

# **Risk Factors for Negative Outcomes among Social Assistance Recipients A Rapid Review**

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## Key Messages

1. Ontario Works (OW) recipients who need intensive support to maintain their housing or OW assistance are not identified at the time of initial assessment. As a result, clients may experience negative outcomes (e.g., eviction, emergency shelter use) before being referred to the transitional caseworker program, which provides community-based intensive case management.
2. One high quality grey literature report was included in this review. The report outlined modelling results predicting homelessness among a representative sample of social support recipients who were homeless/at risk of homelessness in Australia. Homelessness is only one outcome of interest for Human Services; however, the literature search did not identify papers related to the other outcomes of interest (e.g., eviction, prolonged period on social assistance, self-sufficiency).
3. *Risk factors* for homelessness included those who: are male, aged 45+ years, unemployed, not in the labour force, experienced violence in the last six months, have ever been homeless, have increased alcohol consumption, have increased cigarette consumption, have chronic health conditions and increased area-level average unemployment rate.
4. *Protective factors* for homelessness included: being married or in a de facto relationship, living with children, diagnosed with either bipolar or schizophrenia and increased level of social support.

5. An assessment tool which includes the above named factors could be pilot-tested to determine its usefulness/ability to identify clients who may benefit from immediate support from a transitional caseworker. A program data review and environmental scan of other municipalities should be conducted prior to the phased pilot test, to inform program decisions.

## **Executive Summary**

Recipients of the Ontario Works (OW) program who may need intensive support to maintain their housing or OW assistance are not identified during their initial assessment. Rather, these clients experience negative outcomes (such as eviction, emergency shelter stays) before being identified as a potential client for the transitional caseworker (TCW) program, which provides intensive case management in the community. Early identification of clients in need of intensive support may prevent these negative outcomes.

This Rapid Review addressed the question “Among applicants for social assistance, what are the most influential demographic, social and structural factors that lead to negative outcomes (such as housing instability, eviction, homelessness, extended period on social assistance, lack of self-sufficiency)”.

A search of the published literature, review of relevant websites and contact with experts in the field yielded 13 documents, which were assessed for relevance. Two reports were relevant and critically appraised. One report was of high quality and included in the review.

The included paper outlined results of “Journeys Home”, a longitudinal survey of homeless/at risk of homelessness income support recipients across Australia. The paper outlined a model predicting the probability of homelessness using individual and structural factors. The results were extracted based on the “CHARMS” checklist for appraisal and data extraction for systematics reviews of prediction modelling studies.

*Risk factors* for homelessness included those who: are male, aged 45+ years, unemployed, not in the labour force, experienced violence in the last six months, have ever been homeless, have increased alcohol consumption, have increased cigarette consumption, have chronic health conditions and increased area-level average unemployment rate.

*Protective factors* for homelessness included: being married or in a de facto relationship, living with children, diagnosed with either bipolar or schizophrenia and increased level of social support.

Homelessness is only one outcome of interest to Human Services. However, the literature search did not identify papers which included other potential outcomes of interest, such as eviction, housing instability, prolonged periods on social assistance etc.

## **Recommendations**

- Conduct a data review of current TCW program clients including demographic characteristics, risk factors and outcomes.
- Conduct an environmental scan with other jurisdictions related to use of early intervention assessment tools to identify high needs clients for intensive support programs.
- Create an assessment tool based on the statistically significant individual factors outlined above. Consult with Human Services staff and current OW clients to inform wording of assessment tool.

- Human Services leadership to determine the role/team to conduct the assessment based on structural and organizational considerations.
- Develop a phased pilot test evaluation plan.
- The full-scale implementation of an assessment tool would be determined by the Human Services management team, based on the results of the pilot test and financial, resource and operational considerations.

## Issue

New applicants to the Ontario Works (OW) program are assessed for eligibility and assigned to a regular OW caseworker for on-going case management. OW clients who have a history of homelessness or who are struggling to maintain their housing or OW assistance can be referred by their OW caseworker to a transitional caseworker (TCW). The TCWs provide intensive supports in the community to help clients maintain housing and support client-identified goals (e.g., addressing legal issues, family reunification). However, OW clients who need this intensive support are not identified at the time of their initial assessment and, as a result, may experience negative outcomes (such as eviction, emergency shelter stays) before being referred for more intensive support. Earlier identification of those who need intensive support could lead to improved outcomes, reduced frustration and stress for clients and caseworkers, and increased efficiency in resource use within Human Services.

“Daniel” applied for OW in 2001. He was struggling with alcohol addiction and had a history of repeat incarceration and periods of homelessness. In September 2014, Daniel was referred to a TCW. Over the next year, with the help of the TCW, Daniel was able to obtain all of his identification, found suitable housing at a rooming house, connected with mental health supports from the Canadian Mental Health Association, was approved for support from the Ontario Disability Support Program and was able to begin saving money in an RRSP. Daniel reports being happy, housed and “feeling like he has gotten back some of his dignity.”

This research review seeks to identify critical factors that, upon intake assessment, would warrant immediate support of a transitional case worker among those at risk for negative outcomes such as eviction, homelessness or negative health issues.

## **1 Context**

Annually, there are approximately 10,000 newly approved cases in the Ontario Works (OW) program in Peel. The average monthly caseload for the program is 17,000 cases. On average, people receive OW support for 18 months (ranges from one month to five or more years). The OW program is supported by 135 regular caseworkers and eight transitional caseworkers (TCWs). TCWs maintain a smaller caseload than regular caseworkers (50 vs. 200+ active cases) to allow for more intensive community-based support (e.g., more frequent contact, attending visits with clients).

Human Services is interested in changing the current referral pathways for OW clients into the TCW program. This would include implementing new referral criteria for identification of clients in need of intensive supports at the time of the initial OW assessment. The result would be that regular OW caseworkers would be able to focus on lower needs clients and TCWs would automatically be assigned to support higher needs clients, which could prevent negative outcomes such as use of emergency shelters, eviction, or negative health events.

The new assessment criteria would need to be relatively short (due to the volume of other information required to assess eligibility for OW) and easily administered over the telephone. Given the potential vulnerability of the clients, these questions will also need

to be as minimally invasive as possible to avoid discomfort and stress to clients who do not have a relationship with the assessor.

## **2 Conceptual Framework**

A conceptual model (Appendix A) was developed based on a 2015 Australian position paper which outlined the individual characteristics and structural factors associated with homelessness (one outcome of interest to Human Services).(1)

## **3 Literature Review Question**

The question addressed in this research review is “Among applicants for social assistance, what are the most influential demographic, social and structural factors that lead to negative outcomes (such as housing instability, eviction, homelessness, extended period on social assistance, lack of self-sufficiency)”.

**In PICO format:**

**Population** - applicants for social assistance

**Exposure** - demographic, social and structural factors

**Outcome** - negative outcomes such as housing instability, eviction, homelessness, extended period on social assistance, lack of self-sufficiency

## **4 Literature Search**

Based on the population, exposures and outcomes of interest, a list of synonyms was developed to inform the terms for the literature search. The Public Health Librarian

conducted a search of Health Evidence, Medline and Sociological Abstracts for all years available. Synthesized reviews and single studies (non-synthesized) were identified in the search. The title and abstract of the single studies were reviewed by two individuals (NR and SG) to determine relevance to the population, exposures and outcomes of interest. A citation search was conducted to find synthesized publications which cited the relevant single studies. Team members searched relevant websites for grey literature (i.e., Canadian Homelessness Hub, Canadian Library of Parliament). The Public Health Librarian identified grey literature reports of interest through a search of DuckDuckGo Inc. (searching risk factor\* and social assistance or welfare). Four experts in the area of housing and/or homelessness were contacted to identify potentially relevant literature.

## **5 Relevance Assessment**

Based on the research question, the following inclusion and exclusion criteria were applied to the synthesized and grey literature identified during the search.

The studies were assessed based on the following criteria:

- Inclusion criteria: population of interest (social assistance recipients); English language; no date range specified; any risk factors described; and any outcomes described (social or health).
- Exclusion criteria: disability support recipients; subpopulation of social assistance recipients only.

Four individuals reviewed the titles and abstracts of the identified papers to determine relevance. Disagreements were resolved through discussion.

## **6 Results of the Search**

A total of seven synthesized papers and six grey literature reports were identified and reviewed for relevance. Of the 13 documents, 10 were deemed not relevant based on the inclusion/exclusion criteria, one was retracted by the journal and two were deemed to be relevant and were assessed for quality.

The literature search conducted did not identify any papers related to other potential outcomes of interest to Human Services, aside from homelessness.

## **7 Critical Appraisal**

Four individuals independently critically appraised the two grey literature reports using the AACODS (Authority, Accuracy, Coverage, Objectivity, Date, Significance) checklist from Flinders University. Disagreements were resolved through discussion. One report could not be assessed for quality because there was no information about the methodology (after confirmation that further information could not be provided by author). The other report was deemed to be of high quality, receiving a “yes” rating for all domains of the tool. One grey literature report was included in this review.

## **8 Description of Included Studies**

“Entries and Exits from Homelessness: A Dynamic Analysis of the Relationship Between Structural Conditions and Individual Characteristics” by Johnson et al (2015), describes the associations between structural factors, individual characteristics and

homelessness.(2) The study results are based on analysis of a representative sample of 2,719 income support recipients across 36 distinct locations in Australia who were exposed to homelessness or housing insecurity (as defined by administrative records). Data were collected longitudinally through face-to-face interviews initially and at six-month intervals at five additional time points beginning in 2011. The response rate was 62% for the initial interview and ranged from 83 to 91% for follow-up interviews. Random effects logistics regression models provide probabilities for three dependent outcomes: homelessness, entries into homelessness and exits from homelessness.

Results were extracted only for the model estimating homelessness. The elements to be extracted were selected based on the CHARMS (**C**hecklist for Critical **A**ppraisal and Data Extraction for Systematic **R**reviews of Prediction **M**odelling **S**tudies) checklist for critical appraisal and data extraction for systematic reviews of prediction modelling studies.(3)

## **9 Synthesis of Findings**

This section includes only statistically significant associations from the multivariable model between individual and structural factors and homelessness.

### **Demographic characteristics impact homelessness**

Males are six percentage points more likely to be homeless than females. Respondents aged 45 years and older are 7.1 percentage points more likely to be homeless than those 15 to 20 years of age. Respondents who were married or in de facto relationships were 8 percentage points less likely to be homeless compared to those who were not.

Those with children living with them were 8.4 percentage points less likely to be homeless compared to those without resident children.

### **Labour force status impacts homelessness**

Those who are unemployed were 4 percentage points more likely to be homeless compared to those who were employed. Those who were not in the labour force (i.e., unable or unwilling to provide labour during the reference time period) were 5.3 percentage points more likely to be homeless compared to those who were employed.

### **Violence, history of homelessness and incarceration impact homelessness**

Those who have experienced violence in the last six months were 3.1 percentage points more likely to be homeless compared to those who did not experience violence. Those who were incarcerated in the last six months were 9.7 percentage points more likely to be homeless compared to those who had not been incarcerated. Those who have ever been homeless (primary homelessness meaning ever without accommodation) were 7.1 percentage points more likely to be homeless compared to those who had never been homeless (primary homelessness).

### **Substance use impacts homelessness**

A one unit increase in the average number of alcoholic drinks consumed per day resulted in a 0.2 percentage point increase in homelessness. A one unit increase in the average number of cigarettes per day also led to a 0.2 percentage point increase in homelessness.

### **Health status impacts homelessness**

Having a chronic health condition resulted in a 3.1 percentage point increase in likelihood of being homeless compared to those without a chronic condition. Those ever diagnosed with bipolar or schizophrenia were 7 percentage points less likely to be homeless compared to those who had never been diagnosed. The authors explain this finding by speculating that those diagnosed are more likely to be receiving treatment and care, which reduces their risk of being homeless compared to those who have undiagnosed bipolar or schizophrenia.

### **Social support impacts homelessness**

A one unit increase in the social support index results in a 3.7 percentage point decrease in likelihood of homelessness.

### **Unemployment rate impacts homelessness**

A one unit increase in the average unemployment rate in the area resulted in a 0.7 percentage point increase in the likelihood of homelessness.

**Table 1: Summary of Findings**

<b>Homelessness factors</b>	<b>Risk factors (with percentage point increase)</b>	<b>Protective factors (with percentage point decrease)</b>
Demographic and personal	<ul style="list-style-type: none"> <li>• Male (6% pts)</li> <li>• Aged 45 + (7.1% pts)</li> <li>• Unemployed (4% pts)</li> <li>• Not in labour force* (5.3% pts)</li> <li>• Experienced violence in last six months (3.1% pts)</li> <li>• Incarcerated in the last 6 months (9.7% pts)</li> <li>• Ever been homeless (7.1% pts)</li> </ul>	<ul style="list-style-type: none"> <li>• Married or de facto relationship (8% pts)</li> <li>• Living with children (8.4% pts)</li> </ul>
Health and social status	<ul style="list-style-type: none"> <li>• One unit increase in alcohol consumption (0.2% pts)</li> <li>• One unit increase in cigarette use (0.2% pts)</li> <li>• Chronic health conditions (3.1% pts)</li> </ul>	<ul style="list-style-type: none"> <li>• Ever diagnosed with either bipolar or schizophrenia (7% pts)</li> <li>• One unit increase in social support status (3.7% pts)</li> </ul>
Structural	One unit increase in average unemployment rate (0.7% pts)	

\* Not in the labour force is defined as unable or unwilling to offer or supply labour during the reference time period.

## 10 Applicability and Transferability

On April 7, 2016 an Applicability & Transferability meeting was held to discuss the findings of this review and the draft recommendations. The meeting included managers, supervisors and frontline staff/caseworkers from across Human Services, representing

the Assessment Unit, Ontario Works and the Transitional Caseworker program. No one was present to represent the Housing perspective. A detailed summary of the discussion can be found in Appendix E.

The draft recommendations are acceptable in the current political climate, given the new 20-year Regional strategic plan, with a mission of “Working with You” and a priority related to reducing poverty. How these recommendations would fit within upcoming changes to the federal and provincial social support programs (e.g., guaranteed income level for all Canadians) would need to be considered. Staff recommended the team:

1. Conduct an environmental scan to determine how other jurisdictions assess clients for intensive case management.
2. Conduct a review of the demographic characteristics and risk factors of current TCW clients to inform the development of a screening intake tool.

Participants felt that clients would be willing to complete the assessment tool, however, the content and wording should be tested with clients to ensure appropriateness and acceptability. The impact of any change in process would need to be assessed in terms of impact on timeliness of financial support, which is the primary concern of clients. There was concern that clients may answer the assessment tool questions “correctly” to get the more intensive supports that they may desire.

The role of administering the pilot assessment tool was discussed for three groups:

1. Assessment Unit - Clients are willing to disclose personal information on the telephone due to anonymity, however, the assessments already take about one hour to complete and clients may not even be eligible for OW.
2. OW caseworkers - During the intake meeting with an OW caseworker, eligibility would be determined and there is more time to complete the assessment tool. Depending on the outcome of the assessment, clients would not necessarily need to know that they had been referred to the more intensive support of a TCW.
3. Transitional caseworkers - Currently they do not do initial assessments for OW assistance (which would lead to an increased workload) and this would keep them in the office more often. It would also change the nature of the relationship with clients (i.e., responsible for determining eligibility for financial support).

The process and timing for the assessment would need to be determined by leadership.

The need for intensive support in the community may overwhelm the existing resources. Therefore, the process for both the pilot and implementation would need to be phased in carefully to ensure continuity of service for clients. It will be important to maintain an emergency referral process for clients who need to be directly assigned a TCW (e.g., from shelter, victims of family violence).

The assessment tool will need to be carefully developed to ensure that it is acceptable to clients, easy to administer for staff, specific to the types of clients seen (families, singles) and weighted to prioritize clients with multiple risk factors based on the

evidence. A technological process will need to be implemented to score clients upon assessment and categorize the type of support required.

Before pilot testing the assessment tool, the process and outcomes to be achieved would need to be clearly articulated. A phased pilot was recommended so as not to adversely impact service for clients. Clear communication to staff related to roles and process will be required.

## **11 Recommendations**

- Conduct a data review of current TCW program clients including demographic characteristics, risk factors and outcomes.
- Conduct an environmental scan with other jurisdictions related to use of assessment tools to identify high needs clients for intensive support programs.
- Create an assessment tool based on the statistically significant individual factors outlined above. Question wording would be based on the survey tool used by Johnson et al (2015). The significant structural factor (i.e., area unemployment rate) will not be included, as all Peel region residents would be exposed to the same area-level rate. Each item for the tool would be scored +/- depending on whether the factor was positively or negatively associated with homelessness (e.g., a higher positive score would indicate a higher risk for homelessness). Consider consultation with an expert in the area of tool development to determine whether weighting of factors is required and how to develop weights.

- Consult with Human Services staff and current OW clients to inform wording of assessment tool.
- Human Services leadership will determine the role/team to conduct the assessment based on structural and organizational considerations.
- Develop a phased pilot test evaluation plan. This may include a pilot test of the assessment tool for a period of one month for all new Ontario Works applicants (voluntary participation). Administrative information about the tool will be collected, including the client identification, number of refusals, length of time to complete, questions or concerns voiced by clients etc. The assessment tool results will be linked to client outcomes (e.g., at 3- or 6-months post pilot) to determine which client factors are predictive of negative outcomes in the Peel context.
- The full-scale implementation of an assessment tool would be determined by the Human Services management team, based on the results of the pilot test and financial, resource and operational considerations.

## References

1. Johnson, G., Scutella, R., Tseng, Y. and Wood, G. (2015) Examining the relationship between structural factors, individual characteristics, and homelessness, Australian Housing and Urban Research Institute (AHURI) Positioning Paper No.161. Melbourne: Australian Housing and Urban Research Institute. Available from: <<http://www.ahuri.edu.au/publications/projects/p53042>>. Accessed on: February 18, 2016.
2. Johnson, G., Scutella, R., Tseng, Y. and Wood, G. (2015) Entries and exits from homelessness: a dynamic analysis of the relationship between structural conditions and individual characteristics, Australian Housing and Urban Research Institute (AHURI) Final Report No.248. Melbourne: Australian Housing and Urban Research Institute. Available from: <<http://www.ahuri.edu.au/publications/projects/p53042>>. Accessed on: February 18, 2016.
3. Moons, KGM., de Groot JAH., Bouwmeester W., Vergouwe Y., Mallett S., Altman D., Reitsma J., Collins G. (2014) Critical Appraisal and Data Extraction for Systematic Reviews of Prediction Modelling Studies: The CHARMS Checklist. PLoS Medicine 11(10):e1001744. doi: 10.1371/journal.pmed.1001744

## **Appendices**

**Appendix A: Concept Model**

**Appendix B: Search Strategy**

**Appendix C: Literature Search Flowchart**

**Appendix D: Data Extraction Tables**

**Appendix E: Applicability & Transferability Worksheet**

## Appendix A: Concept Model

Table: Individual Characteristics and Structural Factors Associated with Homelessness

Outcome of Interest	Structural Factors	Individual Characteristics
Homelessness	<ul style="list-style-type: none"> <li>• Housing markets</li> <li>• Unemployment</li> <li>• Poverty</li> <li>• Higher mean temperatures</li> <li>• De-institutionalization of mental health</li> <li>• Availability of unskilled jobs</li> <li>• Amount of female-headed households</li> </ul>	<ul style="list-style-type: none"> <li>• Substance misuse</li> <li>• Mental illness</li> <li>• Physical illness</li> <li>• Age</li> <li>• Gender</li> <li>• Household structure</li> <li>• Ethnicity</li> <li>• Education</li> <li>• Work history</li> <li>• Lack of family support</li> <li>• Trauma</li> <li>• Violence</li> <li>• Adverse childhood experiences</li> </ul>

## Appendix B: Search Strategy

Database: Ovid MEDLINE(R) <1946 to June Week 2 2015>, Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations <June 19, 2015>

Search Strategy:

- 
- 1 exp Social Security/ (7466)
  - 2 social security.ti. (2419)
  - 3 exp Public Assistance/ (60898)
  - 4 social assistance.ti. (149)
  - 5 ontario works.ti,ab. (3)
  - 6 social program\*.ti. (44)
  - 7 income assistance.ti. (6)
  - 8 social benefit\*.ti. (86)
  - 9 financial assistance.ti. (82)
  - 10 exp social welfare/ (50722)
  - 11 case management.ti,ab. (8007)
  - 12 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (117913)
  - 13 exp Homeless Persons/ (6735)
  - 14 homeless\*.ti. (4221)
  - 15 exp housing/ (26134)
  - 16 housing.ti. (4718)
  - 17 eviction.ti. (69)
  - 18 self suffic\*.ti. (260)
  - 19 welfare depend\*.ti. (19)
  - 20 self relianc\*.ti. (82)
  - 21 rehousing.ti,ab. (68)

- 22 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 (34054)
- 23 12 and 22 (1721)
- 24 remove duplicates from 23 (1690)
- 25 review\*.ti,ab. (1388096)
- 26 meta analys\*.ti,ab. (75638)
- 27 25 or 26 (1425943)
- 28 24 and 27 (92)
- 29 limit 28 to yr="2005 -Current" (43)

\*\*\*\*\*

Database: Ovid MEDLINE(R) <1946 to June Week 2 2015>, Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations <June 19, 2015>

Search Strategy:

- 
- 1 homeless\*.ti. (4221)
  - 2 welfare depend\*.ti. (19)
  - 3 risk factor\*.ti. (80406)
  - 4 characteristic\*.ti. (142654)
  - 5 1 or 2 (4240)
  - 6 3 or 4 (222342)
  - 7 5 and 6 (140)
  - 8 limit 7 to (english language and yr="2005 - 2015") (72)
  - 9 remove duplicates from 8 (70)

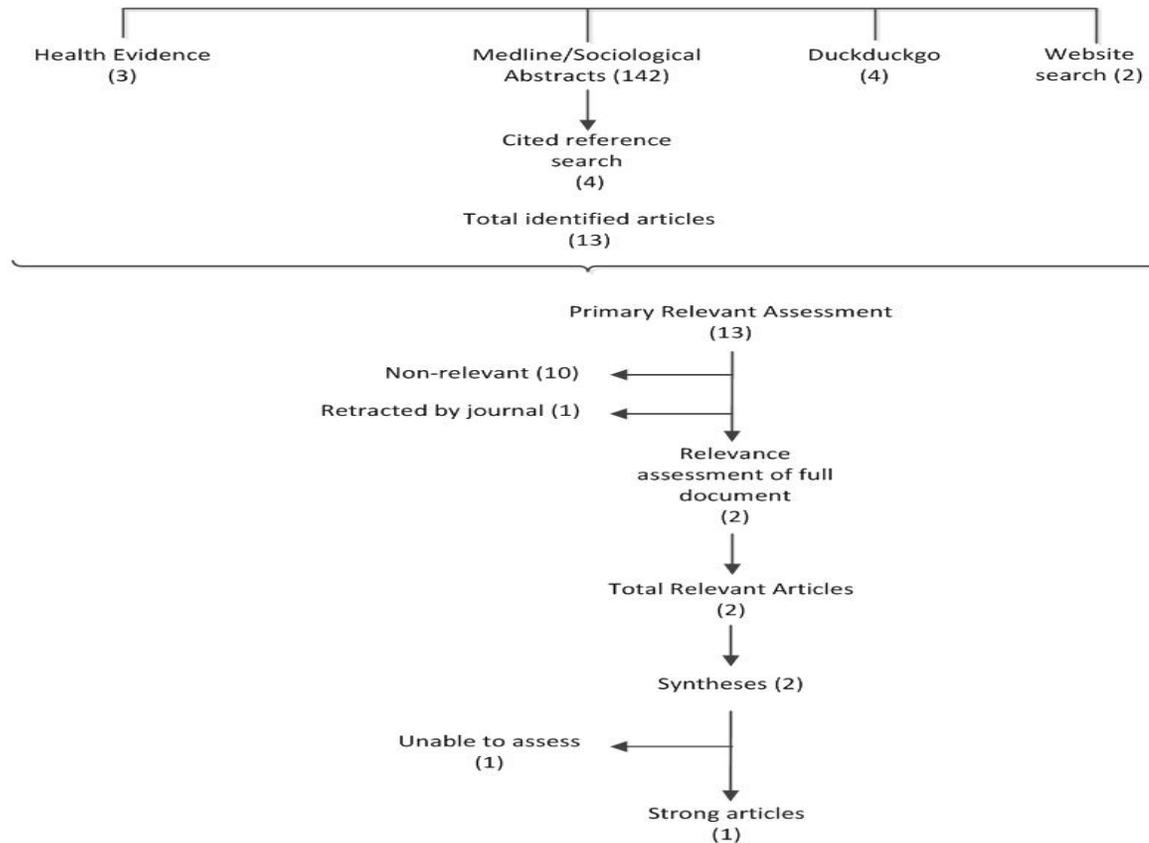
\*\*\*\*\*

	S6 AND S5	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - SocINDEX with Full Text	183
S6	AB homeless*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - SocINDEX with Full Text	6,825
S5	S1 AND S2 AND S3	Limiters - Date of Publication: 20050101- 20151231 Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - SocINDEX with Full Text	3,450
S4	S1 AND S2 AND S3	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - SocINDEX with Full Text	8,631
S3	AB "case management" OR AB "social assistance" OR AB outreach OR AB intervention* OR AB program* OR AB "social	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - SocINDEX with Full	244,755

	support**		Text	
S2	AB evict* OR AB "food insecurity" OR AB mortality OR AB criminal OR AB unemploy* OR AB "secure hous*" OR AB "self suffic*" OR AB resilien* OR AB trauma* OR AB depress* OR AB "quality of life" OR AB ( recidiv* OR death )	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - SocINDEX with Full Text	191,731
S1	AB poverty OR AB homeless* OR AB "social assistance" OR AB "at risk" OR AB welfare OR AB vulnerable OR "emergency shelter**"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - SocINDEX with Full Text	159,685

## Appendix C: Literature Search Flowchart

Among applicants for social assistance, what are the most influential demographic, social and structural factors that lead to negative outcomes (such as housing instability, eviction, homelessness, extended periods on social assistance, lack of self-sufficiency)?



Adapted from: [healthevidence.org](http://healthevidence.org). Keeping Track of Search Results: A Flowchart. [Retrieved January 13, 2010].

## Appendix D: Data Extraction Tables

Domain	Items	Reported on Page #
<b>Source of data</b>	Longitudinal cohort study (Journeys Home cohort)	13
<b>Participants</b>	<ul style="list-style-type: none"> <li>• Sample of income support recipients in Australia, drawn from Centrelink administrative records.</li> <li>• Since 2010, Centrelink staff use standard definition protocols to identify income support recipients who are homeless, at risk of homelessness or vulnerable to homelessness.</li> <li>• Stratified random sample from eligible population (N=139,801); stratified across 36 geographic regions across Australia</li> <li>• All selected clients are either homeless or at risk of becoming homeless</li> <li>• Sample different than general Australian population (i.e., younger, more likely to be single, have no dependent children, Australian born and much more likely to be Indigenous Australian)</li> <li>• Data collection for wave 1 began September to November 2011</li> </ul>	13-14
<b>Outcomes to be predicted</b>	<ul style="list-style-type: none"> <li>• Initial interview with five additional follow-up interviews at six-month intervals</li> <li>• Face to face interviews where possible (telephone alternative)</li> <li>• Homeless defined as a person who:               <ol style="list-style-type: none"> <li>1. has no accommodation;</li> <li>2. is residing in emergency or crisis accommodation;</li> <li>3. is residing in accommodation that does not meet the minimum community standard (such as caravans, boarding houses, hotels or motels); or</li> <li>4. is residing with family or friends in a house or unit if the arrangement is short-term or temporary (less than three months in duration).</li> </ol> </li> <li>• Information used to define outcome collected from participants in interviewer-administered survey at six-month intervals</li> <li>• Three outcomes examined:               <ol style="list-style-type: none"> <li>1. Homelessness - meet homeless definition at any data collection period</li> </ol> </li> </ul>	14

	<p>(static model)</p> <ol style="list-style-type: none"> <li>2. Entry into homelessness - housed at current interview but become homeless in the next six months (at next interview).</li> <li>3. Exit from homelessness - homeless at current interview but become housed in the next six months (at next interview)</li> </ol> <ul style="list-style-type: none"> <li>• Interviewers not blinded to outcome during interview.</li> <li>• Model ascertains whether homelessness is more or less probable for certain group of people as compared to other vulnerable groups in the sample (not the general population)</li> <li>• For categorical variables, the marginal effects is the change in predicted probability of the outcome as a result of changing from the base category to the target category.</li> <li>• For continuous variables, the marginal effect is changes in the predicted probability due to a one unit change in the explanatory variable.</li> </ul>	
<p><b>Candidate predictors</b></p>	<ul style="list-style-type: none"> <li>• Demographic and structural factors examined (Table 1, page 16)</li> </ul> <p>Self-reported predictors (categorical variables, 0/1 values, unless otherwise stated):</p> <ul style="list-style-type: none"> <li>• Sex</li> <li>• Age group</li> <li>• Aboriginal or Torres Strait Islander</li> <li>• Born in Australia</li> <li>• Born in main English-speaking country</li> <li>• Born in non-main English-speaking country</li> <li>• Married/defacto</li> <li>• Have resident children</li> <li>• Post-school qualification</li> <li>• Year 12 or equivalent</li> <li>• Year 10 or 11</li> <li>• Year 9 or below</li> <li>• Employed</li> <li>• Unemployed</li> </ul>	<p>14-20</p>

	<ul style="list-style-type: none"> <li>• Not in the labour force</li> <li>• No work history</li> <li>• Time employed</li> <li>• Has not experienced job loss within past 2 years</li> <li>• Lost job in last 6 months</li> <li>• Lost job in last 2 years but not last 6 months</li> <li>• Ever in state care</li> <li>• No principal caregiver at age 14</li> <li>• Did not experience violence in last 6 months</li> <li>• Experienced violence in last 6 months</li> <li>• Did not respond to violence question</li> <li>• Incarcerated in last 6 months</li> <li>• Alcohol consumption (average number of drinks per day)</li> <li>• Cigarette consumption (average number of cigarettes smoked per day)</li> <li>• Did not use illicit drugs in last 6 months</li> <li>• Used illicit drugs in last 6 months irregularly</li> <li>• Regular user of illicit drugs in the last 6 months</li> <li>• Long term health condition (last 6 months or more)</li> <li>• Never diagnosed with bipolar/schizophrenia</li> <li>• Ever diagnosed with bipolar/schizophrenia</li> <li>• Did not respond to bipolar/schizophrenia question</li> <li>• Average social support score across 4-item scale</li> <li>• Ever primary homeless</li> <li>• Primary homelessness by wave</li> <li>• Gross weekly income of individual and partner (divided by 100)</li> </ul> <p>Area-based characteristics from 2011 Census:</p> <ul style="list-style-type: none"> <li>• Median market rent</li> <li>• Average unemployment rate</li> <li>• Concentration of low income households</li> <li>• Availability of affordable private rental housing</li> </ul>	
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	<ul style="list-style-type: none"> <li>• Availability of public/social housing</li> <li>• Availability of affordable housing (private + public)</li> <li>• Area-based characteristics defined at Statistical Area Level 4 (SA4). For each outcome of interest, two models are presented <ol style="list-style-type: none"> <li>1. Model 1 SA4s within capital cities merged into the greater capital city area (preferred specification of authors)</li> <li>2. Model 2 - SA4 classification retained across all regions</li> </ol> </li> <li>• Approximately 20% of the sample are homeless at any one time</li> </ul>	
<b>Sample Size</b>	<ul style="list-style-type: none"> <li>• Stratified random sample of 2,992 individuals</li> <li>• 273 individuals deemed to be ineligible after selection (mostly because they moved out of the area)</li> <li>• 1,682 individuals agreed to participate in wave 1 interviews</li> <li>• Response rates for each wave: 62% wave 1; 91% wave 2; 88% wave 3; 86% wave 4; 85% wave 5; and 83% wave 6.</li> <li>• Static model of homelessness has total sample size of 7,138</li> </ul>	13, 24
<b>Missing Data</b>	<ul style="list-style-type: none"> <li>• No information provided</li> </ul>	
<b>Model Development</b>	<ul style="list-style-type: none"> <li>• Estimate a discrete choice model of each individual's housing state at a particular point-in-time</li> <li>• Random effects logistic regression model of two housing states - housed and homeless</li> <li>• Interaction between individual factors and structural characteristics explicitly allowed in model</li> <li>• For time-varying explanatory variables that are likely to be correlated with unobserved heterogeneity, the with-in person means of these variables will be added to the standard random-effects model</li> <li>• Information about predictor variable selection and criteria not provided</li> <li>• Information about shrinkage of regression coefficients not provided</li> </ul>	11
<b>Model</b>	<ul style="list-style-type: none"> <li>• Panel level standard deviation = 2.179</li> </ul>	

<b>performance</b>	<ul style="list-style-type: none"> <li>Proportion of variance contributed by panel-level variance = 0.591</li> <li>Likelihood-ratio test of <math>\rho=0 = -2690.4</math></li> <li>Log likelihood = 1557</li> <li>No additional information provided about model performance</li> </ul>																																																																									
<b>Model evaluation</b>	<ul style="list-style-type: none"> <li>Information about model evaluation for static, entries and exits models not provided</li> <li>Sensitivity analysis conducted using more sophisticated housing market variables to better account for housing market characteristics</li> </ul>	40																																																																								
<b>Results</b>	<ul style="list-style-type: none"> <li>Results for two models for each of the three outcomes are presented at three levels of significance (10%, 5% and 1%)</li> <li>Results extracted for homeless model #1</li> </ul>	Table 2, page 24 and table A1 page 54																																																																								
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Year 9 or below	0.024	0.263	0.244
<i>Labour force status</i>			
Employed (reference)	--	--	
Unemployed	0.040	0.499	0.040
Not in labour force	0.053	0.646	0.008
<i>Work history</i>			
No work history	-0.056	-0.746	0.217
Time employed (%)	0.000	0.001	0.946
Has not experienced job loss within last 2 years (reference)	--	--	
Lost job in last 6 months	-0.034	-0.403	0.063
Lost job in last 2 years but not in last 6 months	0.002	0.037	0.837
<i>Family history</i>			
Ever in state care	-0.010	-0.108	0.607
No principal caregiver at age 14	0.002	0.034	0.917
<i>Recent events</i>			
Did not experience violence in last 6 months	--	--	
Experienced violence in last 6 months	0.031	0.317	0.016
Did not respond to violence question	-0.005	-0.031	0.903
Incarcerated	0.097	0.889	0.001
Alcohol consumption	0.002	0.423	0.004
Cigarette consumption	0.002	0.021	0.010
Did not use illicit drugs in last 6 months	--	--	
Irregular use of illicit drugs last 6 months	0.010	0.092	0.584
Regular use of illicit drugs last 6 months	0.009	0.077	0.663
<i>Health</i>			
Long-term health condition	0.031	0.333	0.015
Never diagnosed with bipolar/schizophrenia	--	--	
Ever diagnosed with bipolar/schizophrenia	-0.070	-0.876	0.033

	schizophrenia				
	Did not respond bipolar/ schizophrenia	0.100	0.906	0.309	
	Social support	-0.037	-0.411	0.000	
	Ever primary homeless	0.071	0.840	0.000	
	Combined income (\$00s)	0.000	-0.004	0.779	
	<b>Area-level characteristics</b>				
	Median market rent (\$00s)	0.040	0.071	0.363	
	Average unemployment rate	0.007	-4.421	0.000	
	<b>Number of observations</b>	<b>7,138</b>			
<b>Interpretations and discussion</b>	<ul style="list-style-type: none"> <li>• Results are the first study to use quantitative longitudinal data to provide evidence of the factors that contribute to homelessness</li> <li>• Homelessness is dynamic process, where the longer people remain homeless, the more complex and costly their circumstances become</li> <li>• Exiting homelessness was shown to be more difficult for some groups, therefore there needs to be the right balance between prevention and reactive services</li> <li>• Important to consider entries and exits to homelessness separately</li> <li>• Generalizability of results not consistently discussed</li> <li>• Policy implications of specific results discussed</li> <li>• Noted that relationship between diagnosis of bipolar and schizophrenia, likely due to the fact that those who have been diagnosed are likely receiving treatment compared to those who may be undiagnosed.</li> <li>• Importance on housing and labour markets on risk - individuals living in areas with tighter housing markets are at elevated risk of homelessness</li> <li>• Authors note that the spatial pattern of homelessness services is not taken into account in current analysis.</li> <li>• High level of mobility of the homeless impacts results, especially related to the housing and labour market variables</li> <li>• Additional modelling techniques could be used to account for unmeasured heterogeneity and spatial patterns in the data</li> <li>• Mixed methods research could aid in the interpretation of study results, especially the personal motives underlying behaviour</li> </ul>				44

## Appendix E: Applicability and Transferability Worksheet

Factors	Notes
Political acceptability or leverage	<ul style="list-style-type: none"> <li>• Reflects the “Working with You” vision of Region of Peel</li> <li>• Need to consider the changing federal and provincial landscape related to social services (for example guaranteed income levels for Canadians)</li> <li>• TCW work with many community organizations and services - would need their buy-in and support for any changes</li> <li>• Aligns well with Regional Councils 20-year plan (reduce poverty, homelessness and housing) and the 10-year housing and homelessness plan</li> <li>• May reduce the need for politicians and management to get personally involved with high needs clients - more cost effective</li> <li>• Will likely demonstrate a high level of need in the community - this information could be useful for community partners to prioritize services and identify gaps in services</li> <li>• TCW program should be reviewed because previous evaluation is dated - this would demonstrate the value of the program and the positive outcomes for clients</li> <li>• Important to conduct an environmental scan to see what other municipalities/jurisdictions are doing to screen clients for intensive supports</li> <li>• Content of the tool may reinforce existing stereotypes of client group (e.g. alcohol use, violence, incarceration).</li> </ul>
Social acceptability	<ul style="list-style-type: none"> <li>• Clients are very willing to share personal information on the telephone. Maybe even more so than in person because of anonymity.</li> <li>• When clients call Region, their immediate needs/concerns are financial and not about getting supports for other issues they are facing</li> <li>• Would need to articulate and communicate clearly to staff and clients the value of the tool and the new process</li> <li>• Question wording would need to be reviewed with clients beforehand re: acceptability, working, invasiveness (maybe from the wellness program)</li> <li>• Also need to consult staff about the wording of the introduction and tool questions</li> <li>• Questions would need to be quick to administer and specific to the different types of clients assessed (e.g. families, singles)</li> <li>• Need to consider “backdoor” referral process for high needs clients (e.g., direct from shelters, victims of family violence)</li> <li>• Thought needs to be put towards who conducts the tool - assessment team or OW caseworkers at first meeting to determine eligibility - this needs to be decided before pilot methods determined</li> <li>• Would need to collect permission to contact pilot clients at 6 months - in case they are no longer in the Region</li> </ul>

	<ul style="list-style-type: none"> <li>• Pilot will need to include feedback from clients, TCW, OW caseworkers, assessment team, management - outcomes to be determined</li> <li>• Need to remember that not all TCW clients will be able to move to a OW caseworker - the outcomes for some might be more qualitative in nature (improvements while still on TCW caseload)</li> </ul>
Available essential resources (personnel and financial)	<ul style="list-style-type: none"> <li>• TCW currently do not conduct assessments for OW eligibility <ul style="list-style-type: none"> <li>◦ This would make them more office bound - negative</li> <li>◦ Changes the nature of the relationship with clients - negative</li> </ul> </li> <li>• Need to consider what will happen if need overwhelms demand (which it likely will) - not during the pilot project and the implementation phase</li> <li>• The pilot can't derail the current process for clients</li> <li>• Need to consider how any changes to the process will impact timeframe for obtaining financial support - this is the #1 concern of clients (max 4 days)</li> <li>• Need to consider how the online applications will be included in the pilot</li> <li>• Assessment team - already spends about one hour per client (30 minutes on telephone gathering information, 30 minutes follow-up e.g., booking appointments, documentation) - how would this tool add to this burden?</li> <li>• Only 8 TCW - how can they serve all of the clients that will be referred? Waitlist? Shorter engagement length with clients (realistic?)</li> </ul>
Organizational expertise and capacity	<ul style="list-style-type: none"> <li>• Tool needs to be specific to types of clients seen (families versus singles)</li> <li>• Human Services is not a Health Information Custodian under PHIPA - they need to be careful about collecting health information. They would need to demonstrate how this is being used for case planning.</li> <li>• Need to phase the pilot carefully</li> <li>• Need to consider the evaluation outcomes for the pilot</li> <li>• Communication to staff very important</li> <li>• Need to consider how the tool will be weighted - how will the weights be determined? Weighting needs to be an automatic process and not manual</li> <li>• Concern that clients will answer questions "correctly" to get the type of service they want</li> </ul>
Magnitude of health issue in local setting	<ul style="list-style-type: none"> <li>• Previous pilot of assessment questions - about half of clients would have been referred to TCW - too many for # of TCWs. Should compare the previous questions to the proposed risk factors in this pilot.</li> <li>• Need to understand the current TCW clients with respect to the risk factors identified for tool</li> <li>• Suspect that many clients will have a number of these risk factors - how to prioritize them?</li> <li>• Refusals in the pilot may be the neediest clients - how would they be followed over time?</li> </ul>
Magnitude of the "reach" and cost effectiveness of the intervention above	<ul style="list-style-type: none"> <li>• Would be applied to all new OW applicants - need to consider whether it would ever expand to all callers to assessment team (e.g., housing, child care)</li> <li>• Could reduce cost if managers not need to be involved in the high needs clients</li> </ul>

Target population characteristics	<ul style="list-style-type: none"> <li>• Need to review data for current TCW clients</li> </ul>
Proposed Direction	<p>Pre-pilot:</p> <ul style="list-style-type: none"> <li>• Look at profile of current TCW clients for risk factors</li> <li>• Conduct environmental scan of other municipalities and tools</li> <li>• Draft tool and consult with clients and teams</li> <li>• Determine methods for pilot (e.g., who will administer the tool)</li> <li>• Determine pilot phases (tool only, tool and referral process) and outcomes of interest</li> </ul> <p>Post-pilot:</p> <ul style="list-style-type: none"> <li>• Consider financial and resource implications for TCW program</li> <li>• Determine need for separate tool for families</li> <li>• Determine “backdoor” referral process</li> <li>• How to deal with situations where client’s situation changes (for positive or negative)</li> <li>• Consider factors not currently captured in tool - housing, recent homelessness, # of times homeless</li> </ul>