This is a summary report on the effectiveness of community services for homeless adults with concurrent mental health and substance use disorders.

The purpose of this report is to guide policy development and appropriate program investment and implementation to address concurrent disorders (CD) in homeless populations.

North American estimates suggest that as many as 10-20% of homeless adults experience concurrent mental health and substance use disorders. However, referral options and services for CD are often limited, and homeless clients face multiple barriers to receiving and benefiting from care.

In Toronto, Canada, a partnership of community-based agencies and researchers identified the need for strong evidence to guide decision-making related to CD services.

An evidence synthesis was conducted, based on a search of post-1980 English language publications in social sciences and health sciences research databases. Altogether, we collected evaluations of 10 different community programs for homeless clients with CD. Information from academic articles was supplemented with program information collected online and through interviews with authors of the articles.

In reviewing the evidence, we asked not only, “what works” to address mental health and substance use disorders in homeless clients. We also explored the underlying mechanisms of CD programs, and asked, “how do successful programs work?; for whom do they work?; under what circumstances?; and why?”
This study was conducted through the collaboration of:

Centre for Research on Inner City Health
St. Michael's Hospital
Toronto
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The Centre for Research on Inner City Health (Keenan Research Centre in the Li Ka Shing Knowledge Institute) at St. Michael's Hospital is dedicated to reducing health inequities through innovative research that supports social change.
Contact: Dr. Patricia O’Campo, Director

Access Alliance Multicultural Health Centre
Toronto
www.accessalliance.ca
Access Alliance works to promote health and well-being and improve access to services for immigrants and refugees in Toronto by addressing medical, social, economic and environmental issues.
Contact: Axelle Janczur, Executive Director

Ontario Federation of Indian Friendship Centres
Toronto
www.ofifc.org
The Ontario Federation of Indian Friendship Centres (OFIFC) is a provincial Aboriginal organization representing the collective interests of 27 member Friendship Centres located in towns and cities throughout the province of Ontario.
Contact: Sylvia Maracle, Executive Director

Sistering: A Woman’s Place
Toronto
www.sistering.org
Sistering has been supporting homeless, underhoused and low-income women in the Toronto community since 1981.
Contact: Angela Robertson, Executive Director

Street Health
Toronto
www.streethealth.ca
Street Health works to improve the health and well being of homeless and underhoused individuals in southeast Toronto by addressing the social determinants of health through programs, services, education and advocacy.
Contact: Laura Cowan, Executive Director

South Riverdale Community Health Centre
Toronto
www.srchc.ca
The South Riverdale Community Health Centre (SRCHC) is a community-based organization that offers primary health care services and health promotion programs to a diverse community.
Contact: Lynn Raskin, Executive Director
Key Findings

- Concurrent disorders programs for homeless clients were more effective in improving mental health symptoms, and less effective in reducing substance use.

- In concurrent disorders programs for homeless clients, building client autonomy was an important – and perhaps essential – mechanism for improving mental health symptoms.

- 6 promising strategies for building client autonomy and improving mental health symptoms were identified. No ‘stand alone’ strategy was identified. Successful concurrent disorders programs implemented 2 or more of these ‘promising strategies’ in various combinations:
  
  - **Client Choice in Treatment Decisions**
  - **Positive Interpersonal Relationships between Clients and Providers**
  - **Proactive Multidisciplinary Teams**
  - **Housing Provision**
  - **Instrumental Supports (e.g. legal aid, vocational training, community integration, etc.)**
  - **Flexible Program Policies**

- The strongest evidence of mental health improvement was found in concurrent disorders programs featuring Housing Provision, Proactive Multidisciplinary Teams, and/or Positive Interpersonal Relationships between Clients and Providers. Evidence of mental health improvement was somewhat weaker in concurrent disorders programs featuring Instrumental Supports and/or Flexible Program Policies.
What is an Evidence Synthesis?
A reliable synthesis or systematic review of a body of research aimed to answer a clearly formulated question. Explicit rules are followed to identify, select, appraise, and synthesize the findings of individual research studies on an intervention.

What is a Realist Approach to Evidence Synthesis?
An approach to evidence synthesis that is particularly appropriate for understanding how complex interventions work in real contexts.

The realist synthesis aims to reveal underlying processes or mechanisms that link various elements of a complex intervention together. The reviewers look at evidence of how these elements may function in different contexts. The synthesis aims to explain not only “what works”, but “what works for whom, under what circumstances, in what respects, and how” (Pawson et al, 2005). The realist approach to quality appraisal focuses on the adequacy of a study design to answer the research question (e.g. statistical power, sampling design, strength of evaluation, internal and external validity) and the amount of descriptive detail provided about the intervention, implementation, and context.

What is a Complex Intervention?
- A program or policy that has multiple active ingredients (no ‘silver bullet’).
- A program or policy that relies upon participants’ actions, volitions, or beliefs to take effect.
- A program or policy whose implementation and outcomes are affected by context.
- A program or policy that has a ‘feedback effect’ – the results of the intervention affect the intervention itself and change it over time.
- A program or policy that may require a lengthy period of time to achieve full impacts (Pawson et al, 2005).

We developed this evidence synthesis because:

1. We support evidence-based policy and program development locally, provincially, and nationally.
2. We wanted to provide decision-makers with evidence about ‘what works and why’ for homeless clients with concurrent disorders.
3. The creation of Local Health Integration Networks in Ontario is an important opportunity to foster evidence-based integrated care for people with concurrent disorders.
4. The development of a Mental Health and Addictions Strategy for Ontario is an important opportunity to foster evidence-based integrated care for people with concurrent disorders.
5. The establishment of a health equity focus for Ontario is an important opportunity to foster evidence-based care for homeless and other marginalized clients with concurrent disorders.
6. We want to show how grassroots collaborations can contribute to positive health system change.
7. We wanted to learn if our experience-based knowledge about ‘what works’ to address concurrent disorders is supported (or challenged) by the research evidence.
8. We wanted to learn from research about good strategies for system integration.
9. We wanted to highlight research findings about the value of community health care.

We are community agencies providing health care, social services, and cultural services to homeless adults in Toronto, Canada. Some of us provide specialized services for priority populations, such as Aboriginal Peoples, low-income women, immigrants and refugees, and individuals using substances who seek harm reduction services.

Every day, we encounter clients with concurrent mental health and substance use issues. We know that our clients are badly in need of better, more integrated, and more responsive services to address their complex health and social conditions.

Our Point of View
We support evidence-based policy and program development locally, provincially, and nationally. We wanted to provide decision-makers with evidence about ‘what works and why’ for homeless clients with concurrent disorders. The creation of Local Health Integration Networks in Ontario is an important opportunity to foster evidence-based integrated care for people with concurrent disorders. The development of a Mental Health and Addictions Strategy for Ontario is an important opportunity to foster evidence-based integrated care for people with concurrent disorders. The establishment of a health equity focus for Ontario is an important opportunity to foster evidence-based care for homeless and other marginalized clients with concurrent disorders. We want to show how grassroots collaborations can contribute to positive health system change. We wanted to learn if our experience-based knowledge about ‘what works’ to address concurrent disorders is supported (or challenged) by the research evidence. We wanted to learn from research about good strategies for system integration. We wanted to highlight research findings about the value of community health care.
We synthesized evidence from peer-reviewed research publications and gathered supplementary information from online sources and through interviews with the publication authors. To be eligible for inclusion, research needed to measure the effects of community-based CD programs on homeless clients’ mental health or substance use disorders. We excluded descriptive reports that did not compare program outcomes against a control group. We defined homeless clients as “people currently experiencing homelessness, those at risk of becoming homeless, people formerly homeless within the past few years, and under-housed people”.

A keyword search of relevant English language medical and social sciences databases (post 1980) produced an initial list of 2,711 research articles. Eligibility screening reduced this list to 17 research articles focused on 10 distinct CD programs. (Note: for some programs, there was more than one article addressing the same program).

Types of Concurrent Disorders Programs

All of the research focused on US programs: Access to Community Care and Effective Services and Supports (ACCESS), Burnam Study, Choices Center, Community Connections, Connecticut Co-Occurring Disorders Study, Connections Program, Emerson-Davis Family Development Centre Program, Horizon Home, Morse Study, and Pathways to Housing (program locations and full descriptions can be found on page 8). No relevant Canadian programs were identified through the search. Most programs worked with male clients in their mid-30s. None of the evaluations focused on programs designed specifically for homeless women, immigrants and newcomers, Aboriginal Peoples, or other populations that are important for our community agency partners. In most programs, clients experienced severe mental illness in addition to substance use disorders. Substances used by clients included alcohol, marijuana, heroin, crack or cocaine, and amphetamines. Some programs provided housing and on-site services. Other programs used a service outreach model. Some programs were explicit about an abstinence approach. Notably, we found no evaluations of programs with an explicit harm reduction approach.

The synthesis we conducted focused on clinical outcomes related to mental health or substance use disorders, including: number of psychiatric hospitalizations, psychiatric symptom severity, number of days of substance use, and measures of substance use severity. Some evaluations in this study also explored non-clinical outcomes, such as housing stability, educational attainment, program retention, and client satisfaction. However, because different studies measured different results, it was not possible to synthesize the evidence on non-clinical outcomes. It will be valuable for future evaluations to collect data systematically on non-clinical outcomes, including these areas identified by our community team: cultural sensitivity and cultural safety, harm reduction behaviour, and discharge planning.
Why, How, and For Whom Do Successful CD Programs Work?

**Client Choice in Treatment Decisions**

Emphasis on client choice was a promising strategy in 6 out of 10 programs reviewed. Clients were encouraged to choose their own apartment and neighbourhood to live in, to make their own decisions about engaging in treatment, and/or to participate in staffing decisions/program planning. Promoting client choice resulted in programs that were maximally tailored to individual needs. The studies found that clients' empowerment to make choices helped them stay housed and reduced mental health symptoms.

In Pathways to Housing, the beneficial effect of “housing first” on psychiatric symptoms was due to clients’ enhanced sense of mastery and control.

**Positive Interpersonal Relationships between Clients and Providers**

In several studies, positive client-staff dynamics were linked to improved mental health outcomes. Relationships characterized by mutual trust, respect, dignity and warmth increased clients' self-esteem and supported their engagement and retention in the program. Empathy shown by peer support staff with lived experience of homelessness, substance use, or mental health issues increased staff sensitivity to clients' struggles in the Choices program. Clients compared the “acts of kindness” performed by Pathways staff (such as providing extra support during difficult transitions or connecting clients to instrumental supports) to routine and sometimes dehumanizing encounters with staff in other types of programs.

In the Morse and the Calsyn studies, trusting relationships between clients and staff were associated with improvement in psychiatric symptoms.

**Proactive Multidisciplinary Teams**

Around-the-clock mental health and substance use services, delivered proactively in non-clinical settings by multidisciplinary, community-based teams was a promising strategy in 4 of 10 programs. Some programs offered mental health and substance use services in the same setting and did not require abstinence from substances to participate in the program. Over time, proactive treatment was shown to reduce mental health symptoms in all 4 programs.
Combining housing provision with other services was a core element in several programs. However, diverse housing models were implemented and none of the studies measured the direct role of housing provision on client outcomes. Independent, scatter-site housing without treatment requirements and in consideration of client choice was found to build client autonomy in Pathways, and to reduce substance use in ACCESS. The Pathways program also provided rent supplements and access to permanent independent housing. Positive effects on mental health and substance use were also reported in programs with supervised group living (Horizon Home) and continuum/recovery models that started with group living and gradually moved recovering clients to less restrictive, independent housing (Community Connections; Emerson-Davis program). Evaluators speculated that strictly enforced group housing rules, including sobriety, contributed to the Burnam program’s lack of success in reducing mental health symptoms or substance use.

The mental health and substance use challenges faced by homeless CD clients are typically chronic in nature. To accommodate clients’ health issues, some of the more successful CD programs had non-restrictive, flexible designs which fostered consistency, client engagement and autonomy. For example, some programs did not require abstinence for program entry or retention. Pathways did not emphasize a treatment end-point, and offered treatment, housing, and supports unconditionally, regardless of a client’s situation. In contrast, evaluators considered that a factor contributing to poor outcomes in the Burnam program may have been the relatively short (3 month) intensive treatment program and the emphasis on abstinence.
Building Client Autonomy Reduces Mental Health Symptoms

We isolated 6 recurring elements in the CD programs that reduced clients’ mental health symptoms. We do not have enough evidence to say conclusively that these elements caused clients to have improved mental health and/or substance use outcomes. Yet when considered together, these elements appear to work by building client autonomy or self-determination. In other areas of health and social research, there is strong evidence to support the link between autonomy and complex health behaviour changes. Examples include successful diabetes management, long-term weight loss, long-term smoking cessation, positive behaviour change among troubled youth, and even law school performance and satisfaction. Behaviour change research indicates that self-directed goals are more likely to be achieved, compared to goals that are imposed or controlled by external sources (e.g. health care providers).

Such evidence suggests that, compared to programs that are fixed or restrictive, concurrent disorders programs which support client self-determination in service use will likely lead to longer-term positive health changes. All 6 promising strategies identified in this synthesis seem to contribute to reducing mental health symptoms by building and promoting client autonomy, as illustrated by the diagram below. In this diagram, solid arrows reflect stronger evidence and broken arrows reflect a weaker evidence base.

Concurrent Disorders Programs were Less Successful in Reducing Substance Use

Few programs were successful in reducing substance use. This result may be an indication of the challenging nature of clients’ substance use disorders. However, it may also be a reflection of how substance use behaviours were defined and measured by the research studies. For example, most studies measured client abstinence, but few studies emphasized harm-reduction behaviours, such as decreased substance use and less risky behaviour related to substances.
Knowledge Gaps: Implications for Our Priority Populations

The available evidence does not provide answers to all of our questions. We encountered important gaps in the research literature, particularly concerning the needs of priority populations in Toronto.

- For example, we found no research on CD programs specifically designed for **homeless women**. The Street Health 2007 Report (and 2008 Women and Homelessness Research Bulletin) demonstrated trauma and substance use were common experiences for homeless women in Toronto. Our experience tells us that CD programming for homeless and underhoused women needs to address interrelationships between violence, trauma, mental health, and substance use. We strongly encourage more programming and more research on women-focused CD services.

- We also uncovered limited research on CD programs for **newcomers, refugees, and individuals whose first language is not English**. Although it was a very important area of interest to us, we found no research on the relevance of cultural resources or culturally competent care to address CD issues in homeless groups. This knowledge gap is especially important for the city of Toronto, which is the destination point for 40% of Canada’s newcomers, many of whom may encounter heightened challenges in accessing appropriate health and social services.

- We also found minimal research related to unique services for **Aboriginal Peoples**. Only 2 studies evaluated mental health and substance use outcomes in CD programs for Aboriginal Peoples. To respond to this evidence gap, we have launched research to evaluate the Alcohol and Drug Worker Treatment Program offered through the Ontario Federation of Indian Friendship Centres. This research will commence in Fall 2009.

- Some of our programs and partners offer **harm reduction services** for clients with CD. However, the research studies available were conducted in the U.S., where harm reduction programs are few, and harm reduction research is rarely supported by federal funding. Consequently, few of the CD research studies considered harm reduction effects, and most emphasized abstinence-related outcomes. Notably, most of the CD programs were unsuccessful in bringing about substance use reductions. There is an important need for research to assess the effects of harm-reduction programming on health improvements for CD clients.

- Finally, the majority of the research studies provided scant explanation of **program delivery processes, program philosophies, or program contexts** (e.g. characteristics of the physical, social, cultural, legal, and economic environment). This information may be what matters most in decision-makers’ assessments of the ‘transferability’ of a complex program to a new context. Yet current scientific conventions discourage researchers from reporting on contextual factors, which are either ‘controlled’ or screened out as ‘noise’ that is extraneous to the effectiveness of the program being evaluated. We agree with Pawson (2005), Arai et al (2005) and others who urge the scientific community to pay greater attention to the role of context in complex interventions, and to provide ‘thicker’ program descriptions to support the practical use of program evaluation in service planning and development.
Concurrent Disorders Programs Reviewed

Program Name: Access to Community Care and Effective Services and Supports (ACCESS)
Location: 15 US cities (e.g. Bridgeport CT, Chicago IL, St. Louis MO, Fort Worth, TX)
Client Description: Currently homeless
Currently experiencing concurrent disorders
No details provided on mental health or substance use diagnoses
Brief Program Description: A 5-year demonstration program sponsored by the Center for Mental Health Services of the US Department of Health and Human Services. Aimed to evaluate the impact of implementing system change strategies to foster collaboration and cooperation among agencies and reduce fragmentation of service systems in communities that also provided intensive outreach and assertive community treatment services (ACT).
Sample size for evaluation: 5,325 clients.
Mental Health Outcomes: No effect.
Substance Use Outcomes: Reduced substance use among all clients regardless of housing situation; greater reductions among independently-housed clients. Clients with less severe mental health and substance use disorders were more likely to become independently housed and show greater clinical improvement.
Promising Strategies:
Housing Provision

Program Name: Choices Center
Location: New York, NY
Client Description: Currently homeless
47% concurrent disorders
76% male
40 yrs (mean age)
100% severe mental illness
Brief Program Description: Drop in centre with outreach, case management, social supports, and instrumental supports (including access to shelter beds and rooming house beds). 24/7 staffing by rehabilitation specialists and respite staff who stayed with clients at shelters/rooming houses at night. Low-demand environment; clients were not required to participate in programs/treatments or commit to program-mandated goals.
Sample size for evaluation: 168 clients.
Mental Health Outcomes: Reduced psychiatric symptoms.
Substance Use Outcomes: No effect.
Promising Strategies:
Client Choice in Treatment Decisions
Housing Provision
Positive Interpersonal Relationships between Clients and Providers
Providing Supports for Instrumental Needs
Proactive Multidisciplinary Teams
Flexible Program Policies

Program Name: Connecticut Co-Occurring Disorders Study
Location: Connecticut (cities not specified)
Client Description: Currently homeless, unsheltered housed, or at risk of homelessness
Currently experiencing mental illness
100% major psychotic disorder + active substance use disorder (2006 study)
Brief Program Description: 2 forms of integrated CD treatment were evaluated:
(i) Proactive Multidisciplinary Teams for clinical care + case management. Included psychiatrists and nurses. Case loads of 50-70.
Mental Health Outcomes: Reduced psychiatric hospitalizations for ACT vs SCM. No difference in symptoms for ACT vs SCM.
Substance Use Outcomes: No effect.
Promising Strategies:
Proactive Multidisciplinary Teams

Program Name: Connections Program
Location: Delaware (city not specified)
Client Description: Currently homeless or at risk of homelessness
59% concurrent disorders
50% male
39 yrs (mean age)
100% severe mental illness (“SMI”)
59% diagnosed with lifetime substance abuse/dependence
Primary drug: crack or cocaine
Sample size for evaluation: 114 clients.
Mental Health Outcomes:
Reduced psychiatric hospitalizations after 4 years. No hospitalization differences between CD/SMI clients.
Substance Use Outcomes:
Reduced substance use after 4 years. Low achievement of abstinence after 4 years.
Promising Strategies:
Proactive Multidisciplinary Teams
Instrumental Supports
Flexible Program Policies
Program Name: Emerson-Davis Family Development Center Program

Location: Brooklyn, NY

Client Description:
Families
100% parents with mental illness
46% recovering substance abusers
42% schizophrenia; 40% mood disorders, 19% other diagnosis

Brief Program Description:
Residential program for clients who wish to be reunited with children in foster care. Clients were moved to independent housing as they proceeded along road of recovery. Case management emphasis. Focus on client wellness/creating community. Focus on linkages with other residents and services in the community.

Sample size for evaluation: not reported.

Mental Health Outcomes:
Reduced psychiatric hospitalizations.

Substance Use Outcomes:
Reduced substance use relapses.

Promising Strategies:
Instrumental Supports
Client Choice in Treatment Decisions

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Program Name: Morse Study

Location: St. Louis, MO

Client Description:
Currently homeless
100% concurrent disorders
80% male
40 yrs (mean age)

100% substance use disorder
48% schizophrenia; 19% schizoaffective disorder;
11% atypical psychotic disorder; 11% bipolar disorder; 9% major depressive disorder; 2% delusional disorder

Brief Program Description:
2 Proactive Multidisciplinary Teams-related interventions and a control group were evaluated.
(i) Team 1 directly provided integrated substance abuse and mental health treatments; and
(ii) Team 2 directly provided mental health services and made referrals to community agencies for outpatient individual substance abuse/12 step programs.

Both Teams operated in mental health agencies and a transitional housing facility. Both programs included proactive, motivational interviewing, a stages of treatment approach, cognitive-behavioural counseling and interventions to strengthen social networks.

Sample size for evaluation: 149 clients.

Mental Health Outcomes:
No effect.

Substance Use Outcomes:
No effect.

Promising Strategies:
Proactive Multidisciplinary Teams
Positive Interpersonal Relationships between Clients and Providers

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Program Name: Horizon Home

Location: Philadelphia, PA

Client Description:
Currently homeless
100% concurrent disorders.
64% male
33 yrs (mean age)
78% schizophrenia; 11% bipolar disorder; 5% depression; 6% other psychosis.
57% polysubstance use; 66% alcohol; 27% amphetamine use; 29% heroin use; 40% marijuana use

Brief Program Description:
Clients were housed in a group home setting with integrated in-house and off-site psychosocial and substance use services. Program was based on principles of therapeutic community but with greater flexibility, focused on client empowerment, client-centered planning, autonomy. Relapses were treated as part of recovery but abstinence was desired.

Sample size for evaluation: 176 clients.

Mental Health Outcomes:
Reduced psychiatric hospitalizations.

Substance Use Outcomes:
Increased abstinence.

Promising Strategies:
Client Choice in Treatment Decisions
Housing Provision

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Program Name: Pathways to Housing

Location: New York, NY

Client Description:
Currently homeless
90% concurrent disorders
79% male
41 yrs (mean age)
100% severe mental illness
53% psychotic disorder; 14% major depressive disorder, 14% bipolar disorder

Brief Program Description:
Scatter site, independent housing provided. No requirements for mental health or substance use treatment. ACT teams supported clients 24/7. Clinical treatment and instrumental and social supports provided. Clients retained their housing even when institutionalized or incarcerated.

Sample size for evaluation: 225 clients.

Mental Health Outcomes:
Reduced psychiatric symptoms.

Substance Use Outcomes:
No effect.

Promising Strategies:
Client Choice in Treatment Decisions
Housing Provision
Positive Interpersonal Relationships between Clients and Providers
Providing Supports for Instrumental Needs
Proactive Multidisciplinary Teams
Flexible Program Policies

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Related Literature

Homelessness:
This report is a recent survey of the health status of homeless adults in Toronto:

This article reviews the state of health and homelessness research in Canada:

Concurrent Disorders Treatment:
This systematic review assesses effectiveness of case management programs for CD:

Realist Systematic Reviews:
This paper explains the realist approach to evidence synthesis:

This paper discusses realist techniques for evidence appraisal:
Prepared by:

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