Chapter 2.1

The Relationship Between Homelessness and Health: An Overview of Research in Canada

C. JAMES FRANKISH, STEPHEN W. HWANG, AND DARRYL QUANTZ

Canada has long had an international reputation for high quality of life. For a growing number of Canadians, homelessness has become a grim reality and obtaining shelter part of a daily struggle (Begin et al., 1999). Research on homelessness is essential for policy-makers, program planners, service providers, and community groups. This knowledge can play an important role in public education and awareness campaigns, policy decisions, resource allocation, program development, and program or policy evaluation (Quantz & Frankish, 2002). The identification of needs and priorities for research on homelessness is, therefore, a valuable undertaking.

The two primary goals of this article are to provide an overview of previous research on homelessness and the relationship between homelessness and health (with a main focus on Canada), and to spur discussion regarding strategic directions for future research. The National Homelessness Initiative has called for a comprehensive Canadian research agenda to "lay the foundation for understanding the root causes of homelessness, support policy development and serve as a resource for

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accountability and reporting." Development of this agenda will require active engagement by a wide range of stakeholders, including homeless people, those at risk of becoming homeless, service providers and advocates for homeless people, government representatives, researchers and research funding agencies.

Literature review

A variety of strategies were used to identify literature on homelessness that reflected diversity in both geographical and topical focus. This was deemed essential considering that many important sources of information are found in reports from government and community agencies, in addition to the peer-reviewed academic literature. This article is not a comprehensive review of the literature on homelessness in Canada, but rather an effort to frame the different types and areas of research for the purpose of developing future work.

An initial search strategy involved the use of electronic databases, including major social sciences, health and humanities databases. A second strategy sought out examples of literature from government, community, advocacy and service websites. Examples of homelessness research, program descriptions and policy documents were collected. Canadian literature was the primary target of these searches, but review papers from international sources were also included for comparison purposes and to provide additional examples of interventions. Only documents that identified homelessness as a major focus were collected. Papers and reports on housing policy and programs were only included if they focused on homelessness. General reports on housing policy and programs were excluded. Only literature and reports published since 1990 in English were reviewed.

Collected documents were reviewed and categorized. Research was defined broadly to include the systematic generation of new knowledge through a variety of means, including descriptive reports. A more restrictive definition (for example, one based on specific methods such as controlled trials) would have excluded a large proportion of the literature on homelessness in Canada. Research within the following categories were included:

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- conceptual research (examining the definition/meaning of homelessness);
- environmental scans (documenting the extent of homelessness and health and social issues related to homelessness);
- methods research (focusing on the development of new tools for studying homelessness);
- needs assessments (focusing on the needs of the homeless as expressed by the homeless and service providers);
- evaluation research (describing the process and outcomes of programs and policies);
- intervention research (examining the effectiveness of programs and services).

The scope of homelessness in Canada

Many efforts have focused on obtaining a clearer understanding of the nature and extent of homelessness in Canada. Canada's first efforts to provide an estimate of the homeless population began in 1987 through the work of the Canadian Council on Social Development (Begin et al., 1999). Further efforts at measuring homelessness have been undertaken by Statistics Canada. Data from the 2001 Census indicated that over 14,000 individuals were homeless in this country (Statistics Canada, 2002). Most advocates and researchers, however, believe that these numbers vastly under-represent the problem, and new strategies are necessary to accurately capture usable information. Other strategies include the development of the Homeless Individuals and Families Information System (HIFIS) that focuses on capturing more complete information on shelter users in cities across Canada (Canada Mortgage and Housing Corporation, 1999). Specific cities in Canada have also initiated local homelessness counts in an attempt to measure the numbers of homeless and at-risk persons in their jurisdictions.

Examples from large urban areas include a report on homeless and at-risk persons in the Greater Vancouver region (Woodward et al., 2002), the Toronto Report Card on Homelessness (City of Toronto, 2000), and the City of Calgary Homeless Count (Stroik, 2004). A number of smaller cities and regions have produced similar reports.

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The challenges associated with obtaining a clear picture of the scope of homelessness in Canada included the lack of a consistent definition of homelessness, difficulty in identifying homeless persons, the transient nature of homelessness, difficulty in communicating with homeless persons, and lack of participation by local agencies (Bentley, 1995). The definition of homelessness is particularly important. Homelessness can be viewed along a continuum, with those living outdoors and in other places not intended for human habitation at the extreme, followed by those living in shelters. These individuals are referred to as being absolutely homeless. Homelessness also includes people who are staying with friends or family on a temporary basis, often referred to as "couch surfing" or being "doubled up." Those at risk of being homeless include persons who are living in substandard or unsafe housing and persons who are spending a very large proportion of their monthly income on housing. The definition of homelessness is not trivial. It can have profound consequences for policy, resource allocation, and parameters used to evaluate the success of homelessness initiatives. This article focuses on research and interventions related to absolute homelessness. Much of this information has implications for those who are at risk.

Other important aspects of homelessness in Canada are the impact of urbanization, the heterogeneity of the homeless population, and the complexity of the causes of homelessness. Canada is experiencing a rapid and continuing trend towards urbanization, as indicated by the fact that almost 80 percent of Canadians now live in cities with populations of 10,000 or more. Although homelessness is a problem in rural areas of Canada, it has become an obvious crisis in large urban areas, where availability of affordable housing is limited due to a loss of rental units and a shortage of social housing (Woodward et al., 2002).

Heterogeneity within the homeless population is important to recognize. Homelessness affects single men and women, street youth, families with children, people of all races and ethnicities, lifelong Canadians, immigrants and refugees, and these groups often face different health issues (Hwang, 2001). For most individuals, homelessness represents a transient one-time crisis or an episodic problem; for a distinctly different subgroup of individuals, homelessness is a chronic condition (Kuhn & Culhane, 1998).

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There is no single pathway to homelessness. Homelessness is the result of a complex interaction of factors at the individual level such as adverse childhood experiences, low educational attainment, lack of job skills, family breakdown, mental illness and substance abuse (Herman et al., 1997; Koegel et al., 1995; Susser et al., 1993) and at the societal level, such as poverty, high housing costs, labour market conditions, decreased public benefits, and racism and discrimination (Jencks, 1994; O'Flaherty, 1996; Schwartz & Carpenter, 1999) (see Figure 1).

Research on homelessness has often reflected disciplinary traditions, with health researchers focusing on individual risk factors and social scientists looking at marginalization, exclusion and economic forces. This is important because the formulation of the causes of homelessness can become highly politicized and can influence public perceptions and policies related to homelessness.

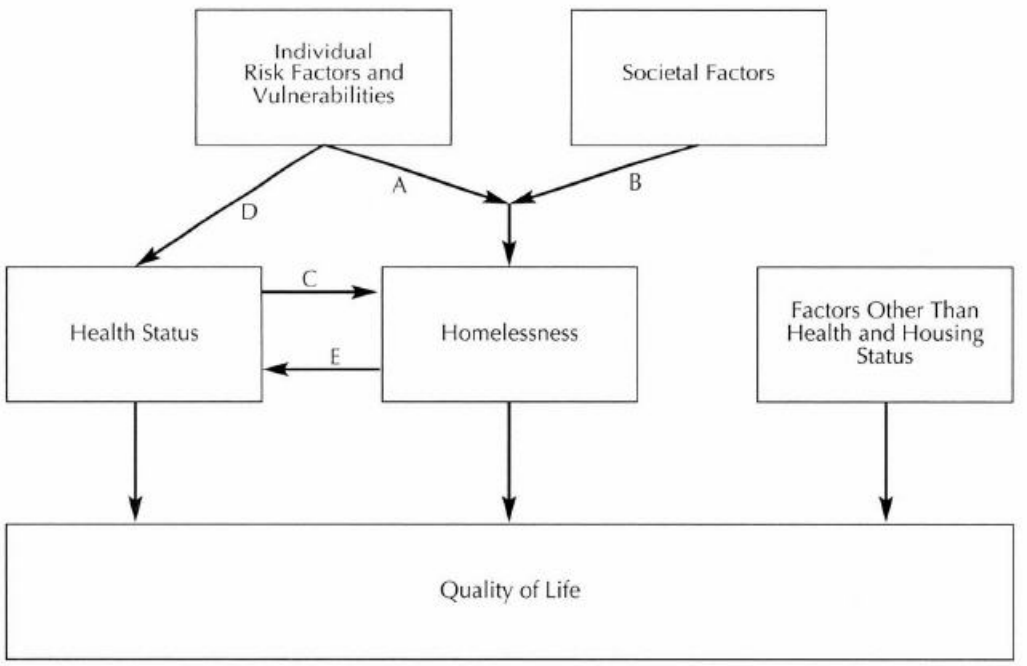

Figure 1. Causal pathways relating homelessness, health, and quality of life.

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The health status of homeless persons

Causal Pathways

Homelessness is clearly associated with poor health. In reviewing the research in this area, a schema of causal pathways underlying this association may be useful. Homelessness has a direct adverse impact on health (Figure 1, arrow C). Crowded shelter conditions can result in exposure to tuberculosis or infestations with scabies and lice, and long periods of walking and standing and prolonged exposure of the feet to moisture and cold can lead to cellulitis, venous stasis and fungal infections (Stratigos & Katsambas, 2003). However, the relationship between homelessness and ill health is far more complex (Hwang, 2002). Many risk factors for homelessness, such as poverty and substance use (Figure 1, arrow A), are also strong independent risk factors for ill health (Figure 1, arrow D). Many people who are homeless remain at risk for poor health even if they obtain stable housing. In addition, certain health conditions (particularly mental illness) may contribute to the onset of homelessness and then in turn be exacerbated by the homeless state (Figure 1, arrows C and E). Finally, improved health and adequate housing are means of achieving the ultimate goal of improved quality of life. Researchers are now recognizing the need to understand and measure the impact of interventions on quality of life, in addition to housing and health outcomes (Lehman et al., 1995).

Specific Health Conditions

Homeless people are at greatly increased risk of death. Mortality rates among street youths in Montreal are nine times higher for males and 31 times higher for females, compared to the general population (Roy et al., 1998a). Men using homeless shelters in Toronto are two to eight times more likely to die than their counterparts in the general population (Hwang, 2000, 2002).

The prevalence of mental illness and substance abuse is much higher among homeless adults than in the general population. Contrary to popular misconceptions, only a small proportion of the homeless population suffers from schizophrenia. The lifetime prevalence of schizophre-

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nia is only 6 percent among Toronto's homeless (Canadian Mental Health Association, 1998). Affective disorders are more common, with lifetime prevalence rates of 20-40 percent (Fischer & Breakey, 1991; Susser et al., 1993). Alcohol use disorders are widespread, with lifetime prevalence rates of about 60 percent in homeless men (Fischer & Breakey, 1991). Cocaine and marijuana are the illicit drugs most often used by homeless Canadians (Smart & Adlaf, 1991). Patterns of substance abuse and mental illness vary across subgroups of homeless people: single women are more likely to have mental illness and less likely to have substance use disorders than single men (Fischer & Breakey, 1991). Female heads of homeless families have far lower rates of both substance abuse and mental illness than other homeless people (Shinn et al., 1998).

Homeless people are at increased risk of tuberculosis (TB) due to alcoholism, poor nutritional status and AIDS (Advisory Council for the Elimination of Tuberculosis, 1992). In addition, the likelihood of exposure to TB is high in shelters due to crowding, large transient populations, and inadequate ventilation (Nolan et al., 1991). Canadian data on the incidence and molecular epidemiology of TB among homeless people are lacking. In the United States, more than half of TB cases among homeless people represent clusters of primary tuberculosis, rather than reactivation of old disease (Barnes et al., 1996). Treatment of active TB in the homeless is complicated by loss to follow-up, non-adherence to therapy, prolonged infectivity and drug resistance (Pablos-Mendez et al., 1997). Directly observed therapy results in higher cure rates and fewer relapses (Advisory Council for the Elimination of Tuberculosis, 1992). Homeless persons with positive skin tests without active TB may be considered for directly observed prophylaxis (Nazar-Stewart & Nolan, 1992).

Among homeless youth in Canada, risk factors for HIV infection include survival sex, multiple sexual partners, inconsistent use of condoms and injection drug use (Roy et al., 1999). Infection rates were 2.2 percent and 11.3 percent among homeless youths seeking HIV testing at two clinics in Vancouver in 1988 (Manzon et al., 1992). In contrast, the prevalence of HIV infection was only 0.6 percent in a group of homeless youths surveyed in Toronto in 1990 (Wang et al., 1991). In a 1997 study of homeless adults in Toronto, the HIV infection rate was 1.8 percent,

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with increased risk observed among individuals with a history of using IV drugs or crack cocaine (Goering et al., 2002). A study of homeless adults and runaway youth in 14 US cities in 1989–92 found HIV infection rates ranging from 0 to 21 percent with a median of 3.3 percent (Allen et al., 1994).

Sexual and reproductive health are major issues for street youth. Studies of street-involved youth in Montreal have documented high rates of involvement in survival sex, sexually transmitted diseases and unplanned pregnancy (Roy et al., 1998b, 1999, 2003). Anecdotal reports suggest that pregnancy is common among street youths in Canada; in the US, 10 percent of homeless female youths aged 14-17 years are currently pregnant (Greene & Ringwalt, 1998).

Injuries and assaults are a serious threat to the health of homeless people. In Toronto, 40 percent of homeless persons have been assaulted and 21 percent of homeless women have been raped in the past year (Crowe & Hardill, 1993). Unintentional injuries due to falls or being struck by a vehicle, as well as drug overdoses, are leading causes of mortality among homeless men in Toronto (Roy et al., 1998a).

Homeless adults suffer from a wide range of chronic medical conditions, including seizures, chronic obstructive pulmonary disease and musculoskeletal disorders (Crowe & Hardill, 1993). Hypertension and diabetes are often inadequately controlled (Hwang & Bugeja, 2000; Kinchen & Wright, 1991). Homeless people in their forties and fifties often develop health disabilities that are commonly seen in persons who are decades older (Gelberg et al., 1990). Oral and dental health is poor (Gibson et al., 2003; Lee et al., 1994; Pizem et al., 1994).

Homeless people face many barriers that impair their access to health care, even under the Canadian system of universal health insurance. Many homeless persons do not have a health card, are unable to make or keep appointments, or lack continuity of care due to their transience (i.e., no permanent address or telephone). Homelessness entails a daily struggle for the essentials of life. Competing priorities may impede homeless people from obtaining needed health services (Gelberg et al., 1997). Access to mental health care and substance abuse treatment remains a crucial issue (Wasylenki et al., 1993). Obtaining prescription medications can be problematic and adhering to medical recommenda-

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tions regarding rest or dietary modification is often impossible (Hwang & Bugeja, 2000; Hwang & Gottlieb, 1999). Studies from the United States have shown that homeless adults have high levels of health-care utilization and often obtain care in emergency departments (Kushel et al., 2002; Kushel et al., 2001). Homeless people are hospitalized up to five times more often than the general public (Martell et al, 1992) and stay in the hospital longer than other low-income patients (Salit et al., 1998).

Interventions to reduce homelessness and improve the health of homeless persons

This section provides an overview of the wide array of interventions reported within the literature that have attempted to decrease the prevalence of homelessness and improve the health of homeless people. We have classified these interventions into four clusters using a taxonomy derived from the literature, theory and past experience:

- biomedical and health care strategies;
- educational and behavioural strategies;
- environmental strategies;
- policy and legislative strategies.

For each cluster, we provide a brief description, examples of interventions of that type, and a summary of research gaps and opportunities within that cluster. These clusters are not mutually exclusive; some interventions may fit under more than one cluster.

Biomedical and Health Care Strategies

This cluster of strategies focuses on medical interventions to improve health status and includes primary health-care programs, clinical services through outreach programs, psychiatric treatment teams and substance abuse treatment. Interventions that are purely biomedical, however, may improve the health of homeless people but fail to address their homelessness. Thus, interventions that combine health care with housing and other social services need to be considered.

Only a small number of studies have examined the effectiveness of biomedical or health care interventions for homeless people using a rigorous controlled design. Most of these studies have focused on homeless

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persons with mental illness or substance abuse. For example, studies have confirmed the effectiveness of the Assertive Community Treatment (ACT) model for homeless people with severe mental illness. ACT involves a team of psychiatrists, nurses, and social workers that follows a small caseload of clients in the community and provides high-intensity treatment and case management (Lehman et al., 1997; Wasylenki et al., 1993). Compared to usual care, patients receiving ACT have fewer psychiatric in-patient days, more days in community housing, and greater symptom improvement.

A recent example of a combined housing and health service program is the New York City Housing Initiative (Metraux et al., 2003). This program made resources available to create 3,300 housing units and social services support for mentally ill homeless persons. Over two years, people in the program stayed in shelters an average of 128 days fewer than similar people in a control group. The treatment of substance abuse in homeless persons has been the subject of a number of studies; a recent review of the literature is available (Zerger, 2002).

Gaps in this area include a lack of research on interventions for homeless youth or families with children, limited research on interventions to address health problems other than mental illness or substance abuse, and little or no data on the effectiveness of various models of primary care delivery for the homeless. Opportunities for future research include a focus on "harm-reduction" programs that seek to minimize adverse health impacts among homeless substance users rather than focusing exclusively on abstinence. Examples include "safe injection sites" for drug users and shelter-based controlled drinking programs in which residents are provided with alcohol on a metered schedule.

Educational and Behavioural Strategies

This cluster of strategies seeks to prevent homelessness or improve the health status of homeless persons through educational programs and behavioural change. Educational programs may focus on homeless people, individuals at risk of homelessness, or the general public. Efforts to promote behavioural change in the homeless include harm-reduction programs, counselling, and referral services. Education of health care workers, shelter workers, and service providers is included in these

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strategies. For example, the Streethealth Coalition in Ottawa provides prevention and education on infectious diseases and health conditions often found in the homeless (Canada Mortgage and Housing Corporation, 1995). The Federation of Non-Profit Housing Organizations of Montreal promotes education on a range of basic life skills. Ontario's Urban Aboriginal homelessness strategy includes culturally appropriate programs, such as cultural counselling and programs, and employment services.

Examples of programs targeting homeless or at-risk individuals include tenants' rights organizations, eviction prevention services, and groups such as the Safe Homes for Youth in Ottawa, which provides education and support for high-risk youth (Canada Mortgage and Housing Corporation, 1995). Alternatively, educational initiatives may focus on increasing public and government awareness of homelessness issues. Examples include a public awareness campaign in Ontario to aid the public in assisting homeless persons (Provincial Task Force on Homelessness, 1998) and efforts by advocacy groups such as the Canadian Housing and Renewal Association, the Centre for Equality Rights in Accommodation and the Housing and Homelessness Network in Ontario to promote changes in government policy related to homelessness.

Very little evaluation research has been undertaken on health education programs for the homeless (May & Evans, 1994). This constitutes a major research gap. Reports of educational and behavioural interventions have often been limited to basic program information. More in-depth descriptions of development and implementation processes are needed; such information could provide a valuable resource for service providers seeking to begin similar initiatives. Opportunities for future research include a need for conceptual research on educational and behavioural interventions for homeless people, studies on how to make these interventions more accessible and appealing for the homeless population, and rigorous studies to evaluate the outcomes of such programs. Such efforts could benefit from attention to three key factors: motivation of individuals toward change through altered knowledge, attitudes, beliefs and values; enabling individuals to take action through skill building and availability and accessibility of supportive resources; and reward or reinforcement of positive action (Green & Kreuter, 1999).

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Environmental Strategies

Environmental strategies are attempts to alter the social, economic, or physical environment in a specific setting to create a supportive environment that enables and facilitates behaviour change. This approach recognizes that the environment or context in which homelessness occurs may be altered to enhance desired behaviours or limit undesirable actions. The environment or context may vary in scale from a single program (e.g., a supportive housing site or outreach program) to a specific neighbourhood to an entire city, province, or country.

Examples of environmental strategies at the program level are Street City in Toronto, which provided services to homeless persons in an environment designed to engage individuals unaccustomed to living indoors (Canada Mortgage and Housing Corporation, 1995), and the Lookout Emergency Aid Society in Vancouver, which provided both short-term shelter as well as long-term supportive housing for adult men and women who were unable independently to meet basic daily needs (Canada Mortgage and Housing Corporation, 1999). A macro-level example is the federal government's Supporting Community Partnerships Initiative (SCPI), which seeks to promote cooperation and coordination at a local level and to provide "communities with the tools and resources needed to set their own course of action" to respond to homelessness in their community.

Research undertaken in environmental strategies has largely taken the form of environmental scans and needs assessments. Two reviews have documented and categorized a number of Canadian programs/projects that included environmental strategies (Canada Mortgage and Housing Corporation, 1995, 1999). A number of projects have provided examples of community development processes in the homeless population. Researchers have outlined lessons learned while conducting community-based research on homelessness in Toronto (Boydell et al., 2000). Others have looked at factors that restrict or facilitate community participation by disadvantaged persons (Boyce, 2001). Opportunities for research include conceptual work to organize and frame these efforts, in-depth evaluations to ensure that programs have measurable

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outcomes, and translation of information into a form useful for planning (Quantz & Frankish, 2002).

Policy and Legislative Strategies

This cluster includes efforts to reduce homelessness through policies and legislation related to poverty and its amelioration, social housing, public health, immigration and law enforcement. Recognizing that a variety of policy, regulatory, legislative and political factors create a climate that has an enormous impact on homelessness and its management, these strategies focus on the creation of "healthy public policies."

Examples of current initiatives include the government of Alberta's framework outlining policy responses to homelessness with respect to housing and support services, local capacity development and governmental coordination (Alberta Community Development, 2000). The 1999 Vancouver Agreement is an example of collaboration at the federal, provincial and municipal levels to focus on economic, social and community development in the Downtown Eastside neighbourhood, where homelessness is a major issue. Examples of public health policies that have been implemented or considered include safe-injection sites, needle exchange programs and other harm reduction policies.

These strategies are foundational to all others, because the absence of a strong policy-legislative approach to homelessness will seriously limit and undermine efforts in other areas. There is a need for work to examine the impact of various health and social policies on the lives of homeless people. Particularly vital (Classer et al., 1999) areas include welfare policy as it affects adults and families with children, policies that impact young women (Novac et al., 2002), and practices in the child welfare system that may contribute to youth homelessness (Appathurai, 1991; Kufeldt, 1991). Comparing policies in different jurisdictions and their impact on homelessness can provide important insights (Classer et al., 1999; Eberle et al., 2001). Government frameworks on homelessness call for efforts to ensure accountability in reaching specific targets and goals. But, there has been relatively little work on policy evaluation in this area. Future research has the potential to provide essential information to guide future policy-making.

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Strategic Directions for Future Research on Homelessness

Based our review, we conclude that Canadian research in the area of homelessness and health faces important challenges. First, the complexity of the issue of homelessness requires the involvement of a wide range of stakeholders, including all levels of government, service providers, health professionals, biomedical/social science researchers, community groups and homeless people themselves. Both horizontal integration (across various sectors such as health, law, housing, social services) and vertical integration (across federal, provincial, territorial, and local governments, and within communities) are needed.

Second, the diversity of values, beliefs and perspectives on homelessness must be acknowledged, and public discourse is needed on the causes of homelessness in Canada and the appropriate response to this problem.

Third, consensus needs to be reached on the definition of homelessness and the measures by which efforts to reduce homelessness or improve the quality of life of homeless people will be judged.

Fourth, researchers need to design and conduct studies on homelessness that are policy-relevant and develop strategies to translate their research into policy and practice. There has been little research evaluating the effects of policy on homelessness or quality of life among the homeless and the vast majority of programs for homeless people have not been evaluated. Many of the evaluations that have been conducted are of modest quality, but at the present time, the resources and expertise that would allow for a robust evaluation are often not available at the local level.

These challenges should not deter or diminish current interests and efforts around research on homelessness and health in Canada. Rather, they call for renewed commitment, strategic planning and wise investment of human and fiscal resources. Within all six categories of research there is significant need for further development. Conceptual research on the definition and meaning of homelessness can provide greater clarity in ongoing discussions of homelessness among advocacy groups and policy-makers. Environmental scans that document the extent of homelessness and the health problems of homeless people are useful, but they

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remain primarily descriptive in nature. There is a need to move from this understanding to outcome measures and interventions. Methods research could make significant contributions through the development of valid/precise measures of quality of life in homeless people and individuals at risk. Needs assessment research needs to be systematically linked to objectives and interventions. Finally, more high-quality evaluation and intervention research is urgently needed.

Community involvement is vital in any work on homelessness and its conceptualization, measurement or change. While this may seem self-evident, the reality is that many groups often have limited capacity for engagement in these efforts. Concrete efforts are needed to ensure that communities are able to contribute to, and participate effectively in, the study of homelessness and use of research findings. The primary need is capacity-building to allow communities to initiate projects in equitable partnerships with government and academia. Resources must be made available to both promote research by various community groups and to teach research skills such as proposal writing and research design. Potential strategies include workshops, access to research courses at academic institutions, the development of easy-to-use research information, and financial support to allow community members to participate in these activities.

The issue of dissemination remains a key challenge in homelessness research. The question is how we can best communicate the lessons, experiences and best practices of dealing with homelessness. How can this information be communicated in a variety of forms and media that are appropriate to their target audiences? Significant barriers exist, including time, personnel, research capacity and resources.

We suggest three strategic priorities towards a better understanding of homelessness and the implementation and evaluation of efforts to reduce homelessness and improve the lives and quality of life among the homeless. The first priority is a nationwide effort to achieve a core, consensus definition and set of indicators related to the definition and extent of homelessness. Second, we need clear definitions and measures for a) the health status of homeless (and at-risk) groups; b) the use of the health and social services by homeless people; and c) relations between homelessness and broader, non-medical determinants of health (e.g., income,

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education, employment, social support, gender, culture, etc.). This effort to create a common dataset would not preclude communities from collecting additional data of local interest and value.

A third priority must be the development of research infrastructure. This effort would include the development of demonstration projects or surveillance systems that could reliably collect data on the indicators of homelessness. Government-funded projects that purport to address either the processes or outcomes of homelessness should be subjected to an "evaluability" assessment. Groups such as the Canadian Consortium for Health Promotion Research could assist all levels of government in determining whether current projects/programs are in fact, evaluable. We suspect that many projects and programs presently lack the necessary and sufficient conditions to be fairly evaluated. This effort could move research toward a model of program evaluation that sets realistic expectations in terms of measurement of focused aspects of homelessness, and one that provides sufficient time and resources to allow for appropriate assessment of homelessness interventions and their effects.

We encourage investment of the needed resources toward the science and application of research on homelessness. Building on its traditions in health promotion and its strengths in population health research, Canada is well placed to be a world leader in intervention research on homelessness. This can be a vehicle for building community health. These efforts may generate additional benefits, including commitment to reducing health disparities, new partnerships across academic disciplines, and intersectoral work on the determinants of health.

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