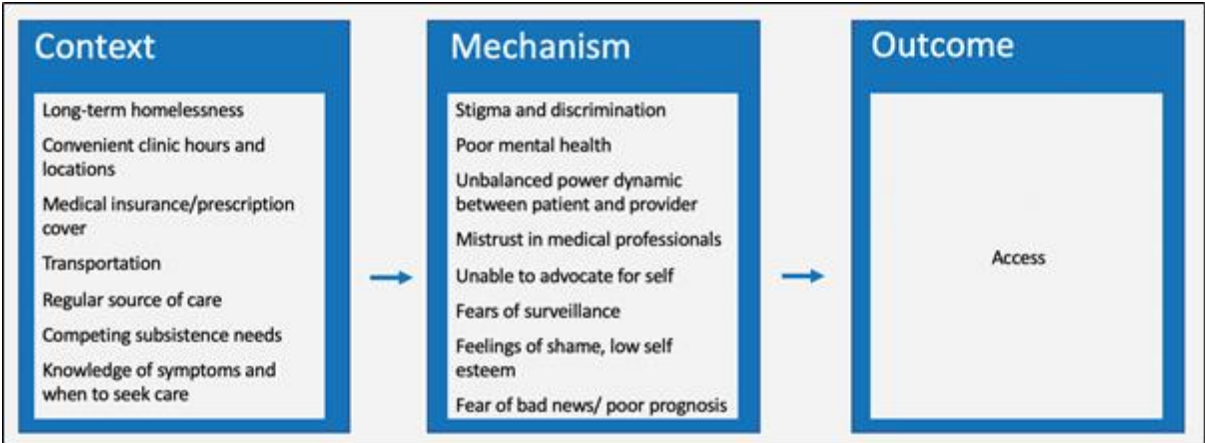
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1. Initial rough programme theory



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2. Systematic literature searches

Ovid MEDLINE (25 April 2019)

Number	Search details	Hits
1	exp Homeless Persons/	8,246
2	(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "indigenous people" OR "indigenous population*").ab,ti.	16,947
3	exp Health Services Accessibility/	104,062
4	("health service* barrier*" OR "health service* access*" OR "health care access*" OR access adj2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier adj2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet)).ab,ti.	22,007
5	1 OR 2	19,141
6	3 OR 4	118,956
7	5 AND 6	1507
11	limit 10 to (english language AND "review articles")	154

Embase.com (26 April 2019)

Number	Search details	Hits
1	'homelessness'/exp	10,242
2	'homeless person'/exp	1,371
3	'vagrancy'/exp	11
4	(homeless*:ab,ti OR 'homeless person':ab,ti OR 'homeless population*':ab,ti OR 'no fixed address':ab,ti OR 'no fixed abode':ab,ti OR 'emergency accommodation':ab,ti OR 'supported accommodation':ab,ti OR 'supported housing':ab,ti OR hostel*:ab,ti OR 'night shelter':ab,ti OR 'bed and breakfast':ab,ti OR 'hard to reach':ab,ti OR vagrancy:ab,ti OR vagrant*:ab,ti OR 'rough sleep*':ab,ti OR 'sleep* rough':ab,ti OR 'street people':ab,ti OR 'street person*':ab,ti OR squatter*:ab,ti OR vagabond*:ab,ti OR 'inadequate housing':ab,ti OR 'hidden homeless*':ab,ti OR 'indigenous people':ab,ti OR 'indigenous population*':ab,ti	20,523
5	'health care access'/exp	55,849
6	("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet)).ab,ti.	28,437
7	#1 OR #2 OR #3 OR #4	23,407
8	#5 OR #6	78,165
9	#7 AND #8	1,286
10	#7 AND #7 AND [review]/lim AND [English]/lim	173

CINAHL (26 April 2019)

Number	Search details	Hits
1	(MH "Homeless Persons")	4,724
2	(MH "Homelessness")	3,378
3	TI homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*"	7,879
4	AB homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond** OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*"	8,236
5	(MH "Health Services Accessibility+")	72,405
6	TI 'health service* barrier*' OR 'health service* access*' OR 'health care access*' OR access ADJ2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet) OR barrier ADJ2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet)	80,358
7	AB 'health service* barrier*' OR 'health service* access*' OR 'health care access*' OR access ADJ2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet) OR barrier ADJ2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR 'culturally competent' OR 'safety-net' OR 'safety net' OR safetynet)	80,625
8	#1 OR #2 OR #3 OR #4	12,280
9	#5 OR #6 OR #7	81,401
10	#8 AND #9	1,537
11	#8 AND #9 (limited to English and publication type: Meta Analysis, Review, Systematic Review)	101

ASSIA (26 April 2019)

Number	Search details	Hits
1	MAINSUBJECT.EXACT("Homelessness") OR MAINSUBJECT.EXACT("Homeless elderly people") OR MAINSUBJECT.EXACT("Homeless men") OR MAINSUBJECT.EXACT("Homeless families") OR MAINSUBJECT.EXACT("Homeless women") OR MAINSUBJECT.EXACT("Homeless people") OR MAINSUBJECT.EXACT("Homeless pregnant women") OR MAINSUBJECT.EXACT("Homeless older people")	4,008
2	ab(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*")	7,083
3	ti(homeless* OR "homeless person" OR "homeless population*" OR "no fixed address" OR "no fixed abode" OR "emergency accommodation" OR "supported accommodation" OR "supported housing" OR hostel* OR "night shelter" OR "bed and breakfast" OR "hard to reach" OR vagrancy OR vagrant* OR "rough sleep*" OR "sleep* rough" OR "street people" OR "street person*" OR squatter* OR vagabond* OR "inadequate housing" OR "hidden homeless*" OR "indigenous people" OR "indigenous population*")	3,796
4	ab("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet))	10,687
5	ti("health service* barrier*" OR "health service* access*" OR "health care access*" OR access NEAR/2 (health OR service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet) OR barrier NEAR/2 (health or service OR medical OR prescription OR prescribe OR therapy OR therapies OR treatment OR treatments OR "culturally competent" OR "safety-net" OR "safety net" OR safetynet))	1,708
6	S1 OR S2 OR S3	7,884
7	S4 OR S5	11,386
8	S6 AND S7	335
9	S6 AND S7 (limited to English language and "literature reviews" and "reviews")	1

3. Glossary of terms

- Context:** environments, settings, circumstances or structures that trigger mechanisms. Anything which triggers, impedes or blocks the action of a mechanism[1]
- Context-mechanism-outcome configuration (CMOC):** configuration that explains the causative relationship between a mechanism which is triggered in a given context and as a result produces an outcome[1]
- Mechanism:** apre-existing, latent causal power or force (eg norms, belief systems, gender, class and sequential processes) which is activated in a particular context leading to an outcome. Mechanisms cannot be directly measured or seen[1]
- Outcome:** impact, change or action arising when a particular mechanism is activated in a particular context[1]
- Programme theory:** a combined set of theoretical explanations of how a particular process, intervention or programme is expected to work[1]
- Realist approach:** the realist approach to research used in realist review and realist evaluation is a theory driven way to explain generative causation in areas of study that are highly complex and in which empirical testing is not possible[1]
- Relevance:** the determination of whether a particular study, report, article etc is relevant to the research question[1]
- Rigour:** the determination of whether a particular finding or piece of information in a given source was arrived upon in a way that was robust and faithful to the particular method being used. If a study was done well adhering to its method it is more likely to be rigorous however all sources of data can yield pieces of helpful information[1]

4 Illustrative examples of included data

CMOCs	Examples of supportive data
CMOC1: In a context where mainstream health practitioners and staff (in hospital and primary care settings) are expected to treat long term homeless populations without being provided adequate resources and incentives while also having inadequate expertise in the particular needs and life experiences of this group (C), practitioners and staff feel professionally challenged (M) with feelings of professional inadequacy (M) and a lack of confidence (M) and display an unwelcoming attitude toward patients (M). As a result, patients’ experience of the care environment is a negative one which influences them to choose to not seek care at an appropriate time (O). This outcome becomes a new context where patients wait to seek care need is emergent (M) and they feel desperate (M). The result is an exacerbated, more costly need for care (O)	<p>The other issue is resources. Nine out of ten GPs in the Crisis survey felt that GPs need extra resources in order to provide homeless people with the same levels of access to GP services as the average person. Homeless people do present with multiple and complex needs which require extra resources and sometimes specialist knowledge. GPs and practice staff are not, in general, given any specialist training in understanding the specific needs of homeless people (Crisis, 2002)</p> <p>Health professionals described experiencing “feelings of failure or lack of achievement” when working with homeless people. Treating an individual with needs that are very different to those of their usual patient group, with little training could limit the provision of quality palliative care for this population. Inexperience in caring for people who are homeless may contribute to some of the attitudes health care professionals may hold towards homeless and may also contribute to their perceptions of stress and burden. [2]</p> <p>A Queen’s Nursing Institute Homeless Health Initiative survey of homeless and non-homeless health specialists found that:</p> <ul style="list-style-type: none">• Only 36% of all specialists and 8% of nonspecialist nurses had ever received any training on homelessness and health• 71% of non-Homeless Health Specialists were not confident in their ability to care for homeless people

	<p>• 74% of all respondents (mainstream and specialist) are lone workers always, often or sometimes [3]</p> <p>The negative attitude of other healthcare professionals can be a big hurdle for specialist clinicians working with these clients. Some staff are very judgemental and can be very discriminating against people who are homeless. This may be because of a lack of knowledge, understanding and skills needed to care for them. It is very important that all staff, including commissioners and managers, try to be accepting, nonjudgemental and appreciate the additional basic requirements.[4]</p> <p>“Whilst access to secondary care is often seen as an area of less concern than primary care, and the main issues identified mainly relate to cultural sensitivity, the admission and length of stay patterns for members of socially excluded groups are showing an underlying problem. These patients are admitted more often, stay longer and are re-admitted more frequently. This highlights a number of issues further upstream: that these patients struggle to access other services, and therefore they turn to secondary care, and that they are sicker and do not receive the same quality of care as other patients, particularly when looking at discharge arrangements.”[5]</p> <p>“People who are living on the street...it’s much harder to access them. They don’t come to us and they don’t go anywhere for help until they’re so sick that they’re picked up by an ambulance” – Health care professional [2]</p>
<p>CMOC2: In a context where funding comes from multiple sources and where funding cycles are short and unreliable(C), staff members employed on short term contracts experience instability (M) and a lack of a feeling of job security (M) because they are in a series of continual contract renewals. The precarious sustainability of the services they work for lead to staff being asked to do more with less but job satisfaction is low (M) because services are permanently in a state of flux making it difficult to achieve good outcomes for people who need extra time and attention. Because they work for organisations with important missions they are expected to not care as much about pay and conditions as they care about helping. The outcome is difficulties hiring and retaining highly skilled and experienced staff members.(O)</p>	<p>Others felt that longer term funding contracts would offer staff more security of employment. The underlying fact is that we are government funded for cycle periods where funding contracts and notifications of outcomes continues to be delayed or left to the last minute where we may lose staffs due to uncertainty in ongoing funding or new contracts. (Medium non-metropolitan SHS provider) Job security - not having to tie employment to funding contracts. (Large nonmetropolitan SHS provider) [6]</p> <p>While funding of homeless service through Department of Housing Section 10 funding was largely frozen during the period of austerity budgets, funding from the Department of Health/HSE experienced massive cuts, in some cases of over 40%. Severe reductions in HSE funding during the course of the recession placed a significant strain on the range of social care, mental health and physical health services which are essential in supporting people who are experiencing homelessness to exit to independent living. These cuts happened in parallel with a massive increase in the numbers of people who were homeless and an increase in the support needs of many groups. To a large extent, these cuts were absorbed through wage cuts and wage freezes for the staff in the voluntary sector. While the public sector is going through a process of pay restoration, staff in voluntary sector services, particularly those funded by the HSE, have seen little pay restoration and, frequently, no increments for several years. This is leading to recruitment problems in front-line services, just when need is greatest. [7]</p> <p>Non-profit staff is seen as motivated in distinctive ways when compared to workers in other sectors through greater commitment, stronger non-</p>

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monetary orientation and greater degrees of altruism to serve others. **The strong mission attachment among staff has led conventional wisdom to assume that they are seen as willing to work for lower salaries and fewer benefits** because they associate so strongly with the organisational goals. **However, in a time of recession, non-profit organisations are faced with the dilemma of cutting back on terms and conditions, while at the same time relying more than ever on dedicated staff to deal with increasing demand.**

“A lot of voluntary employers seem to think that because the social purpose of the organisation is so laudable, that people ought not to fuss about their salaries, their working conditions and other issues”. [8]

The current economic climate in the country was something which was very prevalent in the minds of those interviewed, **in terms of increasing needs of clients, further demands on services and negative impacts on employment terms and conditions. Staff interviewed felt in some cases that there was an expectation that staff could do more with less, and it was assumed that pay and conditions were not as important to them.** “Sometimes it’s seen as, ‘well you’ve a caring personality so just get on with it’. Well it takes a bit more than a caring personality.” (Interview D) [8]

Multiple budgets: People facing multiple needs require help from a wide range of services, each funded from different budgets, held at different levels. Many agencies and commissioners view their role as being for a particular group of individuals (usually with one severe problem rather than multiple problems) and **allocate their resources accordingly.**[9]

All the case studies reported difficulties in recruiting staff, particularly nurses, who were willing to work on the streets with people sleeping rough. Depressed wages and short-term contracts related to the short-term nature of funding through the Rough Sleeping Initiative made it hard to attract workers with the right level and type of expertise to make a real difference. This impact was felt across sectors – the NHS, the voluntary, community and social enterprise (VCSE) sector and local authorities. [10]

We also heard concerns about the sustainability of local funding, and the instability caused by continual contract renewal, as well as clashing commissioning cycles of the clinical commissioning group and local authorities. **Others reflected that the lack of stability from commissioning created particular challenges: when services were ‘forever in a state of flux’ it was hard to achieve good outcomes for people who need the space and time to recover from being homeless.** [10]

CMOC3: In a context where various parts of a health system operate in silos with narrowly defined goals (C), staff engage in organisation-centred thinking (M) and prioritise the goals of the health system over those of the patient. As a result, healthcare is organised around the needs of providers and the system not the person (O).

There is a limited evidence base on what works for these clients and, particularly in small specialist services, a lack of capacity and/or capability to evaluate effectiveness and impact

- Services often lack the flexibility to respond to complex needs and chaotic lifestyles
- **There are few incentives to promote partnership working around clients with complex needs**
- **It is easy for clients to fall between the gaps of different services leading to expensive unplanned care and clients 'revolving' through the system**
- **There are gaps in and barriers to provision e.g. access to mental health services for those with dual diagnosis**
- **There is an artificial divide between clinical and social models of care**[3]

Many of the practitioners noted the lack of joined up working between the numerous services that are involved in this client's care as a result the care is often fragmented, reactive and can be disordered. For example the voluntary and non-statutory services, that support people who are homeless, have different agendas to the public health services in the way they care for the clients.[4]

... if the services are being funded by criminal justice to do say DRRs [Drug Rehabilitation Requirements] things like that, **they've got targets to meet, so the actual individual has got no say at all because they're there on the basis of "you're here because you need to be here. We're here to get our wages because we've been told by the government, courts, prisons, whatever to do what we need to do and actually your needs come second to what we're setting out to do..."** [11]

Commissioners are focused on outcomes which are narrow and specific to their sector. The approach of government departments filters down to local commissioners. This leads to them and the services they commission replicating the 'silo culture', **focusing on a narrow range of outcomes rather than on the wider set of issues that contribute to multiple needs and exclusions.** Joint commissioning has grown over the past decade but needs to go further, with a specific focus on this group. [9]

People with multiple needs want to be placed at the centre of their own support. However, people felt that their needs and aspirations were not always seen as a priority, and that services' ability to provide support can be limited by the way they are designed and commissioned. **People also felt that targets or conditions attached to funding meant that practitioners weren't able to focus on the individual and decide what was best for them.**[11]

The highly compartmentalised nature of health care systems can create a barrier to comprehensive care for PWID whose needs are complex and may span multiple domains, such as drug dependency treatment, acute health care (wounds and infections), psychiatry and hepatology. Hospital-based HCV treatment is often not ideally suited to PWID due to: geographic distance; referral-associated delays; inflexible appointment policies; lengthy waiting times; limited infrastructure and psychosocial supports; abstinence requirements; and prejudicial attitudes of some staff to PWID. **Barriers to HCV treatment access for PWID include a lack**

<div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>6</div> <div>7</div> <div>8</div> <div>9</div> <div>10</div> <div>11</div> <div>12</div> <div>13</div> <div>14</div> <div>15</div> <div>16</div>	<p>of continued engagement in medical care at the same site, with some PWID experiencing a lack of consistency in the management and monitoring of their HCV, and an accompanying confusion about HCV symptoms, test results and status. Navigating health care systems and unfamiliar hospital settings can be daunting for PWID, particularly for those who may have had previous negative experiences with providers. [12]</p> <p>This feeling was echoed by others who noted that GPs often wanted very brief consultations, and even then they were not listening to the health problems being explained to them. This was described as: ‘A conveyer belt; just in one door and out the other ... get your prescription and of out the door with you.’ Homeless participant 2 [13]</p>
<div>17</div> <div>18</div> <div>19</div> <div>20</div> <div>21</div> <div>22</div> <div>23</div> <div>24</div> <div>25</div> <div>26</div> <div>27</div> <div>28</div> <div>29</div> <div>30</div> <div>31</div> <div>32</div> <div>33</div> <div>34</div> <div>35</div> <div>36</div> <div>37</div> <div>38</div> <div>39</div> <div>40</div> <div>41</div> <div>42</div> <div>43</div> <div>44</div> <div>45</div> <div>46</div> <div>47</div> <div>48</div> <div>49</div> <div>50</div> <div>51</div> <div>52</div> <div>53</div> <div>54</div> <div>55</div> <div>56</div> <div>57</div> <div>58</div> <div>59</div> <div>60</div>	<p>CMOC4: In a context where care is organised around the person, mechanisms of flexibility and personalisation are triggered allowing for the patient’s specific needs to be met. Further mechanisms of service connectivity and making pathways understandable are triggered leading to the outcome of enhanced health system navigability. Also mechanisms of transparency and timeliness in the delivery of services enable the outcome of placing the responsibility for access on services themselves providing services in an opportunistic way using shared and transparent decision making to fit with the patient’s particular wishes and needs at the time they arise.</p> <p>Health care practitioners need to provide anticipatory guidance to reduce harm, prescribe medications at no or low cost, choose simple treatment regimens, and ease follow-up by offering walk-in appointments and care during evening hours. [14]</p> <p>A Pathway team is a simple intervention designed to break these cycles of failure and exclusion. A Pathway team is a specialist medically led multidisciplinary homeless team based in the hospital. It works with and alongside a patient’s medical team to enhance the quality of care offered during their time in hospital. Teams include housing specialists working alongside clinicians so that before the patient leaves hospital a plan has been developed for their onward care. Teams are led by specialist GP’s who bring their knowledge and skills of caring for homeless people in the community, as well as their expertise in prescription of methadone, personality disorder, and chronic disease management. Nurses manage team caseloads and bring vital clinical experience in homelessness, addictions and mental health, as well as practical knowledge of how to get things done in a hospital. Housing specialists bring their expertise to the bedside and help build links with voluntary sector services in the community. Some Pathway teams also include Care Navigators, paid staff who have personal experience of homelessness who focus on relationship building. Larger teams also include occupational therapists, social workers and mental health practitioners. [15]</p> <p>Patients need a holistic approach, as they are not experiencing their needs in isolation. Mental health, substance misuse and general health issues occur simultaneously with social and environmental needs [5]</p> <p>Dedicated hospital pathway: it has been proven that a ‘transversal’ pathway, cutting across medical specialties has both a positive impact on the user experience and on the cost effectiveness of the care provided. [5]</p> <p>In three studies in which arrangements were made for same-day assessment, or participants were escorted, supported or incentivised to attend, uptake was 70% to 92%.The other three studies reported following the usual referral pathways, and uptake of the diagnostic pathway was lower, at 44–57%. [16]</p>

Suggestions for overcoming the complex needs and irregular lifestyles of homeless people in the delivery of palliative care included **taking a pragmatic, person-centered approach, setting goals that are realistic in the context of homelessness and removing discrimination and stigma from health care interactions.** [2]

One suggestion for achieving this was the use of peer mentors, or experts by experience who could accompany, mentor or advocate for homeless people as they try to access health care services. Previous work from Groundswell in the UK has found that the use of peer mentors can be effective in increasing the confidence and motivation of homeless people to access health care and in decreasing reliance on unplanned secondary care services. This may well be a model that could be extended for homeless people with advanced ill health. [2]

Multicomponent interventions with coordinated care are most effective and should include both health and nonhealth services. Partnership working and service design around the whole person is necessary to achieve the best results. [17]

The following were key principles of services that were valued by participants: **provide ample time and patience to really listen; strive to develop trust and acceptance; provide supportive, unbiased, open, honest, and transparent services in inclusive spaces and places; encourage clients to accept personal responsibility for health; allow clients to take ownership, have choices, and participate in decisions; and above all, promote accessibility, fairness, and equality.**[17]

Outreach models made it easier for young people to contact services, along with colocated services, and being able to drop in. Waiting times, opening hours (a lack of afterhours services), and eligibility for the service (including age and other intake criteria) were also noted as access barriers. Service availability for priority health conditions, perceived or actual, also affected access. [18]

Navigation can be improved by reducing duplication, simplifying referral and appointment systems, strengthening services partnerships and linkages, and improving clarity about service roles and colocated services. Navigation support is also worthy of further exploration. [18]

People who sleep rough are often characterised as 'difficult to reach'. However, staff working in this field were quick to challenge this label. They argued instead that local authorities and the NHS had a responsibility to design services that people who sleep rough could easily access. They wanted to create opportunities to find and connect with the population who sleep rough.[10]

Leaders should be committed to collaboration – and to taking responsibility. Multi-agency working to tackle rough sleeping requires a commitment to collaboration across the system. But someone needs to take the lead, someone has to drive the strategy and someone has to have the authority to call people to account for delivering their individual responsibilities for improving outcomes for people sleeping rough. Particular attention needs to be paid to where responsibilities intersect or stop.[10]

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	<p>Allow for patients to have “unscheduled” space to share their life stories and to acknowledge those stories A pragmatic approach by staff, facilitating flexible care solutions, such as the choice where to die and accepting that planned activities may not happen or need to be cancelled [19]</p>
<p>CMOC 5: In a context where leadership emphasises a culture of inclusivity and explicitly commits to and promotes values of inclusivity and whole organisation policies and processes, services are provided in non-stigmatising, respectful, empathetic ways which builds trust between practitioners and patients. As a patient/provider relationship develops a positive feedback loop is created resulting in deepening trust which compounds and facilitates ongoing engagement which leads ultimately to ongoing appropriate access to health services at the right time and right place.</p>	<p>There is a wide range of health services nationally, but a far smaller pool of experienced nurses focused on holistic and integrated healthcare for people experiencing homelessness. This type of healthcare is time and labour intensive. It is vital that commissioners understand the complexities around engaging and building relationships and trust with people who are homeless as one of the crucial elements of delivering healthcare. [20]</p> <p>Previous experience of services and positive perceptions of counselling affected health care seeking behaviour (French et al., 2003) and the availability of a case manager and/or youth worker (Aviles & Helfrich, 2004). [21]</p> <p>In facilitating access to palliative care, building or rebuilding trust between homeless people and health care professionals was considered vital by homeless people and those supporting them. It was recognised though that this would not be easy:</p> <p>“You have to earn it. You have to show that you want to do something for them [homeless people]. You have to be respectful and treat people with the same kind of treatment that you would want. It's often word of mouth. One client will say, “Listen, you can trust her” - Harm reduction outreach worker</p> <p>[2]</p> <p>Trustful and respectful relationships were also mentioned as a recommendation for delivering care; as well as attention for different domain of concerns of homeless people compared to healthcare providers, flexible programs and availability and support after death [19]</p> <p>Efforts to enhance access need to account for the symbolic and social boundaries that marginalised citizens’ experience, in addition to more obvious physical and institutional boundaries to accessing health services. [19]</p> <p>Findings raised the importance of talking to somebody else who would listen, and be understanding. Trust and confidentiality were often considered paramount. Less explicit though perhaps equally important was that the person who was listening respected the boundaries set by those disclosing. [22]</p> <p>It is the responsibility of the health service provider to demonstrate culturally responsive leadership and build governance structures and environments that ensure health professionals are encouraged, expected and able to respond to the needs of Aboriginal and Torres Strait Islander people effectively. The processes and supportive structures around health service delivery are equally as important as actual health outcome measures when determining the overall effectiveness of health service delivery. [23]</p>

	<p>Leaders should work to gain political buy-in and support. The problem of rough sleeping evokes a range of views about how individuals should be treated. As a group, they may not be afforded the same sympathies as other groups of patients who also have poor health outcomes. Local leaders can play a crucial role in developing a shared narrative – and a common purpose. This framing can set powerful expectations about how the local area will respond to meet the needs of people experiencing rough sleeping. [10]</p> <p>The King's Fund has published extensively on what makes for good system leadership, with distributed responsibilities and a culture of compassion and inclusion being key. Much of this work has focused on leadership across a health and care system and the importance of having a shared narrative, relationships built on trust, deep engagement of staff and communities and strong partnership working across organisational and professional boundaries.[10]</p>
<p>CMOC 6: In a context where healthcare services are delivered with a high degree flexibility in terms of appointment length, availability of walk-in appointments and self-referral, opportunistic add-on services such as vaccinations and screenings etc (C), practitioners and staff with expertise and experience (M) with the population group are able to anticipate (M) the common interventions that may be needed, to adapt (M) to the particular needs of the patient in front of them, and to use their expertise provide the treatment that is most needed in the current situation. As a result, patients' needs are identified (O) this becomes a new context in which patients experience less frustration and fear (M) because they do not have to fit into a mould of a health service which is difficult to navigate. As a further outcome, patients feel seen and understood (O) which again becomes a new context activating engagement from both ultimately leading to ongoing appropriate access to services over a course of treatment or on an ongoing basis as needed. A cyclical nature of an ongoing and trusting relationship is established and reinforced over multiple interactions.</p>	<p>Health care practitioners need to provide anticipatory guidance to reduce harm, prescribe medications at no or low cost, choose simple treatment regimens, and ease follow-up by offering walk-in appointments and care during evening hours. Health care workers should administer applicable vaccines at any available opportunity. Ask all youth about their immunization status. Advise how to access 'catch-up' or new vaccines. Better yet, be prepared to provide them 'on-the-spot' in any office setting. Keep treatment regimens as simple and straightforward as possible. Make follow-up procedures easier by having some walk-in appointments and evening hours. [24]</p> <p>Given the high rates of mental health diagnosis – including addictions – in SIY, at least an initial mental health screening should be integrated into various health care settings, focusing on suicide risk, self-harm and whether an individual is a risk to others. [14]</p> <p>Community based staff may also be in a position to advocate for homeless people in health care situations, due to their longer term relationship and thereby understanding of the individual's needs; "Three or four of these clients since I've started working here have been recognized by the workers at [harm reduction program]. They know to call us and that we'll follow through with helping with appointments and referrals to the [EoLC]" – Health care professional. [2]</p> <p>Findings raised the importance of talking to somebody else who would listen, and be understanding. Trust and confidentiality were often considered paramount. Less explicit though perhaps equally important was that the person who was listening respected the boundaries set by those disclosing. This was linked to the perception that health professionals were unable or unwilling to engage with the patients' understanding of who they are and how they relate to the worlds they inhabit. This emerged as fundamental to people's understanding of aetiology, the way they framed their problems, their decisions to seek help and the behaviours they adopted in living with chronic mental health issues. [25]</p> <p>A free clinic in Los Angeles was identified by youth as a model for best practice. Here youth appreciated staff that did not keep them waiting, listened and discussed health care options with them. Homeless youth</p>

were not 'hassled' when they lost their patient identification cards and were reissued cards without a lecture. In addition their preference for healthcare delivery was accommodated at sites already known to and frequented by homeless youth (such as drop-in shelters). [25]

The ability to develop an ongoing personal connection involved rapport with service providers, continuity of therapeutic relationships, and a usual source of care. [18]

Other participants mentioned having transport to clinics, and attending services that offered a comprehensive approach to healthcare for their needs. One example mentioned a location where medical and harm reduction services were co-located:

'It's easy to get to because they [key workers] come and collect you, and bring you to A, and get you back here. Because that's a big part of stopping you from getting there as well as the, is trying to get there so you know what I mean. It's easier to be picked up and brought ... so you have your [addiction] counselling or whatever, the doctor there and your one to ones [needle exchange] all in the one.' Drug using participant 2

The roles of peer advocates and key workers serve as important facilitators to reengagement with the primary healthcare system. It is not surprising then that the homeless group, drug users, sex workers and Traveller participants all mentioned these types of support as priorities. [13]

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