Housing and health: Examining the links

March, 2012

The Wellesley Institute engages in research, policy and community mobilization to advance population health.

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ACKNOWLEDGEMENTS

The Wellesley Institute acknowledges the financial and research support of the Public Health Agency of Canada in preparing an earlier version of this paper.

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Executive Summary

Adequate housing has been recognized as a "fundamental condition and resource for health" in the World Health Organization's Ottawa Charter for Health Promotion (1). There is a large body of international and national research work that demonstrates the close links between housing and health. At the same time, a growing number of housing interventions in many jurisdictions have been aimed at improving access to safe, good quality housing. This report provides an overview of research and policy work in the academic and professional and practice literature (government sources, NGOs and community practionners) that identifies and assesses housing interventions for impacts on health. This is a broad body of work: ranging from environmental and structural interventions to area-based, social and more clearly health-oriented interventions for the vulnerable.

In order to convey a sense of the scope of this work, this review remains necessarily high level in perspective, drawing on national and international examples. Nevertheless, several themes emerge. We know that certain populations experience a heavier burden of housing insecurity and related poorer health. Individuals living with a chronic illness (physical or mental), battling substance abuse issues, or dealing with displacement or long term unemployment may be disproportionately affected by housing insecurity. Housing interventions research suggests that concerted efforts to address the needs of those disproportionately affected can have a positive impact on population health.

This research and policy review offers several critical observations:

- There are substantive methodological challenges in the existing body of research on housing interventions, ranging from a lack of shared and standardized definitions, to inconsistency in study designs and measures of meaningful health outcomes.

- There are a number of critical gaps in existing research, especially in assessing the impact of housing interventions on certain vulnerable populations. And there is an urgent need for an interdisciplinary and integrative interventions framework that captures complex causal interactions, understands systems behaviour over time and identifies high leverage points.

- The limitations and gaps in research on housing interventions, also point to clear research and policy opportunities. In particular, the research agenda can benefit from a greater recognition of the complex dynamics of relationships between housing and population health.

Building on the existing evidence base, we have identified the following directions for enhancing knowledge, effectiveness and impact of housing interventions designed to improve population health and reduce health inequities:

- A comprehensive and coordinated research agenda on housing and health should be developed to address the limitations and gaps in current evidence and develop more robust methods.
- Housing researchers, practitioners and policy makers should develop reliable methods for measuring the health and other impacts of housing interventions.
- Similarly, housing researchers and practitioners, with representatives of interested stakeholders such as statistical agencies and relevant government departments, should develop accepted definitions and indicators that will allow accurate measurement.

- Community-based pilot projects that provide intensive opportunities for assessing interventions and expanding the knowledge base should be expanded.
- Comprehensive community initiatives and networks of multi-sectoral groups addressing complex community issues are promising.
- The wide range of governmental and non-governmental housing interventions need to effectively coordinated.
- While enabling and assessing community-driven, equity-informed housing and services interventions aimed at individual and population health will remain crucial, it will also be important to develop a comprehensive overall policy response to improving housing and other social determinants of health.

Introduction

There is an extensive body of academic, policy-related and community based literature that describes the powerful nature of housing as a social determinant of population health. The relationship that exists between poor housing (or a lack of housing) and poor mental and physical health is well-documented. From structural to social issues, there are a myriad of concerns that surface including (but not limited to): density of housing; internal conditions (such as dampness, heat, and air conditions); the presence of contaminants, vermin, or pests; special needs, supports, and resources critical for the sustainability of housing for vulnerable populations (2, 3).

The complexity of housing (including its intersection with other determinants of health) and its relationship to the health of many marginalized populations can make it difficult to determine specific outcomes related to specific interventions, and the pathways through which these interventions affect health. This complexity is compounded by the diverse needs and characteristics of populations who are particularly at risk of inadequate housing, homelessness, or who may have a history of homelessness. Although there is a strong emphasis in the existing evidence base on the impact of housing interventions in certain at-risk populations, such as homeless people with mental health (1) and substance use problems, there is a broader range of vulnerable populations whose health and well-being are adversely affected by precarious housing. These less documented at risk populations include women, Aboriginal populations, transgender people, youth mothers, racialized groups, and people with disabilities (2). While the intervention literature remains limited for these populations, there is a growing attentiveness in community-based studies to understanding the challenges and barriers that exist related to housing services for individuals who face recurrent homelessness (3), or who are excluded due to disability (4) or marginalized due to gender identity (5).

Historically, there are strong examples of broad scale interventions in public health related to the conditions of housing. Addressing overcrowding and poor living conditions has led to critical advancements in population health worldwide (4, 5). Recent efforts to improve the living conditions of individuals who are living in poor housing have involved more focused and targeted interventions, often specific to the health-related needs of marginalized groups. Epidemiological studies, both nationally and internationally, point to elevated rates of poor health amongst individuals who are poorly housed including mental illness (6), infectious diseases (Human immunodeficiency virus/acquired immune deficiency syndrome [HIV/AIDS] and tuberculosis [TB]), substance-use related ailments and injuries (7). In addition, there is a spectrum of related public health issues including greater exposure to violence. Efforts to counteract the health impacts of poor housing have taken various forms and include linking housing to support services.

Broadly, these areas of intervention (environmental, social, and interventions for special needs populations) comprise the body of work linking housing interventions and population health. The literature nationally and internationally is extensive on each of these areas, with a spectrum of disciplines and specialties including public health and epidemiology, environmental health and human geography, urban planning, sociology and social policy to name a few. Subsequently this review is limited in its review of the international literatures and at best offers a glimpse into understanding housing interventions and population health and the gaps and limitations that surface here. Where possible, we highlight the complexity of these issues with illustrations from the literature.

OBJECTIVES OF THE REVIEW

The aim of this paper is to provide an overview of effective interventions for housing and homelessness that are linked to positive health outcomes in vulnerable populations in order to facilitate the design and implementation of health-supportive housing policies and to offer recommenda-

tions on directions forward in research and practice.

METHODOLOGY

We conducted a review of both peer-reviewed academic literature and grey literature on housing interventions and population health outcomes, particularly for vulnerable and disadvantaged populations. Searches were performed in several databases (including MEDLINE, PUBMED, and Cochrane Reviews). In addition, we canvassed materials produced by government agencies, NGOs, and independent research institutes in Canada, the UK, the US, Australia and New Zealand. Due to the breadth of materials within housing and health, we restricted the time frame of the search from 2000 - 2011.

DEFINITIONS

Housing interventions reviewed in this report have been divided into two broad categories: 1) interventions targeting populations who are poorly housed, 2) interventions aimed at improving the housing status of the homeless (see definition below). For the purpose of this report, poor housing is defined as housing in a state of substandard physical and environmental condition, referring both to internal and external conditions. Examples of poor internal housing conditions that are discussed include inadequate physical infrastructure, as well as the presence of chemical and biological agents, which have been associated with adverse health outcomes. Poor external area-based or neighbourhood-level characteristics which are also discussed include inadequate access to services and poor physical and social environments.

Any discussion of housing interventions and population health would be incomplete without a discussion on homelessness. Currently, there is no universally accepted definition of homelessness in Canada. As such, we are adopting a broad and inclusive definition for homelessness that is in accordance with the United Nations, which recognizes that homelessness is not merely the absence of shelter, but rather includes housing that does not meet adequate standard of living.

CONCEPTUAL CHART

In order to provide a brief and concise summary of the broad housing interventions that have been included in this review and their impact on health outcomes, we have developed a high-level mapping chart (Refer to Appendix). This provides some guidance to the bodies of literature consulted, where these are situated in relation to one another, and the breadth of issues that fall within the scope of housing-related health issues and related interventions.

As illustrated on the chart, housing interventions have been divided into broad two categories: 1) interventions targeting the poorly housed, and 2) interventions targeting the homeless. These interventions are further subdivided into various categories and associated health benefits are subsequently displayed.

Within poor housing we identified two core fields of housing intervention research: environmental issues and interventions and social issues and interventions. We have identified interventions addressing homelessness as a category independent of these. There is a distinction in the conceptual framing of these interventions. Housing is presented as a means to address some aspects of more entrenched health and social issues (for example, mental illness and substance abuse). These issues are exacerbated by homelessness and living in poor housing but they do not have the same direct links that environmental conditions have to poor health.

Housing Interventions

The first category of housing interventions reviewed addresses poor housing condition as described above. Evidence strongly and consistently demonstrates that poor housing conditions influence health outcomes and that this occurs through various pathways. The literature on housing and health distinguishes housing characteristics which have an impact on health into two broad categories: 1) neighbourhood or area-based characteristics, and 2) internal housing conditions (e.g. physical infrastructure and indoor environmental conditions) (8). As such, housing interventions that are associated with positive health and social outcomes operate primarily through these two routes. Although the scope of this review was not limited to housing interventions that were designed specifically to improve health, for the purpose of structuring and organizing the report, interventions that address poor housing have been categorized according to the above-mentioned housing pathways through which they operate. Therefore, interventions that influence area-based characteristics are termed "social," and those targeting internal housing conditions are termed "environmental." Although extant literature categorizes interventions addressing housing as such, it should be noted that the underlying structural conditions of poor housing are interrelated in complex ways and operate on different levels; thus, evidence regarding one pathway cannot be interpreted separately from evidence regarding the other pathway. This highlights the need to exercise caution and the importance of adopting a systems lens when interpreting the evidence in this area.

The second category of housing interventions reviewed addresses the needs of particularly vulnerable populations. We highlight housing interventions to address the needs of individuals with a history of homelessness, or who are at an increased risk of homelessness. Different intervention models are illustrated and their impact on health outcomes is assessed.

ENVIRONMENTAL INTERVENTIONS

Interventions to Improve Household Safety/Physical Infrastructure

There is a strong and rich body of historical research documenting the association of poor housing conditions and health, both nationally and internationally (4, 9). Inadequate environmental housing conditions have been known to have a direct -and indirect- adverse impact on health. Environmental evidence related to poor housing and ill health is perhaps the most clearly established (10). For instance, crowded housing conditions have been associated with a higher likelihood of exposure to different pathogens which can cause various forms of infectious diseases, particularly respiratory infections (11). TB, for example, is one such disease where there is strong national and international literature indicating increased transmission rates in overcrowded conditions, both for children and adults (12-15). The connections between poor housing quality and respiratory health have also been internationally established for non-communicable diseases, such as asthma and chronic obstructive pulmonary disease (COPD). Research from the UK indicates that poor housing conditions can increase the risk of severe health issues or disability by up to 25 percent in childhood or early adulthood (16).

There are a wide range of interventions designed to improve internal housing conditions that have been associated with better health outcomes. These interventions, which are discussed in detail below, include those to address indoor temperature control, the structural integrity and safety of buildings, access to water supply, and control of chemical and biological hazards.

In a systematic review of 45 research studies, including both quantitative and qualitative, Thomson and colleagues (5) note that although the evidence on the health impacts of interventions to improve warmth and energy efficiency in the home (e.g. insulation or improvement of heating system) yield mixed effects, some research from the UK and New Zealand (measuring poor or fair self-reported health) suggests improvement in general health for both adults and children, particularly in disadvantaged

neighbourhoods. These interventions appear to have a positive influence specifically on self-reported mental health outcomes with less likelihood of stress, mental illness, and improved levels of happiness in members of participating households (17, 18). Furthermore, heat and energy interventions have also been associated with significant improvement in respiratory health outcomes, resulting in a decrease in respiratory symptoms, in particular, a reduction in symptoms of asthma, cold or flu in both children and adults, and a reduction of wheezing in children (17-19).

Apart from warmth and energy efficiency, other elements of the physical infrastructure (such as unreliable/inadequate heating systems, excessive noise levels, and faulty building construction) have also been associated with adverse outcomes. These outcomes include high rates of physical injuries related to fire, scaldings, drowning and carbon monoxide poisoning, particularly for children and seniors (20). A recent systematic review (20), supported by the US Center for Disease Control and Prevention, Office of Healthy Homes and Lead Poisoning Prevention, and the National Center for Health Housing, on interventions to address housing infrastructure and safety problems, reported that while a number of interventions were promising, sufficient evidence exists on only three to warrant widespread implementation: working smoke alarms, four-sided isolation pool fencing, and preset safe temperature hot water heaters. According to this review, these interventions are reported to be effective in reducing injuries, scald burns and deaths due to fire and drowning.

Interventions to Reduce Exposure to Household Biological Hazards

Exposure to indoor allergens is another aspect of poor indoor environmental housing conditions that adversely impacts health outcomes, particularly associated with an increased risk of asthma and or worsening of already existing symptoms, specifically for younger children. This includes exposure to biological allergens, such as fungi, cockroaches and dust mites. Although a wide range of interventions have been implemented to tackle exposure to these allergens, the literature specifically suggests only a few to be effective. One effective approach that has been proposed is a multi-pronged, targeted home-based interventions for asthma, including environmental assessment of the home, education, the provision and use of vacuums and HEPA (high efficiency particulate air) filters, use of mattress and pillow covers, cessation of smoking and reduction of second-hand smoke exposure, intense household cleaning, and cockroach and rodent management, according to an extensive review of the evidence conducted by Krieger et al. (21).

Evidence from another systematic review (22) on the effects of housing interventions on children's health suggests that eliminating the source of exposure to dust mites, such as replacing old carpet and bedding, yields improvements in asthma outcomes for children in low-income families. Integrated pest management for the control of cockroach infestation, and a combined eradication of moisture and mould in homes are among the interventions that have also been noted to have a positive effect on asthma outcomes (21). The use of dehumidifiers to reduce moisture and air filtering equipments appear promising, although sufficient evidence for implementation is currently lacking (21).

Interventions to Reduce Exposure to Household Chemical Hazards

In addition to biological hazards, poor environmental housing conditions can also increase the likelihood of exposure to chemical agents, including lead, radon gas, second-hand smoke, volatile organic compounds, and pesticides, for low-income families or those living in congregate settings. Sandel and colleagues (23), in their review of the evidence on interventions designed to control biological agents, conclude that the most effective interventions include active radon air mitigation through soil depressurization, integrated pest management for pesticide control, smoke-free policies, and lead hazard control. These interventions have been linked to a reduction in cancer incidence and death as a result of reductions in radon levels; reduction in morbidity and mortality associated with second-hand smoke including acute coronary symptoms; reduction of neurological problems associated with pesticides; and a reduction of blood lead levels, and associated lead poisoning cases, particularly in children (23).

It is important to note that key interventions, particularly those related to smoking, can have wider health implications, beyond cancer and cardiovascular related outcomes. For example, evidence

strongly supports the association of TB outcomes and smoking (both active and passive), in that smoking increases the likelihood of acquiring infection given exposure, as well as the likelihood of disease progression (24). This is also linked to housing density or crowding, for isolated First Nations communities in Canada (13), where smoking, crowding, and tuberculosis rates all tend to be significantly high. As such, interventions that address smoking-related hazards in the home (especially in shared accommodation settings) would not only affect chronic disease outcomes, but could also potentially reduce the spread of respiratory infectious diseases, particularly TB, in Aboriginal communities who reside in rural northern areas of Canada.

Interventions to Improve Water Supply

The lack of adequate and clean water supply and proper sanitation facilities also contributes to poor housing conditions and is associated with other infectious diseases such as skin infections (25) and diarrhoeal disease (26). In remote Aboriginal communities this may be more pronounced. In Australian Aboriginal communities facing poor environmental housing conditions, some evidence suggests that the presence of proper sewage removal facilities for housing has the strongest impact on reducing childhood skin infections (25). Moreover, public health evidence also indicates that water provision and adequate sanitation when combined with hygiene education yields positive health effects, particularly in reducing childhood diarrhoeal disease in these disadvantaged communities.

While access to water may not typically be an issue in urban centres in developed countries, it has recently been identified as an area of heightened vulnerability for some. Financial constraints may limit access to and use of affordable water supply in poor communities. Such conditions are likely amplified in poor or unstable housing, where issues of poor sanitation can contribute to poor health, or where dehydration may worsen pre-existing health concerns (27). Similarly, recent research in the UK suggests that some communities may be vulnerable in unanticipated ways. The Joseph Rowntree Foundation notes that people who reside in poorly constructed homes or in "urban heat islands" ("places that absorb heat over time because of the local built environment" (27)) may suffer compromised health as a result. This is especially true for the very young, elderly or those with respiratory problems (27). Such unexpected risks may exist in other vulnerable communities, such as high density apartment buildings where poverty is concentrated (28).

Summary

The above summary of evidence demonstrates that poor housing does have a significant health impact. Evidence would appear to be more mixed on what kinds of policy and program interventions work in ameliorating this impact. This may be partially the result of methodological limitations: most studies are of single interventions or of particular populations or service or geographical settings, but housing and health are shaped by a complex set of interdependent and dynamic factors. This could imply that more multi-pronged and cross-sectoral interventions may be more effective. There are promising indications of this potential.

Healthy Housing Program

Healthy Housing is a program implemented by New Zealand's Housing New Zealand Corporation, a government agency that provides housing services to those in need. This is an example of a unique and innovative initiative designed to address the health and housing needs of disadvantaged people living in substandard housing conditions, most of who are from Indigenous communities. This program takes a comprehensive, cross-sectoral and multi-pronged intervention approach to meeting the health and social needs of tenants who are precariously housed. A unique strength of the program is its foundation on a participatory model to assess the needs of families and individuals and to best address both environmental and social housing conditions, while simultaneously facilitating access to health and social services. Evaluations of program effectiveness suggest an overall improvement in the health and well-being of the tenants, including a reduction in disease incidence (e.g. asthma and other respiratory diseases, meningitis), personal injuries, risk factors for chronic conditions

such as obesity (e.g. reduced mobility), and self-reported hospitalizations. Moreover, there are indications of improved social outcomes, as families reported improved living environments contributed to an increased sense of social cohesion and a sense of belonging. The evidence suggests that the impact of this initiative on health and social outcomes is not only effective, but also sustainable (29).

In addition, researchers in population health are looking outside of the scope of traditional public health interventions to non-traditional mechanisms for introducing and effecting changes to housing and health outcomes. Edwards and Speer (30), for example, raise the idea of drawing on legal mechanisms as an intervention to support better housing. Enforcing building code by-laws could be a means to improve housing conditions, particularly in disadvantaged and marginalized communities. As of yet, however, this work remains only a proposal, and would realistically require considerable interdisciplinary and inter-sectoral collaborations to implement. Nonetheless it suggests new and innovative areas to consider for environmental interventions related to housing and health.

SOCIAL INTERVENTIONS

Relocation and Rental Assistance Interventions

Although the term social intervention may be subject to different interpretations, the literature on housing interventions recognizes interventions addressing neighbourhood-level characteristics as social, whether in the form of neighbourhood revitalization, public housing, or relocation. In North America, particularly in the United States, interventions addressing area-based characteristics of housing have primarily been in the form of tenant-based rental assistance programs geared towards relocation. The US-based programs of Housing Allowance Experiment, Section 8, and Moving to Opportunity (MTO), are examples of housing interventions that have been implemented in cities across the country, primarily designed for relocating disadvantaged and low-income families from high-poverty neighbourhoods to low-poverty neighbourhoods by providing them with rent subsidies and giving them the opportunity to seek housing in the private rental market.

The MTO program, for example, was an experimental relocation program carried out by the US Department of Housing and Urban Development agency (HUD) in five US cities between 1994 - 1998. Funding for the program was primarily provided by HUD, with 70 million dollars in rental assistance, and additional funding support was provided by national and local housing authorities as well as non-profit organizations who participated in the program (31). An estimated 4,608 families were eligible for the program, of these, 3,169 were provided with rental support and 1,676 were able to successfully relocate (31). Eligibility for the program was based on prior residence in public housing in a neighbourhood with at least a 40 percent poverty rate, and having children under the age of 18 years old. Relocation was only permitted to neighbourhoods with a less than 10 percent poverty level. The major difference between Section 8 (the national US tenant-based rental assistance program provided by the US Department of Housing and Urban Development) and the MTO programs is that the MTO had restricted neighbourhood eligibility criteria as outlined above, as well as providing housing counselling to qualifying families, in addition to housing vouchers. The objective of the program was to assess the impact of relocation to low-poverty neighbourhoods on the lives and well-being of low-income families residing in public housing in high-poverty neighbourhoods.

Because this was a large-scale randomized, experimental project, both control and comparison groups were also selected from the eligible pool of 4, 608 families. A total of 1140 families who were offered no assistance and remained in their neighbourhoods were selected as controls, while a total of 1,350 families who were given Section 8 vouchers (with unrestricted neighbourhood eligibility) were selected as a comparison group (32).

An impact evaluation of the MTO program was conducted two years following program implementation. This evaluation focused on 540 households in Boston. The findings suggest that relocating to a low-poverty neighbourhood may be linked to better health outcomes for children,

especially in injuries and cases of asthma requiring medical attention (33). It is not clear whether this was due to the intervention itself, or related to a shift in some external contextual or circumstantial elements. One possibility is that relocation may disengage people from routine services, giving a false perception of reduced health care use and therefore of a decreased need (34). An evaluation of MTO programs focusing on mental health impact from several cities suggest positive mental health outcomes, particularly for low-income mothers, children ages 6-13 and female youth, ages 13-19 (32, 35). A large-scale, longer-term evaluation of the MTO program after 5 years (31) goes on to demonstrate improvement in physical conditions and safety for adults, female youth, and children, and it appears that this may be one mechanism through which neighbourhood-level characteristics influence mental health (32). The greatest improvement in physical health for adults was a reduction in the incidence of obesity (31), which may reflect greater access outdoor spaces.

A recent extensive review (32) of evaluations on the MTO programs across the US suggests that relocation interventions may yield differential impacts by gender and age related to mental health outcomes. For example, mental health outcomes for male youth ages 13-19 were substantially different and were associated with little impact, no change or negative impact in some cases (31). The evaluations suggest that this differential impact for boys may be due to less social integration in the newer neighbourhoods, and possible exposure to discrimination (32). As such, it is essential for gender-based analysis to be incorporated into research and program planning for poorly housed populations.

The US-based evidence from rigorous systematic reviews (8, 34, 36) suggest that tenant-based rental assistance and relocation interventions are associated with better overall health outcomes for a number of low-income marginalized groups, (including African Americans and Hispanic populations, women, children, and youth) and thus have the potential to play an important role in reducing systemic health disparities. Two of these extensive reviews (8, 34) report that for families with low socio-economic status, specific health outcomes include improved mental health status in both adults and youth as a result of reduced symptoms of depression and anxiety; feeling of safety for both adults and children in the new neighbourhoods as result of less perceived exposure to neighbourhood violence and social disorder; reduction of risky behaviours in youth, both in schools and homes; and reduction in the frequency of incarceration due to crimes committed by youth. Furthermore, the improvement of substandard housing conditions that posed health risks such as non-functional plumbing, rodent infestation, and poor safety measures, have also been reported by one study as having particular relevance (34).

There is growing literature in Canada and internationally that focuses on the relationships between place and health and well-being outcomes. Area-based interventions, while organized geographically, have been typically directed at individuals rather than tackling the contextual factors or structural issues (37). Locally there have been some notable exceptions including efforts to address the housing-related needs of “vertical communities” (28, 38). Vertical communities is a phrase used to distinguish the particular experiences and needs of residents in high rise apartment buildings. While often overlooked in discussions on housing, these communities have recently gained attention for dense concentrations of poverty (28). The connections between health and poor conditions in such communities are clear and include poor structural conditions, overcrowding and vermin infestations. In a number of urban centres (including Toronto) there are initiatives underway to direct attention to the needs of vertical communities including efforts to repair and restore the quality of such housing and promote mixed income buildings. Internationally a movement around Healthy Cities has strived to conceptualize area-based initiatives more broadly. These developed around practical, regional interventions to address health disparities and address the social determinants of health at the community level in urban centres. Problematically, the evidence around such initiatives has been fragmented and offers little insight into effective strategies across settings and populations (39).

Neighbourhood Revitalization

United Kingdom

In the United Kingdom, there is a growing body of work focused on revitalizing neighbourhoods in which low-income and marginalized groups reside (also known as urban regeneration, or area-based initiatives). Such interventions in the UK include national, multi-agency area-based initiatives such as Single Regeneration Budget and the New Life Urban Scotland. Evidence on the effectiveness of these interventions is highly variable (40). Some of these area-based strategies have explicitly focused on reducing health disparities: for example, the Health Action Zones (HAZ) in England were designed to bring together government, community and other stakeholders to develop integrated local plans and to coordinate and link diverse needs and services including employment supports, housing, education, social services and healthcare programs to address local health disparities (41, 42). This initiative was short-lived. Critics argued that the HAZ initiative lacked focus and direction. A more balanced view may be that such initiatives were under-resourced while striving to reconfigure complex and well-established systems of care and services. British area-based strategies have been promising in terms of service innovation and more integrated planning. However, a commitment to investment and comprehensive, longitudinal research would be needed to assess longer-term health and social outcomes.

Canada

In Canada, neighbourhood revitalization programs have been initiated in a number of cities across several provinces including Vancouver, Ontario, Quebec and Manitoba. Although diverse in scope, these initiatives have been established and funded through a partnership between local, federal, and provincial governments, while they are often community-based and more specific to local needs. An example of this is the Toronto-based Regent park neighbourhood revitalization and social development initiative (43) which recently received over half a million dollars in funding from the government. This initiative is focused on replacing 2,083 old rent-geared-to-income housing units and developing an additional 3,000 new units some of which will be offered at an affordable price for low-income families, while others will be based on market rent in order to create mixed-income neighbourhood. In addition, it is expected that the project will enhance community capacity, improve service provision, and address the wider social adversities facing the community in this neighbourhood (43). Although these initiatives are considered promising, particularly for social outcomes, evaluation studies are currently limited, especially for health outcomes. This could possibly be explained by longer time frame for real effects of the interventions to be realized. An important consideration in such housing and neighbourhood based initiatives is the emphasis on "mixed income" settings, which is believed to lead to better social outcomes and less likelihood of "entrenched" communities of disadvantage (28).

HOUSING INTERVENTIONS FOR THE HOMELESS

In the literature on housing interventions and health, there is a substantive body of work devoted to the development and testing of housing models for individuals with a history of homelessness and those with complex health needs (for example mental illness and substance abuse issues). Much of this work has been limited to the design and implementation of housing programs in large urban settings. Studies of such interventions are broadly representative of the homeless population in terms of demographic make-up; reflecting a greater representation of men than women, a significant sub-population affected by severe, and persistent mental illness, and recurring substance abuse issues.

However, much of this work remains restricted to relatively small populations, testing interventions on a project-by-project basis. There is, as a result, no evidence that reflects large scale, population-based initiatives. Instead much of the evidence reflects singular housing initiatives at one point in time, or more encouragingly, projects over some duration (up to 5 years). While few have studied the longer-term impacts of such housing interventions, most offer some evaluation of their effectiveness in reducing key markers such as housing stability, and the use of alternate services (including hospitals and treatment facilities).

Research that examines housing outcomes and health tends to focus on specific associated conditions and symptoms. Housing interventions for people with mental illness or a history of homelessness often place their emphasis on a reduction in substance use, psychopathology, and the sustainability of housing over time, while for individuals with HIV/AIDS housing status is noted as well as adherence to use of anti-retroviral treatments (44). The evidence, as a result, remains largely focused on housing outcomes for subpopulations with specific (and sometimes complex) health needs. There would be clear value in contrasting the differential risks that may come with unstable housing, as well as the benefits that stable housing can yield across vulnerable populations.

The evidence in this field is comprised of work of varying methodological rigour. There are few experimental and quasi-experimental studies conducted, although they do exist. More commonly there is a strong body of work that is "practice-based" which can offer some insight into program delivery but remains methodologically weak. Assessing the effectiveness of any of the models of housing interventions for the homeless is made more complex by the integration of housing and support services to meet the physical and mental health needs of tenants.

Different approaches have been employed when delivering combination of support services and housing programs, categorized in the literature as "supportive housing" and "supported housing" (81), although the two may not always be clearly differentiated. Services take different forms in supportive housing and can range from relatively minimal case management services to more intensive versions of ongoing care, including comprehensive treatment in the form of Assertive Community Treatment (ACT) teams. The intensity of such supports varies and may be provided onsite through the housing provider, or "de-linked," offered through providers that are external to the housing service (45). Whereas, in supported housing, support services are not integrated into the housing service. Individuals are in independent housing and any participation in support services takes place in agency based or community-based settings that are offered off site, not integrated as part of housing placement (82). Recent research work commissioned by the Wellesley Institute provides a comprehensive overview of the characteristics of supported housing, including both resident and provider perspectives (82). According to this research, service providers believe that stable housing provides residents with an enabling environment, enhancing their participation in community living, and resulting in an increased self-confidence.

It is important to note the relationship between services and housing for some populations; housing interventions are linked in critical ways to health and support services, and to some extent, the effectiveness of such interventions cannot be separated from services (46). The international evidence on models of housing interventions are, in effect, comparisons of different configurations of treatment or care services as well as models of housing design and placement. While the existing evidence on supportive housing centers on investigating the impact of supportive housing on users (individuals who have a history of homelessness and complex health needs), the broader community level impact of providing such services has received little research attention. However, small scale local community based initiatives, such as that of the Dream Team (83) in the city of Toronto, have attempted to explore the neighbourhood level impact of supportive housing provision.There are, broadly, two models of housing intervention for individuals with a history of (or risk of) homelessness, mental illness and/or substance abuse: the Continuum model and the Housing First model. A consistent element of both forms of housing is some link to support services, as described earlier. The nature of support services varies, but typically includes some configuration of mental health services, drug and alcohol related support services, as well as life skills training and may be mandatory or offered on a voluntary basis. The interconnectedness of such services to housing means that housing interventions for this population place a marked emphasis on specific health issues, such as mental illness and substance abuse. This relationship is critical to be aware of because the success of some programs has been linked with the integrated availability and use of such services.

Dream Team

The Dream Team is a Toronto-based group made up of individuals living with mental illness. They advocate/lobby around issues related to mental illness actively challenging the often held negative perceptions of supportive housing. The Wellesley Institute supported the Dream Team to look at the impact of supportive housing on communities over time; how it impacts on property values, crime rates and overall quality of life in those neighbourhoods. Using two sites in downtown Toronto, Dream Team members conducted interviews with residents, neighbours and local business owners. Their findings highlight that the buildings had no negative effect on property values or crime rates. Furthermore, they indicate that tenants can have a positive impact on neighbourhood well-being by contributing to the overall neighbourhood cohesion, and economic well-being as they contribute to local businesses. This work is unique in its ability to draw strong links between "local" evidence and broader bodies of evidence, contributing to growing community-based research work on housing interventions (83).

There are, broadly, two models of housing intervention for individuals with a history of (or risk of) homelessness, mental illness and/or substance abuse: the Continuum model and the Housing First model. A consistent element of both forms of housing is some link to support services, as described earlier. The nature of support services varies but typically includes some configuration of mental health services, drug and alcohol related support services, as well as life skills training — and may be mandatory or offered on a voluntary basis. The interconnectedness of such services to housing means that housing interventions for this population place a marked emphasis on specific health issues, such as mental illness and substance abuse. This relationship is critical to be aware of because the success of some programs has been linked with the integrated availability and use of such services.

CONTINUUM MODEL

The "continuum" model (also known as the "staircase" model) is where housing placement is a staged process; the individual moves through transitional settings from shelter to (ideally) permanent housing placement. In this framework, housing readiness is linked to the resolution of any treatment issues. This is illustrated by adherence to a medically defined treatment plan (for mental illness) or by abstinence (for alcohol and drug use).

The continuum model has, historically, been the model of choice both in Canada and internationally (47-50). Within this model, housing can take different shapes at different stages: from emergency shelters and transitional housing to shared/group housing placement, to fully independent accommodation. At the different stages there can be differing levels of support and supervision, with the majority of housing programs contingent on abstinence from alcohol and drug use and compliance with treatment plans (which may include ongoing mental health and substance abuse treatment, as well as life skills training).

The evidence as it stands on "continuum" models of housing interventions remains conflicted. Some researchers have argued that these approaches have broadly achieved their goals of providing stable, safe and secure housing to vulnerable people with special need and, for many, addressed goals of transitioning people through stages of life skills training and housing readiness to permanent or settled accommodation (49). Nelson and colleagues (46) in their review of studies of housing interventions note stronger findings in housing placements where support is an integral part. Although limited, some of the research reviewed by Nelson et al. suggest improved health outcomes for individuals with mental illness, including reduced hospitalization and substance use (46). This is consistent with the evidence in specific studies.

Where housing is contingent on abstinence, the evidence remains mixed, especially for

those with a history of chronic or prolonged homelessness. Some evidence reports positive effects of this model for homeless individuals who are undergoing treatment (51) and those who have completed treatment (52) for substance use, compared with those receiving housing referrals without drug or alcohol treatment. The results suggest a decrease in substance use, incarceration rate, and an increase in employment and monthly income, and housing stability.

While the continuum model remains a dominant framework of intervention for vulnerable populations, there are several important limitations to this model. The demands of housing readiness may fail to appreciate the complex health-related needs of vulnerable populations, effectively punishing people who fail to maintain abstinence or who struggle with expectations of medication or treatment compliance. Moreover, this model may fail to appreciate the cyclical nature of such health issues, limiting therapeutic progress to periods of conformity rather than advancements in the day to day management of complex health conditions (49).

Finally, a key critique of this housing model is that people may get 'trapped' in prolonged stays in transitional settings rather than moving on to permanent housing (50). Expectations around abstinence to alcohol/drugs may heighten this as many permanent housing programs insist that residents have a documented period of uninterrupted abstinence from alcohol and drug use. Moreover, for individuals with a history of psychiatric illness, compliance with treatment expectations is not without problems. Adherence to psychotropic medications is a contested issue for individuals in recovery. In addition, the cyclical nature of mental illness may mean that people experience recurring symptoms in spite of adherence to ongoing treatment. These conditions may undermine the very intent of such services, creating a bottleneck of individuals who remain in poor or substandard "temporary" accommodation.

HOUSING FIRST

Critiques of the continuum model of supportive housing led to the emergence of a new model: Housing First. The Housing First (HF) model approaches recurrent homelessness, mental illness and substance abuse from the starting point that the individual should be given housing first, and then offered support services to meet their varying needs. This model endorses a harm reduction philosophy, which stresses the importance of reducing adverse consequences associated with substance use rather than mandating abstinence, while providing a safe and supportive environment (84). Individuals are not expected to be abstinent or medication compliant, but are expected to meet some minimal conditions around meeting financial obligations and take part in a money management program. All other support services are made available but remain voluntary. Developed by New York's Pathways to Housing in 1992, this model has provided persuasive data as an intervention to address the issue of recurrent homelessness, and to address mental illness and substance abuse issues in a humane and de-stigmatizing way (53).

Using scattered site apartments, the HF model strives to integrate individuals into the surrounding community, rather than segregating them in specific buildings. This has in recent years become a distinguishing mark of the original HF configuration developed by Pathways to Housing in New York. Adaptations to the model in other settings may not be as well-documented as the Pathways program, and can complicate our understandings of who this program works for and under what conditions.

The Pathways to Housing evidence is compelling. Their greatest indicator is housing stability, with 85 percent of tenants (n=242) still housed at 5 years follow up, as contrasted with people housed in continuum models of housing for the same time period (53). Recent evidence suggests that Housing First clients who are dually diagnosed spend less time in hospitals for psychiatric outcomes (54). The effect of the HF model on substance use remains somewhat conflicted; with some studies reporting little or no effect, and some suggesting a small but notable trend to reduced use (50, 55). Further research focusing specifically on homeless people affected by severe mental illness (56) suggests that supportive housing provision for this population yields significant reduction in inpatient and outpatient hospitalization days, shelter use, time jailed, as well as annual cost associated with service utilization. However, the study only reports the results for the overall population, thus it is unclear whether there is any differential impact due to demographic differences, particularly gender. Recent research from Pathways is striving to

understand the experience of tenants in greater detail, including the unique vulnerabilities they may have (e.g. women with a history of homelessness have a greater history of sexual abuse) and the implications of this for housing stability and a more complex understanding of what periods of increased treatment indicates (not relying on a simplistic reading of symptoms and needs of residents) (57).

The popularity of HF internationally is well-evidenced by initiatives in Canada, Australia, Finland, the Netherlands, and others (49). Interest is growing, with new programmes under consideration in Sweden and the UK. The success of Housing First internationally is, however, too early to predict. The evidence of its implementation remains largely within the US. It would be important to look to the emerging international evidence as to whether the success of the US-based model can be easily and successfully imported (and adapted for different contexts) (48).

Research on the effectiveness of Housing First models in Canada in limited. The Streets to Homes program in Toronto has demonstrated overall success for reducing homelessness, as well as an improvement in many quality of life indicators among its tenants, consistent with the US evidence (Toronto Shelter Support & Housing Administration, 2007 models (58). Demographically, these programs (and studies) share common characteristics with those in the US, with the majority of residents being male, adults between (age 25 to 57). Unique to the Canadian study is that 26 percent of the participants are identified as Aboriginal. This may have implications for the needs of Canadian residents, and the ability of a HF model to adequately address these needs. The significant number of Aboriginal participants is important in the Canadian context because, while Aboriginal people comprise a tiny portion of the overall population, research and other reports indicate that they bear a disproportionately large burden of poor housing and homelessness, and the attendant health issues.

Findings of this program demonstrate a decrease in: utilization of hospital emergency services; incarceration; homelessness; and shelter use, and improvement in self-reported health, stress, personal security and mental health. In contrast to evidence from the US, results from this program suggest reduction in alcohol and drug consumption after a year follow-up. This study also indicates that those who felt they had a choice in the type of housing they received reported the highest level of satisfaction and contentment. Criticisms have been made about the Toronto initiative with respect to affordability, however, with rent changes cited as sometimes exceeding the recommended limit of 30 percent of monthly income (47). These types of variations in the implementation of HF models can have important implications for its success, and may unintentionally heighten the vulnerability of residents, reducing the health-related benefits of such residency.

More recently a large scale initiative operating across Canada is looking to evaluate the Housing First model of housing for individuals with a history of homelessness and mental illness. At Home/Chez Soi, a large-scale, longitudinal, national research project is currently underway investigating the impact of Housing First interventions in five cities across Canada (59). Within this study, different formats for support services will be contrasted, offering in some respects a unique glimpse into supportive housing services. This is a promising initiative that is expected to produce a body of evidence specific to the Canadian context which will inform best practices, and help support the development of a comprehensive national strategy to address homelessness in Canada.

In addition to the prevalence of mental illness and substance use among some homeless persons, another disease of concern affecting this population is HIV/AIDS. A large body of evidence on health outcomes of HIV-infected homeless people demonstrates greater utilization of emergency services, more frequent and longer hospital stays, and a reduction in the use of both prophylactic and antiretroviral treatments (60). Research evaluating the impact of supportive housing provision for HIV-infected persons after diagnosis suggests a reduced risk of mortality due to obtaining housing, when compared with those who did not receive housing (60). In this study, 23 percent of those receiving housing were female, a high proportion were in the 30-49 age group, and more than 60 percent belonged to minority groups such as African American, Latino, and Native Indians. HF interventions, which included intensive case management services for HIV-positive patients, also report improvement in survival, compared to

patients who did not receive housing support (61). For this study, participants were on average 45 years of age, 28 percent women, and 91 percent African American. Given such impact on vulnerable population groups who suffer disproportionately from HIV/AIDS, among many adverse health outcomes, the results suggest that targeted supportive housing strategies for racialized groups affected by homelessness and HIV/AIDS have the potential to not only improve population-level health outcomes for this disease, but also address health disparities.

Models of housing intervention include a broad range of options: from structured, service rich models of care, to ones that emphasize the autonomy and independence of residents (where links to services are offered but not mandatory) to emerging innovations in "peer-led" configurations. For policy makers, the persistence of the problem and the diversity of programs pose real challenges as they strive to identify what models are best suited to support individuals and communities, under what circumstances. In addition there are important limitations and gaps in the current body of research evidence on housing interventions and population health in Canada and internationally. There is little coherent evidence on supportive housing with certain populations and/or in certain contexts such as remote Aboriginal communities (62).

Research Limitations and Gaps

Conceptually, much work in the area of housing intervention research approaches it from the perspective of addressing a specific health issue, whereby housing is the intervention. For example, there is a vast literature seeking to address recurrent homelessness and the concurrent disorders of mental illness and substance abuse. This work offers a considerable value to demonstrating how stable, secure and sustained housing can contribute to a reduction in symptomatology and reduce episodes of homelessness. However, the literature remains poorly defined in terms of other health outcomes or limits the discussion on type of housing to type of support mechanisms.

Methodologically there are challenges in interpreting this work at a broader level. Health and social science research within communities often struggle with the real-world difficulties of study design; while randomized control studies are often regarded as a methodological "gold standard," these are notoriously difficult to implement at the community level. Moreover, critical ethical questions surface about their appropriateness in situations where populations may be at a disadvantage or are in need. There is as a result a wide range of study designs that have been used, each conveying different aspects of the nature of interventions. This inconsistency in study designs proves difficult for pooling insights on the health outcomes from different approaches. It also means that there is a limited ability to generalize findings across populations and contexts. In addition there is a lack of consistency in outcomes within studies using the same study designs. This in itself is not a methodological limitation; however, the body of evidence is limited in that this work has not been brought together, critically analyzed and evaluated to shed some light on why disparate patterns may occur and what we can learn from this.

Seldom does this work delve into the range of housing related factors that may shape population health beyond individual social determinants of health. Subsequently, there is limited insight into the interdependent and cumulative effects of social determinants of health and housing. For example, the ways in which poverty and social exclusion shape access to housing, and how inadequate housing and its resulting adverse health impacts can in turn affect employability and social connections. Place-based research in health suggests that inadequate housing and other adverse determinants of health can have reinforcing and cumulative effects over individuals' life course and on the conditions of particular neighbourhoods and communities (for example, the concentration of disadvantage in urban neighbourhoods) (63, 64). Yet it may be harder to achieve consensus on the nature of interventions and practical initiatives (what works, for who, in what contexts) and ways to meaningfully evaluate them. Finally, it is important to recognize that the nature of communities is dynamic; how housing functions as a SDOH or, interacts with other determinants may differ by context and circumstances.

Definitions of communities and those at risk for poor housing and homelessness emerges as a ongoing issue. There are inconsistent definitions (or sometimes a lack of definition) of homelessness, individuals who are marginally or poorly housed, and other indicators of vulnerability and disadvantage. For some populations, there is limited attention at best. Aboriginal communities (especially those living off-reservation) receive inadequate attention with respect to housing and population health. Individuals who may be economically or socially marginalized are likely to be unduly vulnerable including seniors/elderly, youth, newcomer, ethnic minorities, and members of the LGBT communities (such as transgendered individuals who may be particularly vulnerable).

Women remain under-represented in much of the work, in part due to the over-representation of single men who are homeless or in temporary accommodations. Research on women and housing needs has suggested that women are more strategic in the ways they avoid street or shelter based homelessness, including a greater use of dating relationships as ways to avoid ending up homeless (65). With limited resources to support women in need (beyond shelters for victims of violence) such speculation is not surprising. Finally, individuals with physical, developmental and mental

disabilities are often overlooked as populations that may be vulnerable. Their needs are in some respects overshadowed by the more extreme manifestations of mental illness or by the urgency of needs for those with substance abuse histories or recurrent histories of homelessness.

Finally, this review raised some additional methodological observations that warrant attention:

- The absence of baseline data (such information may be collected but is often under-reported by studies). This makes it difficult to interpret the effectiveness of interventions. Moreover without a comparison group – whether a comparable sample, or having individuals compare their previous to current functioning, we are left to speculate on the effectiveness and interpretation of findings.
- Most health outcomes that are discussed in the housing interventions literature rely on self-reported health status rather than measured outcomes. This is important to note as some self-report data may be more or less reliable than others. Revealing information that could be stigmatizing or marginalizing may prove less reliable, for example, substance use patterns or the presence of psychopathology, where individuals feel a social need to under-report.
- Limited research is available on the impact of housing interventions on outcomes of key chronic diseases (e.g. diabetes, obesity cardiovascular disease, and cancer) as well as infectious diseases such as skin infections, TB and other respiratory communicable diseases. The pervasiveness of chronic mental illness and substance abuse may overshadow these critical health issues and how they intersect with poor housing conditions.
- There is an absence of well designed longitudinal studies of interventions targeting both the homeless, and the poorly housed. A commitment to more comprehensive studies over time could yield critical insights into the effectiveness of interventions and the unanticipated ways in which housing and health intersect.
- There is a growing body of economic analysis for housing intervention research. While it is beyond the scope of this review to consider this evidence, it bears highlighting. Like much of the broader research evidence on housing interventions this work often operates in isolation, reflecting isolated cost-benefit analysis of individual programs or interventions (66). A potential area of future research would be to bring together work conducted in this area, and see whether it could be situated within an economic understanding of the impact of the social determinants of health.
- Finally, we can learn a great deal about housing conditions, housing interventions, and health outcomes if we commit to more comparative research. We suspect that there are strong differences in how housing interventions may take shape in one context over another, locally, regionally, nationally and internationally.

It is essential to be cognizant of these methodological and conceptual challenges in interpreting housing intervention evidence for policy purposes. In addition, it is critical to appreciate the dynamic, inter-connected and complex nature of the factors that shape issues such as the health implications of specific housing interventions; this complexity means that the impact of interventions will be demonstrated on a longer time scale. More encouragingly, there is emerging work that has potential to yield considerable evidence about the intersections between health and housing interventions. As an example of the kind of comprehensive research needed, the John D. and Catherine T. MacArthur Foundation in the US recently awarded significant projects to consider the role that housing plays in the long-term health and well-being of children, families, and communities. Housing Matters is a five-year research initiative that is currently underway to consider in depth the impacts that investments in housing have on health, social and economic outcomes. Such projects have great potential to broaden our understanding of the connections between housing models, economic interventions related to housing and health outcomes in disadvantaged communities.

The complexity of intersecting social, health and policy environments in which interventions are applied also means that it is extremely difficult to attribute specific outcomes to specific interventions. This is not to suggest that we should not be viewing evidence-based research as a critical component of policy development. Rather, we need to be aware of inevitable limitation of research evidence and exercise flexibility in our interpretation.

Enabling Health-Supportive Housing Policies

This review of academic and non-academic literature has identified key policy directions that could contribute to enabling more health-supportive housing policies. While good evidence does exist, we have identified significant gaps and limitations in current research on effective policy and service interventions. In order to better inform the development of national health-supportive housing policies, a coordinated research initiative – integrated with Canada Mortgage and Housing Corporation's ongoing research agenda and drawing in other partners as appropriate – is needed.

Practical and reliable frameworks and methods for assessing what health-supportive housing interventions work effectively, in what contexts, is crucial to building and supporting effective interventions in different regions across the country. There has been significant development – and considerable discussion within certain circles of the Canadian government – of innovative approaches to evaluating interventions addressing complex social problems that can be drawn upon (67, 68).

Leading international and domestic authorities have noted that there is no generally accepted definition of homelessness in Canada, nor are there reliable indicators at the national or sub-national level. In addition, the most commonly used indicator of housing need in Canada – core housing need – includes only three of the eight dimensions of adequate housing as set out in international human rights conventions. Other countries, including Britain and New Zealand, have more robust definitions and detailed sets of indicators.

Common definitions and reliable measurements are an important foundation of effective policy: to measure the scale and dimensions of need, set reasonable targets and timelines, measure and report results, and evaluate impact and effectiveness. PHAC could champion cross-departmental coordination and inter-governmental FPT coordination to develop common measurements and indicators for this and other social determinant of health-related problems.

In addition, there have been a number of community-based pilot projects on health-supportive housing interventions that have yielded important information, but more work can usefully be undertaken. For instance, we cited research on HIV/AIDS and supportive housing demonstrating positive health impacts. What are the key success factors here and how could they be adapted to other populations and contexts?

Promising examples of multi-sectoral interventions from New Zealand and the UK have been reviewed. The comprehensive scope and integrated delivery of these programs could be adapted through demonstration projects for Canadian contexts.

We expand four key policy directions below.

COORDINATING GOVERNMENTAL AND NON-GOVERNMENT INITIATIVES

The federal government already has a variety of housing and homelessness initiatives in several departments. Provincial and territorial governments similarly operate a range of programs across multiple departments, and municipal governments, Aboriginal organizations, non-profit and community groups and private sector interests are involved in delivery. There are some models of collaboration among governmental and non-governmental groups (including the federal Homelessness Partnership Strategy, which is delivered through provincial agreements and 61 community entities). Further enhancing overall policy and program coordination and funding evaluations of the health impact of housing policy and service interventions could be considered. Such directions would be in line with the recent Senate Subcommittee report's (69) recommendations on policy coordination and cross-sectoral action needed to address social determinants of health.

The Wellesley Institute's Precarious Housing in Canada includes a series of policy options that including legislative, programmatic and funding initiatives (70). Other governmental initiatives to create more affordable housing including mandatory inclusionary housing policies, such as those

widely used by municipalities and state governments throughout the United States. The Wellesley Institute has produced a series of case studies on inclusionary housing practices for Canadian policy-makers (71).

Housing experts and advocates report that there is little co-ordination among the various levels of government in terms of the patchwork of funding and programs that are available to stimulate new housing and maintain existing stock. Ontario's Long-term Affordable Housing Strategy, released in 2010, allows municipalities (which have the lead responsibility in Ontario for housing and a number of other human services programs) for effective integration of policies and programs at the local level. The Seven Cities Partnership in Alberta grew from a series of local initiatives in Calgary, Edmonton and five other cities into a regional and ultimately a provincial hub that has effectively engaged the provincial and municipal governments, along with the community and private sectors (72).

COMPREHENSIVE POLICY RESPONSES

There have been influential recent World Health Organization, European Union and other international reports, and leading jurisdictions have developed comprehensive and integrated strategies to address health disparities and the social determinants of health. Common features include broad attention to the underlying structural roots of inequality; the need to coordinate government responses across departments; creating forums for joint policy development and coordination (from senior planning tables to requiring health impact analyses of all relevant legislation); cross-departmental targets and incentives (i.e. so expectations on finance and social service ministries include addressing relevant social determinants of health); and coordinating local adaptation and implementation of national strategies.

Part of this has been the development of new policy tools such as Health Impact Assessment, or more specifically, Health Equity Impact Assessment. These tools are often seen as part of a broader approach that addresses the health implications of policy and legislation across many departmental spheres -- often called health-in-all policies. There has been considerable attention within Canada and abroad to this more integrated approach to policy development.

BUILDING ON THE POTENTIAL OF EFFECTIVE COMMUNITY PRACTICES

We have identified a variety of promising community practices on health-supportive housing interventions. In Manitoba, for example, the province is transferring control to the Sagkeeng First Nation Housing Authority to manage housing for First Nations individuals and families living off-reserve. This marks an important step towards establishing and building the capacity of Aboriginal housing organizations to define and deliver front-line services themselves.

A key policy challenge is that there has been little systematic evaluation of community-driven service provision, the key 'success factors' that underlie the most dynamic programs, and the policy and institutional frameworks needed to enable local front-line innovation. One promising direction would be to support more community-based needs assessments, evaluation and outcomes research.

More broadly, the great potential of such front-line innovation is not currently being realized because there are few ways to systematically share and build upon 'best practices' and 'lessons learned'. The policy challenge here is how to systematically identify promising innovations, evaluate and assess their potential beyond their local circumstances, share information widely on lessons learned, and scale up promising initiatives as appropriate -- all to create a permanent cycle and culture of front-line innovation on housing and other social determinants of health. A demonstration project to create effective forums and infrastructure for knowledge management of health-supportive housing and other related innovation and initiatives would be one way to make progress.

SUPPORTING COMPREHENSIVE COMMUNITY INITIATIVES

Canadian and international research highlights the potential of comprehensive community initiatives as a promising response to complex health and social issues, like homelessness and insecure housing (73). These initiatives bring together a range of service providers, residents, municipal and

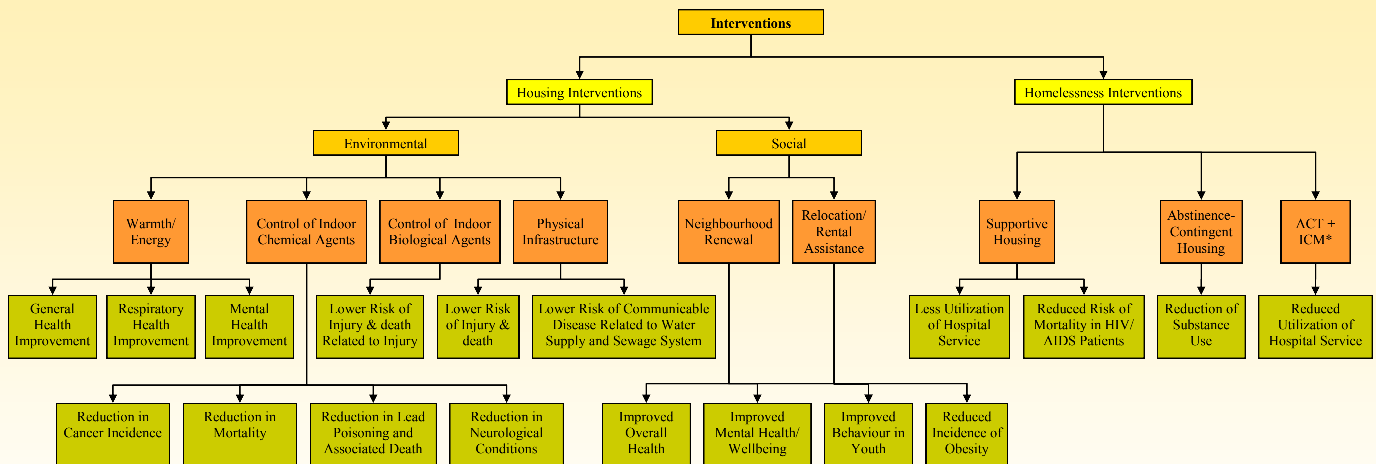
other levels of government, public health and other agencies, community organizations, advocates and local networks to jointly address pressing social problems and coordinate service delivery and capacity building. The cross-country Vibrant Communities initiatives, in which communities have built broad collaborative poverty reduction programs and campaigns, are good examples. Initial research shows that comprehensive community initiatives show promise in building individual and community resources to address poverty, employability, skills building and community development, and in connecting and mobilizing broad local collaborations around common issues. To be successful, these initiatives require organizational capacity, supportive policy environments and flexible and significant resources.

Conclusion

Complex health and social concerns – such as homelessness and insecure housing, especially as it affects vulnerable populations – require complex and often long-term interventions. Effective interventions engage multiple actors, including a variety of government departments, community-based organizations and private sector interests. The kind of comprehensive policy responses that show the most promise require effective leadership by key stakeholders along with policy coordination and cross-sectoral action.

Each of the components of successful interventions – enhanced organizational capacity, supportive policy environments, flexible and significant resources – requires particular and ongoing attention. Already, there is growing attention to these vital building blocks. The work in this area is necessarily incremental – laying a foundation based on promising practices, and then building an effective repertoire of program and policy interventions. The first stage in this process is to continue to map promising and successful initiatives and to identify critical factors for success. Seeding new initiatives will also provide vital new information to guide ongoing development.

APPENDIX : CONCEPTUAL CHART OF HOUSING INTERVENTIONS & HEALTH OUTCOMES



*ACT stands for assertive community treatment, and ICT stands for intensive case management

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