Interventions to improve physical health, mental health, and social outcomes for homeless and vulnerably housed populations

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Background

Homeless and vulnerably housed people experience a high proportion of physical, psychological and social health concerns compared to the general population (Hwang, Wilkins, Tjepkema, O’Campo, & Dunn, 2009). This population includes and is not limited to those who are unsheltered, emergency sheltered, provisionally accommodated, or at risk of homelessness (Canadian Observatory on Homelessness, 2017).

The disproportionate access to community based care and reliable social contexts to implement preventive health behaviours often results in disproportionately high acute care use by those experiencing homelessness (Saab, Nisenbaum, Dhalla, & Hwang, 2016). Evidence suggests that people in such living situations would benefit from tailored, patient-centred care within inter-professional teams using an integrated approach to community and social services (Coltman et al., 2015; Hwang & Burns, 2014; James, Hwang, & Quantz, 2005).

There is a range of interventions that cover various domains (e.g. care coordination, housing stability, social assistance, etc.) for homeless and vulnerably housed individuals. A recent systematic review, for example, published in the Lancet (Luchenski et al., 2017) identified interventions relevant for this population. Other studies have looked at the effectiveness of patient-centred care for homeless and vulnerably housed individuals within community services and social services (Coltman et al., 2015; Stephen W Hwang & Burns, 2014; James et al., 2005). To better understand the needs and resources available for this population, policymakers, practitioners and allied health professionals need high quality systematic reviews on the effectiveness and cost-effectiveness of interventions specific to this population. Effective knowledge translation strategies are needed to synthesize, disseminate and exchange sound findings. The objective of this review is to critically appraise the effectiveness and cost-effectiveness of interventions in housing, care coordination, income, mental health and addictions and women and youth specific interventions, for clinical and public health in relation to the homeless and vulnerably housed populations.

Policy relevance

Homelessness continues to grow worldwide and there is a need to synthesize effective interventions for homeless and vulnerably housed populations for primary care and public health practitioners. Policymakers and practitioners need high quality systematic reviews and knowledge translation on interventions for priority topics for homeless persons. Currently there are no published guidelines on the effectiveness and cost effectiveness of homeless care (in relation to the interventions mentioned above); our review aims to alleviate this gap in literature.
Objectives

The objective of this systematic review protocol is to guide the identification, appraisal and synthesis of the best available evidence on Delphi selected topics relevant to homeless health:

1. What are the effects of housing models (i.e. Housing First) on the health outcomes of homeless and vulnerably housed adults compared to usual or no housing?
2. What are the effects of case management and care coordination (i.e. non-intensive case management and peer support) on the health outcomes of homeless and vulnerably housed adults compared to usual or no care?
3. What are the effects of income assistance (i.e. direct and indirect) on the health outcomes of homeless and vulnerably housed adults compared to usual or no support?
4. What are the effects of mental health interventions (i.e. assertive community treatment, intensive case management and injectable antipsychotics) on the health outcomes of homeless and vulnerably housed adults compared to usual or no intervention?
5. What are the effects of addictions interventions (i.e. supervised consumption facilities, managed alcohol programs and pharmacological interventions for opioid use disorders) on the health outcomes of homeless and vulnerably housed adults compared to usual or no intervention?
6. What are the effects of women-specific interventions (i.e. motivational interview counselling, structured education sessions, therapeutic communities and peer support, and multimodal interventions) on the health outcomes of homeless and vulnerably housed women compared to usual or no intervention?
7. What are the effects of youth-specific interventions (i.e. place based interventions, youth and family focused therapy, parental monitoring and parenting skills, and street outreach and addictions services) on the health outcomes of homeless and vulnerably housed youth compared to usual or no intervention?

Existing reviews

Below we summarize systematic reviews that are relevant to our study population and explain the importance of our review.

Health interventions for people who are homeless (S. W. Hwang & Burns, 2014)

Hwang and Burns review outlines interventions to improve the health of homeless people with practical suggestions for the health care providers working with this population. From the 2 literature searches yielding 21 systematic reviews of interventions and 58 articles, they used 4 of 21 systematic reviews for meta-analysis. Housing provision with mental health support was reported to be superior to mental health care alone. Based on the results, authors concluded that interventions needed to be tailored to the circumstances of the homeless for better outcome. They found that the evidence base for the interventions for young people experiencing homelessness is relatively weak and cognitive behavioral methods
are most promising in this age group. There is sparsity of studies on the subjective perspectives of those experiencing homelessness themselves regarding the mental health care services provided and overall documented experiences were negative. According to the authors, the healthcare providers should understand that an effective strategy to address homelessness will need to include both interventions to improve the health of homeless individuals and larger-scale policy changes and interventions directed at these structural factors. The review did not include studies targeting income support and interventions specific to homeless women and families.

**Interventions to improve the health of the homeless** (Hwang, Tolomiczenko, Kouyoumdjian, & Garner, 2005)

Hwang, Tolomiczenko, Kouyoumdjian, and Garner performed a systematic review of interventions for populations experiencing homelessness and vulnerable housing provided by primary care services or to which patients experiencing homelessness and those who are vulnerably housed could be referred. In this study, 73 studies (RCT and longitudinal) were included. The authors categorized findings based on subgroups experiencing homelessness: interventions included people with mental illness, with substance use, with concurrent mental illness and substance abuse, with tuberculosis, youth, families and children, women, those at emergency departments or admitted to hospitals. The authors concluded that in comparison to usual care, there are improvements in health outcomes through the provision of coordinated treatment and support for adults experiencing homelessness with mental illness and/or substance abuse. This study was conducted over 10 years ago and notes the lack of research in the area of youth which we hope to address within our review.

**Effectiveness of interventions to reduce homelessness** (Munthe-kaas, 2016)

The authors of this systematic review looked at the effectiveness of housing and case management programs for people experiencing homelessness and those at-risk of becoming homeless. The main outcomes assessed were housing stability and reduction in homelessness. All relevant databases and sources of grey literature were systematically searched. This systematic review identified critically appraised and synthesized evidence from 43 randomized controlled trials. No restrictions were made in terms of language, location or time. Studies were searched until January 2016. The confidence of findings was assessed using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach, and included studies varied from very low to moderate confidence. The review found that critical time intervention, abstinence-contingent housing, non-abstinence-contingent housing with high intensive case management, housing vouchers, and residential treatment were effective compared to usual care.

**A review of the literature on the effectiveness of housing and support, assertive community treatment, and intensive case management interventions for persons with mental illness who have been homeless** (Nelson, Aubry, & Lafrance, 2007)

Nelson, Aubrey and Lafrance (2007) performed a literature review examining housing and support interventions for people with mental illness who are homeless. The review included 16 controlled outcome evaluations. The included studies met all the following criteria:
published in refereed journal, quantitative, included housing and support, assertive community treatment, and intensive case management, experimental or quasi-experimental research design, studies that focussed on people with mental illness who had a history of being homeless. Studies were searched until December 2004. Reported outcomes included: housing stability, quality, well-being, psychosocial and mental, clinical and service use. The authors found that the most effective interventions were those that combined housing and support, and the weakest was providing intensive case management alone. The scope of this study is limited to interventions for homeless populations that target housing and supportive interventions.

**Effectiveness of interventions to improve the health and housing status of homeless people: a rapid systematic review.** (Fitzpatrick-Lewis et al., 2011)

Fitzpatrick-Lewis and colleagues (2011) conducted a rapid systematic review to examine interventions that improve the health and housing status of homeless people. Included studies (n=84) had to examine the effectiveness of an intervention to improve the health and healthcare utilization of people who were homeless, marginally housed, or at risk of homelessness, and had to be published between 2004 and 2009. Interventions were categorized as those for people with mental illness, substance abuse, concurrent mental illness and substance abuse, people with HIV, for homeless and runaway youth, homeless women, families and children. This rapid review synthesizes existing evidence on interventions that improve health, housing status and access to health care for homeless populations. Our review will assess the effectiveness of interventions on a wider scope of outcomes.

**How can health services effectively meet the health needs of homeless people?** (Wright & Tompkins, 2006)

Wright and Tomkins (2006) review and synthesize evidence on the effectiveness of health care interventions for homeless populations. The authors searched all main databases (Medline, EMBASE, CINAHL, PsychINFO and Cochrane), as well grey literature and expert opinion. The search was not limited to language or geography, and publication dates searched ranged from 1980-2003. The authors did not conduct a meta-analysis of data. As such, the articles were synthesized by recurring themes: morbidity, mortality, primary care provision, primary prevention interventions, management of drug dependence, medically supervised injecting centres, sexual health promotion, management of alcohol dependence, and management of mental ill-health. Each theme described relevant interventions and linked to the main diseases common among the population. Included studies were not critically appraised for quality or confidence.

There is currently one systematic review of systematic reviews that evaluates interventions for marginalized and excluded populations (Luchenski et al., 2017). Although this review covers some of our intended topic areas, to our knowledge there is currently no published systematic review covering all of our specified priority topics. Our review will cover a broad range of interventions from Housing interventions, Mental Health and Addiction, Care
coordination, to Income Assistance and Women and Youth specific interventions. There is substantial research demonstrating that people experiencing homelessness and those who are vulnerably housed benefit from receiving tailored care from inter-professional teams with an integrated approach to community and social services (Coltman et al., 2015; Stephen W Hwang & Burns, 2014; James et al., 2005). It is important to synthesize an evidence based review looking at the effectiveness and cost effectiveness of a range of interventions for populations who experience homelessness and vulnerable housing in order to facilitate the provision of appropriate care and knowledge translation and policies within this area.

**Intervention**

To study these interventions we have broken them down into five priority topic categories. These 5 priority topic categories were selected from a Delphi Consensus in Canada using 76 persons with lived homeless experience and 84 practitioners (Shoemaker et al., 2018). We scoped literature using Google Scholar and PubMed to determine a list of interventions and terms relating to each of the 5 Delphi priority topic categories. Five priority topic working groups, with medical practitioners, allied health professionals in each area of interest, and community scholars (people with lived experience) were formed to advise this initial list of interventions. Keeping the feasibility of this project in mind, working group consensus based on literature was used to inform the final selection of interventions to be included in this review. Please note that the controls will vary based on the studies to be included in the review; we anticipate for them to be standard intervention, no intervention or alternative intervention.

**Interventions for mental health and addictions:**

We will assess two promising interventions relevant for severe mental illness, conditions that substantially limit major life activities due to functional impairment (SAMHSA’s National Registry of Evidence-based Programs and Practices, 2016).

1. **Assertive community treatment (ACT)**

   Assertive community treatment (ACT) offers team based care by a multidisciplinary group of healthcare workers in the community. This team has 24 hours per day, 7 days per week availability and provides services tailored to the needs and goals of each service user (Coldwell & Bender, 2007; De Vet et al., 2013). There is no time limit on the services provided, but transfer to lower intensity services is common after a period of stability (Homeless Hub, n.d.). Ten service users per case manager are typical, and services are offered in a natural setting such as the workplace, home or social setting (De Vet et al., 2013). ACT is offered for persons with serious mental illness, often schizophrenia or bipolar disorder, accompanied by a history of multiple psychiatric hospitalizations and functional impairment.

2. **Intensive case management (ICM)**

   Intensive case management (ICM) is offered to persons with serious mental illness, but typically fewer hospitalizations or less functional impairment, and for people experiencing
addictions (Dieterich et al., 2017). ICM helps service users maintain housing and achieve a better quality of life through the support of a case manager that brokers access to an array of services. The case manager accompanies the service user to meetings and can be available for up to 12 hours per day, 7 days a week. Case managers for ICM often have a caseload of 15-20 service users each (De Vet et al., 2013). A form of time limited ICM known as critical time intervention (CTI) will also be examined for effectiveness and cost-effectiveness in improving housing and health outcomes of homeless people experiencing mental illness. CTI is defined as a service that supports continuity of care for service users during times of transition; for example, from a shelter to independent housing or following discharge from a hospital. This service strengthens the person’s network of support in the community (Silberman School of Social Work, 2017). It is administered by a CTI worker and is a time-limited service, of usually a period of 6-9 months.

Pharmacological interventions for psychosis: injectable antipsychotics.

The effectiveness and cost-effectiveness of injectable antipsychotics for those experiencing psychosis will also be examined. This is endorsed as a first line of treatment for psychosis of patients living in precarious situations as they often have poor ability to follow through with oral treatment plans (Llorca et al., 2013). As such it is a viable treatment option for homeless individuals who experience a psychotic illness.

We will assess 3 interventions relating to addictions

3. Supervised consumption facilities

Supervised consumption facilities are defined as facilities where people who use intravenous drugs can inject pre-obtained drugs under medical supervision” (Drug Policy Alliance, n.d.) and they are frequently used as a safe space for people experiencing homelessness and those who are vulnerably housed and substance users.

4. Managed alcohol programs

Alcohol use disorders are more frequent among people experiencing homelessness and those who are vulnerably housed (Fazel, Khosla, Doll, & Geddes, 2008). It is important to ensure that there are helpful interventions in place to assist people living with alcohol use disorders for whom discontinuation of alcohol is not feasible. We will look at the effectiveness and cost-effectiveness of managed alcohol programs (MAP) targeting people experiencing homelessness and those who are vulnerably housed. A MAP typically includes shelter, medical assistance, social services and the provision of regulated alcohol to help residents manage alcohol dependence (Shepherds of Good Hope Foundation, n.d.). This programme is provided by professional staff and nurses.

5. Pharmacological interventions for opioid use disorders

The effectiveness and cost-effectiveness of opioid therapy medications including methadone, buprenorphine/naloxone, diacetylmorphine, naloxone and naltrexone (British Columbia Centre on Substance Use & The Canadian Research Initiative in Substance, 2017) methadone and injectable diacetylmorphine (heroin) (Haasen et al., 2007) have been documented in general population studies.
Interventions for care coordination and case management:

Case management is a service where clients are assigned to case managers who assess, plan and facilitate access to health and social services necessary for the client’s recovery (De Vet et al., 2013). We will examine two specific areas of interventions for effectiveness and cost effectiveness relevant for the homeless population.

1. Non-intensive case management

The nomenclature for case management is heterogeneous (Lukersmith, Millington, & Salvador-Carulla, 2016) within the literature, and as such we have defined non-intensive case management to include the terms clinical case management and standard case management. Both clinical case management and standard case management allow for the provision of an array of social, healthcare, and other services with the goal of helping the client maintain good health and social relationships. This is done by “including engagement of the patient, assessment, planning, linkage with resources, consultation with families, collaboration with psychiatrists, patient psychoeducation, and crisis intervention” (Kanter, 1989). Non-intensive case management is provided to homeless individuals with complex health conditions and is time limited.

2. Peer support

Peer support includes the sharing of knowledge, experience, emotional, social or practical help by or with an individual who has experienced a similar background to the service user (Mead, Hilton, & Curtis, 2001). Peer support workers may be termed differently in different settings (i.e. mentors, recovery coaches, life coaches etc.) but all administer support to individuals who are newly homeless or on a treatment plan or path to recovery from substance use or homelessness (Barker & Maguire, 2017).

Interventions for income:

There are two main interventions for income that we will focus on (Dalhousie Legal Aid Services, 2009).

1. Direct income assistance

Direct income assistance consists of benefits and programs offered by individuals or institutions that increase income with the goal of improving socioeconomic status. Direct income assistance can be categorized depending on the regularity of the intervention (i.e. provision of income support on a regular or irregular basis). Some examples include: government assistance (i.e. income supplement program (Brownell et al., 2016), charity donation or panhandling (Poremski, Distasio, Hwang, & Latimer, 2015), provision of cheques, tax-benefits or cash transfers. Cash transfers are a form of financial aid offered on a conditional or unconditional basis (Lagarde, Haines, & Palmer, 2009). In Canada, this intervention also includes support from governmental social assistance programs such as provincial or federal benefits programs (Government of Canada, 2017). Further examples of direct income assistance include support finding and maintaining employment or offering
information on income benefits or financial literacy/debt management counseling (Abbott & Hobby, 2000). Direct income assistance is provided by healthcare professionals (social workers or practitioners) and non-professionals (community or volunteer organizations) and is provided to people experiencing homelessness, at risk of homelessness, are vulnerably housed, have a low income or who are otherwise socioeconomically disadvantaged.

2. Cost reduction support/Indirect income assistance

The second intervention is cost reduction support, a form of indirect income assistance. This type of intervention includes benefits or programs that improve access to basic living necessities. Examples of specific interventions include the provision of food, daycare, and fuel or rent supplements (Gruber, Chutuape, & Stitzer, 2000; Power, Little, & Collins, 2015; Whittle et al., 2015). This intervention is focused on addressing critical social determinants of health that a person would otherwise be paying for out of their basic income. It is provided by social service, healthcare professionals or non-professionals (community volunteers or family members) and provided to for people experiencing homelessness, at risk of homelessness, are vulnerably housed, have a low income or who are socioeconomically disadvantaged.

Indirect income assistance is commonly a time limited service during a period of acute need.

Interventions for women and youth:

Our review will examine the following interventions that are women focused:

1. Motivational interview counselling

A motivational interview (MI) is a counselling approach based on empathy and self-efficacy which can be a single session or multiple sessions with a clinical psychologist or other trained health workers. It has the goal of building self-confidence and developing independence (Chanut, Brown, & Dongier, 2005).

2. Structured education sessions

Often homeless women may not know what resources are available to them or they may lack the confidence to seek information or help. We will examine the effectiveness and cost-effectiveness that the structured education sessions (SES) have in alleviating this gap in knowledge. The sessions may be in group settings or one on one, they can be given actively or passively and they are time limited (Speirs, Johnson, & Jirojwong, 2013).

3. Therapeutic communities and peer support

As many women without a home may be victims of abuse and violence it is important to address this issue. We will examine the effectiveness and cost-effectiveness of therapeutic communities (TC) which isolate individuals from outside harms and have a trauma-focused recovery approach (Luchenski et al., 2017). This time limited intervention consists of a community of professionals that provide education and services to help attain housing, employment, and self-sufficiency (Sacks, Banks, McKendrick, & Sacks, 2009).

4. Multimodal interventions
Certain interventions are multimodal as they incorporate two or more intervention types or adapt well-established interventions in order to specifically meet the needs of women and families. We will focus on two multimodal interventions geared towards women: case management with motherhood services and family critical time intervention (FCTI) which incorporates family-adapted housing with time-limited case management to connect families with community services. Case management was described above but will evaluated separately with motherhood services for women. FCTI has been shown to reduce behavioural problems and school troubles for preschool and school-aged children from families experiencing homelessness and those who are vulnerably housed (Shinn, Samuels, Fischer, Thompkins, & Fowler, 2015).

Our review will examine the following interventions that are youth focused:

1. **Place based interventions**

Youth, especially when homeless, can experience social isolation. place based interventions (PBI) take into account the social and physical aspects of an environment to engage community members (Centre for Community Child Health, 2011).

2. **Youth and family focused therapy interventions**

There are many forms of therapy that have been shown to help youth who have experienced adverse childhood experiences including individual or group cognitive behavioural therapy (CBT) and family based therapy (FBT). CBT takes into account emotional, familial and peer influences to build self-control, self-efficacy and reduce negative behaviours (Sommers, Blendon, Orav, & Epstein, 2016). FBT which focuses on intrapersonal factors and re-establishing connections; it seeks to understand individual behaviour and interactions between the individual and their family (Gaetz & Redman, 2016; Tanner-Smith, Wilson, & Lipsey, 2013).

3. **Parental monitoring and parenting skills interventions.**

In addition to individual and family therapy, there are also parental monitoring intervention (PMI) programs providing parenting skills and empowering parents of adolescents which have been shown to reduce risk-taking behaviours and promote protective behaviours among their adolescent children (Stanton et al., 2004).

4. **Street outreach and addictions services**

As youth who are experiencing homelessness and those who are vulnerably housed are often on the streets and may not engage as frequently in programs offered for adults experiencing homelessness and those who are vulnerably housed, it is important to examine street outreach and addictions services specific to youth. These services consist of outreach workers engaging youth living on the street to enhance their wellbeing through programs such as mobile harm reduction programs (Luchenski et al., 2017). Providing strengths-based outreach and engagement interventions can promote a sense of personal control and link youth to needed community-based services in order to help them exit street life and improve mental health outcomes (Slesnick, Zhang, & Brakenhoff, 2017).
Interventions for housing:

1. Housing First

Many interventions have emerged to help people who are homeless obtain and maintain stable housing. It is especially difficult for people who are homeless and struggling with mental illness and/or substance use to enjoy housing stability. In the past, housing intervention models prioritized the treatment of mental illness or substance use prior to the provision of housing. This course of treatment changed with the emergence of the newer housing models developed for homeless populations experiencing mental illness and substance use (Goering et al., 2011). The ability to access housing is not contingent on sobriety/abstinence or treatment adherence; as such, the priority for this model is to provide an individual with both housing, as well as supports such as ACT or ICM. This model emphasizes the role housing plays in improving health and social outcomes for this population. The supportive treatment (usually ACT) is provided by a multidisciplinary team. The goal of the Housing First model is to provide permanent housing while allowing the person to gain access to treatment services. Most studies evaluating the effectiveness of this housing model compared the intervention with no housing or with treatment as per usual.

Population

Our review will focus on homeless or vulnerably housed individuals. This will include anyone without stable, permanent, appropriate housing, or the immediate prospect, means and ability of acquiring it (Gaetz, Dej, Richter, & Redman, 2016). Unstable housing situations are often the result of systemic or societal barriers, lack of affordable and appropriate housing, a person’s financial, psychological, cognitive, behavioural or physical challenges, or racism and discrimination (Canadian Observatory on Homelessness, 2017). We recognize the range of physical living situations encompassed by this definition, including those who are unsheltered, emergency sheltered, provisionally accommodated, or at risk of becoming homeless. We will also consider evidence from other marginalized populations.

Furthermore, we will include studies from high-income countries to better reflect intervention provision or outcome variability similar to Canada’s own resource availability and gross national income. As such, studies conducted in low-middle income countries will be excluded. We will not perform a sub-group analysis on indigenous peoples as there is a separate systematic review being conducted on this population. However, we will not exclude studies that include this group as part of their overall study populations.

Outcomes

Studies must use validated measures and must report at least one of the following:

- Perceived quality of life
- Cognition and mental health outcomes
- Social outcomes: e.g. quality of relationships, perceived self-efficacy, social inclusion, function,
- Mortality
• Morbidity/physical health: including severity of chronic conditions and self-reported disability.
• Family stability and supportive environments
• Protection from violence
• Occurrence of significant crises
• Service user satisfaction
• Substance use stabilization
• Adverse drug reactions (anti-psychosis or opioid management treatment)
• Appropriate health, social and housing service use, utilization and access
• Income security
• Employment

Study designs

All study designs must evaluate the effects of an intervention, preferably with an intervention and control group with measured outcomes. While we aim to primarily include randomized control trials, we are aware that this type of study may not always be available. For this reason, we will also consider other study designs as recommended by the Cochrane Effective Practice and Organization of Care group. Additional study designs we will consider are: non-randomized control trials, controlled before-after studies, and interrupted time series studies and repeated measures studies (Effective Practice and Organisation of Care (EPOC)-Cochrane, 2015).

Non-randomized trials place participants in different intervention groups.

Controlled before-after studies make observations before and after an intervention is implemented, in both the intervention and control group. We will exclude studies where data collection is not simultaneous between intervention and control sites, and studies that did not use the same methods of measurement.

Interrupted time series is a study design in which observations are made at multiple time points before and after an intervention. The aim is to figure out whether the intervention has a significant effect over time. We will exclude any studies that do not provide a definite time when the intervention occurred and do not have at least three data points before and three points after the intervention.

No qualitative studies will be included in this review.

References


Goering, P. N., Streiner, D. L., Adair, C., Aubry, T., Barker, J., Distasio, J., ... Zabkiewicz, D.


### Review authors

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

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<tr>
<td>Email</td>
<td><a href="mailto:tabdalla@bruyere.org">tabdalla@bruyere.org</a></td>
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<tr>
<th>Name</th>
<th>Vanessa Brcic</th>
<th>Title</th>
<th>Clinical Instructor</th>
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<td>Affiliation</td>
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<tr>
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<tr>
<th>Name</th>
<th>David Ponka</th>
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<tr>
<td>Affiliation</td>
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<tr>
<td>Christine Lalonde</td>
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<td>University of Ottawa</td>
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<tr>
<td>Terry Hannigan</td>
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<td>Bruyere Research Institute</td>
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<tr>
<td>Esther Shoemaker</td>
<td>Researcher</td>
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<td>Alain Mayhew</td>
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<td>Health Economist</td>
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<td>1053 Carling Avenue</td>
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</table>
Roles and responsibilities

- **Content**: KP, VS, GB, VB, AA, Tim A, CK, DP, GS, SM are or have been involved in various research projects for vulnerable populations. VS, GB, Tim A, GS, AA, SM especially, have experience in various types of research projects for people experiencing homelessness or who are vulnerably housed. KT is a health economist with The Ottawa Hospital. CL was involved in the community scholar program developed by CK that aims to engage people with lived experience in the research process.

- **Systematic review methods**: KP, PT, TA, KT, AM have published systematic reviews. KP, PT, KT and AM has extensive experience authoring systematic reviews for developing evidence-based guidelines. PT have authored systematic reviews of educational, health, legal and social strategies to reduce inequitable inequalities in health in individuals and populations. Tim A. has published reviews on housing.

- **Statistical analysis**: PT, KT provides statistical consultation.

- **Information retrieval**: CM, OM, VK, SM, has experience in retrieving and assessing scientific information.

Funding

We received funding from the Inner City Health Associates.

Deliverables deadline: 28 February 2019
Potential conflicts of interest

One author (VS) has declared potential conflict in her involvement with the At Home/Chez Soi project.

Preliminary timeframe

Note, if the protocol or review is not submitted within six months and 18 months of title registration, respectively, the review area is opened up for other authors.

- Date you plan to submit a draft protocol: 1 June 2018
- Date you plan to submit a draft review: 30 July 2019